Final Environmental Assessment

KŌʻELE PROJECT DISTRICT AMENDMENT AT KŌʻELE, LĀNAʻI, HAWAIʻI

VOLUME II OF II (Appendices)

Prepared for:

Lanai Resorts, LLC, a Hawaiʻi limited liability company doing business as Pūlama Lānaʻi

February 2022

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MUNEKIYO HIRAGA

Planning. Project Management. Sustainable Solutions.

REF-1

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APPENDIX

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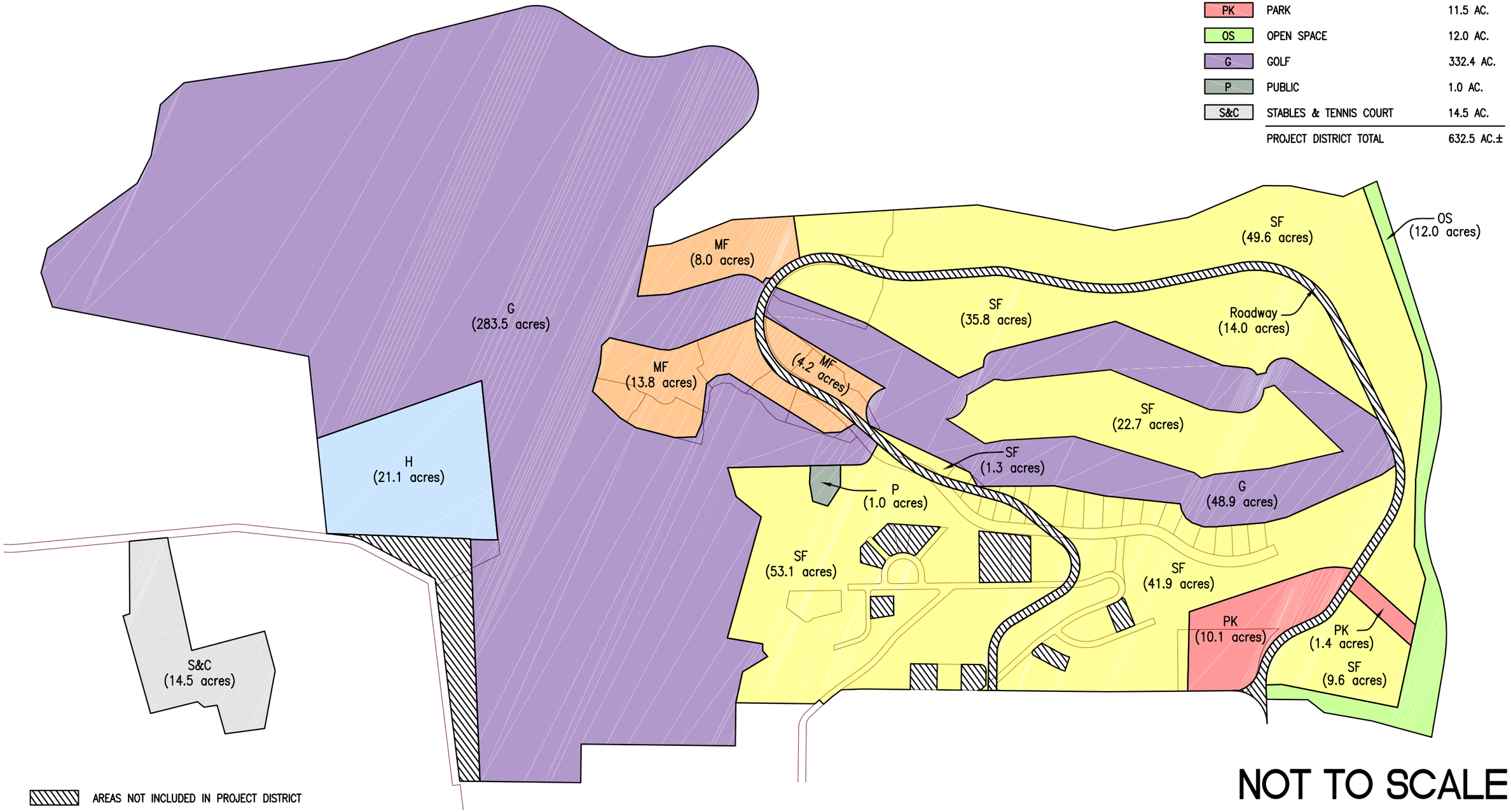
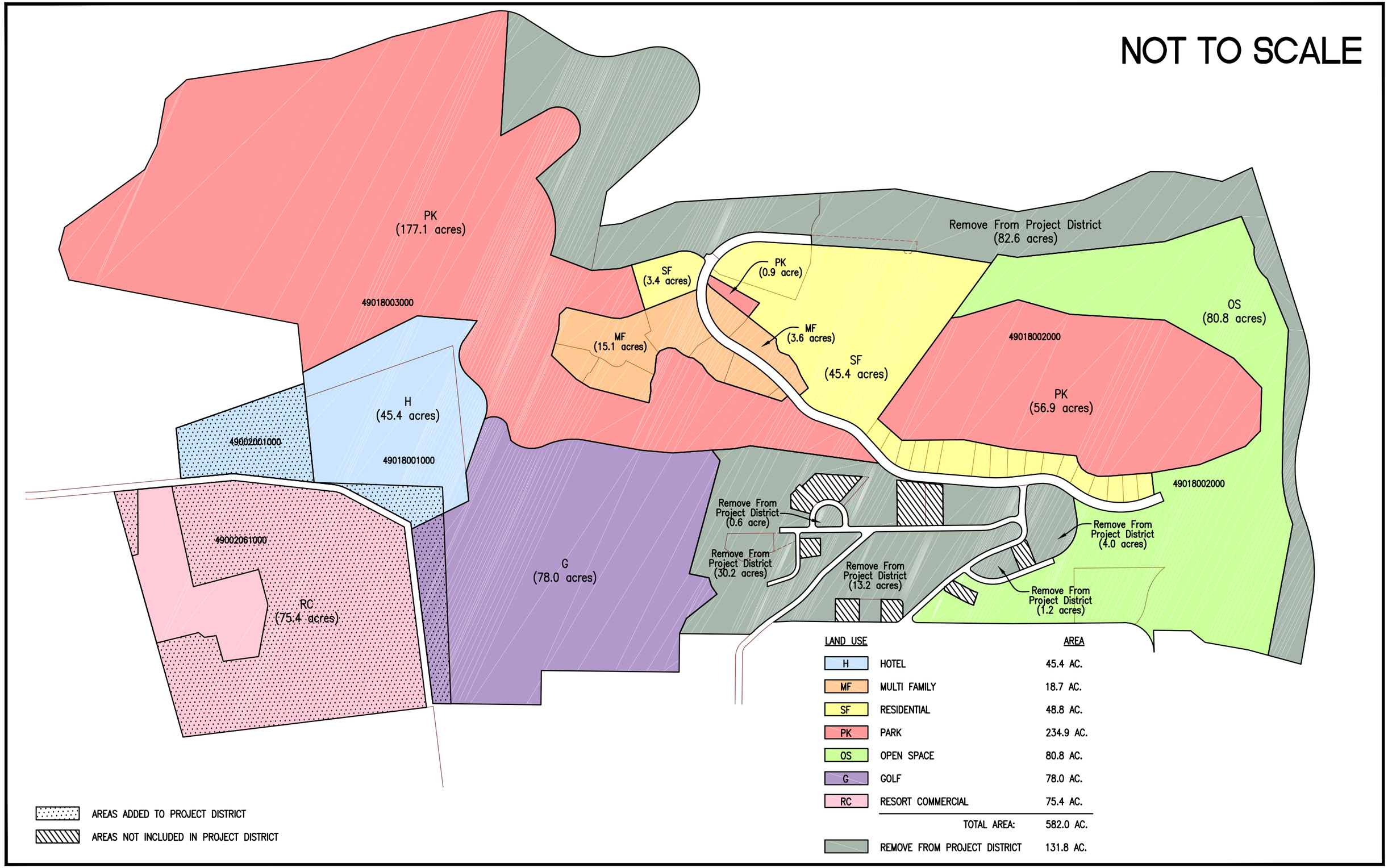
Existing Kōʻele Project District Map

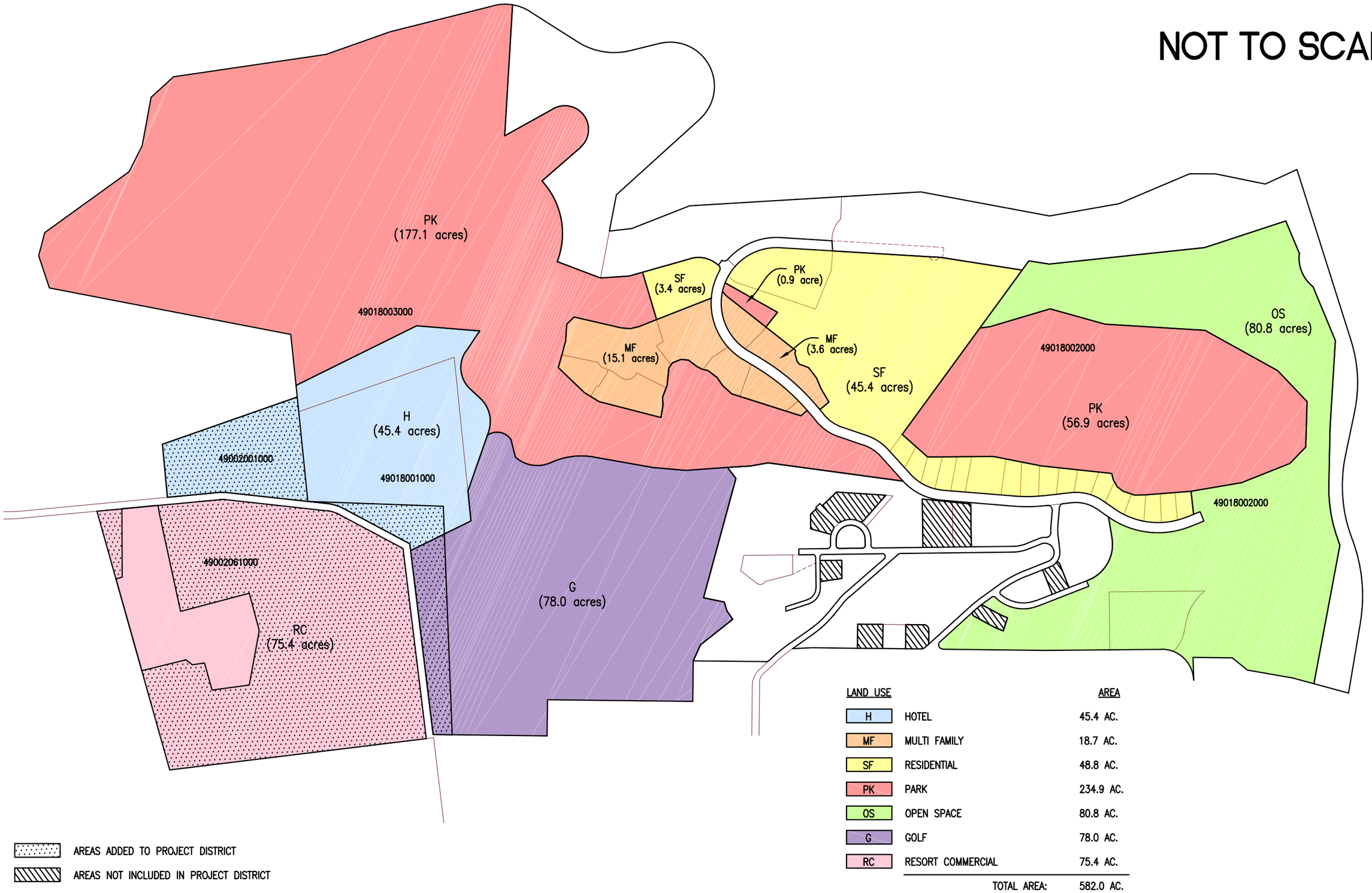
LAND USE		AREA
H	HOTEL	21.1 AC.
MF	MULTI FAMILY	26.0 AC.
SF	RESIDENTIAL	214.0 AC.
PK	PARK	11.5 AC.
OS	OPEN SPACE	12.0 AC.
G	GOLF	332.4 AC.
P	PUBLIC	1.0 AC.
S&C	STABLES & TENNIS COURT	14.5 AC.
	PROJECT DISTRICT TOTAL	632.5 AC.±



Transition Kōʻele Project District Map



Proposed Kō‘ele Project District Map



LAND USE		AREA
H	HOTEL	45.4 AC.
MF	MULTI FAMILY	18.7 AC.
SF	RESIDENTIAL	48.8 AC.
PK	PARK	234.9 AC.
OS	OPEN SPACE	80.8 AC.
G	GOLF	78.0 AC.
RC	RESORT COMMERCIAL	75.4 AC.
	TOTAL AREA:	582.0 AC.

PROPOSED AMENDMENTS TO MAUI COUNTY CODE, **CHAPTER 19.71 LĀNAʻI** PROJECT DISTRICT 2 **(KŌʻELE)**

APPENDIX

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Chapter 19.71 LANAI PROJECT DISTRICT 2 (KOELE)

19.71.010 Purpose and intent.

A. The purpose and intent of project district 2 at Koele, Lanai, is to provide for a flexible and creative approach to development which considers physical, environmental, social, and economic factors in a comprehensive manner.

B. The purpose and intent of project district 2 at Koele is to establish a low-density ~~primarily~~ residential and recreational development with hotel facilities in an upland rural setting.

C. This project district is to be complementary and supportive of services offered in Lanai city and will provide housing and recreational opportunities to island residents. Uses include, but are not limited to, single-family residential, multifamily residential, hotel, open space, park, resort commercial, and golf course.~~and public.~~

(Ord. 2139 § 2, 1992: Ord. 1580 § 1 (part), 1986)

19.71.020 Residential PD-L/2.

A. Permitted Uses. Within the residential districts, the following uses shall be permitted:

1. Principal uses:

a. Single-family detached dwellings;

~~Short term rental homes, subject to the provisions of chapter 19.65 of this title;~~

b. Greenhouses, flower and truck gardens, and nurseries; provided there shall be no retailing or transacting of business on the premises;

~~a.~~c. Parks and playgrounds.

2. Accessory uses and structures;

a. Day care nurseries, kindergartens, nursery schools, child care homes, day care homes, day care centers, nurseries, preschool kindergartens, babysitting services, learning pods, home schools, and other like facilities located in private homes used for child care and learning services. These facilities shall serve six or fewer children at any one time on lot sizes of less than seven thousand five hundred square feet, eight or fewer children at any one time on lot sizes of seven thousand five hundred or more square feet but less than ten thousand square feet, or twelve or fewer children at any one time on lot sizes of ten thousand or more square feet;

b. Trash enclosures;

c. Garages,

~~a.~~d. Subordinate uses and structures that are determined by the Director of Planning to be clearly incidental and customary to the permitted uses listed herein.

3. Special accessory uses:

~~a. Green houses,~~

a. Accessory dwelling for a lot with .5 acre or more, subject to the provisions of chapter 19.35 of this title.

B. Development standards for residential districts shall be:

1. Minimum lot area, six thousand square feet;
2. Minimum lot width, sixty feet;
3. Minimum building setback:
   a. Front yard, fifteen feet,
   b. Side yard, six feet, ten feet for the second story of a structure,
   c. Rear yard, six feet, ten feet for the second story of a structure;
4. Maximum overall net density, two and one-half units per acre;
5. Maximum height, two stories not to exceed thirty feet.

(Ord. 1580 § 1 (part), 1986)

19.71.030 Multifamily PD-L/2.

A. Permitted Uses. Within multifamily districts, the following uses shall be permitted:

1. Principal uses:
   a. Single-family detached buildings,
   b. Apartment houses,
   c. Duplexes;
2. Accessory uses and structures.
   a. Day care nurseries, kindergartens, nursery schools, child care homes, day care homes, day care centers, nurseries, preschool kindergartens, babysitting services, learning pods, home schools, and other like facilities located in private homes used for child care and learning services. These facilities shall serve six or fewer children at any one time on lot sizes of less than seven thousand five hundred square feet, eight or fewer children at any one time on lot sizes of seven thousand five hundred or more square feet but less than ten thousand square feet, or twelve or fewer children at any one time on lot sizes of ten thousand or more square feet;
   b. Trash enclosures;
   c. Garages;
   d. Subordinate uses and structures that are determined by the Director of Planning to be clearly incidental and customary to the permitted uses listed herein.

B. Development standards for multifamily districts shall be:

1. Minimum lot area, one acre;

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2. Minimum lot width, one hundred ten feet;
3. Minimum building setback:
   a. Front yard, fifteen feet,
   b. Side yard, ten feet, fifteen feet for two stories,
   c. Rear yard, ten feet, fifteen feet for two stories;
4. Maximum overall net density, six units per acre;
5. Maximum floor area ratio, 0.5;
6. Maximum height, two stories not to exceed thirty feet.

(Ord. 2139 § 3, 1992; Ord. 1580 § 1 (part), 1986)

19.71.040 Hotel PD-L/2.

A. Permitted Uses. Within hotel districts, the following uses shall be permitted:
   1. Principal uses:
      a. Hotel;
      ~~d.~~b. Automobile parking lots and buildings.
   2. Accessory uses and structures;
      a. Trash enclosures;
      b. Ground signs;
      c. Boundary walls and fences;
      ~~a.~~d. Subordinate uses and structures, which are determined by the Director of Planning to be incidental and customary to the permitted uses listed herein.
   ~~2.~~3. Special accessory uses:
      a. The following uses shall be operated as an adjunct to, and as part of, a hotel with said hotel having at least twenty-five rooms. Furthermore, these uses shall be operated primarily as a service to, and for the convenience of, the tenants and occupants of the hotel on which premises such services are located.
         i. Activities/information center,
         ii. Bars, nightclubs,
         ~~ii.~~iii. Fitness centers,
         ~~iii.~~iv. Flower shops,
         ~~iv.~~v. Eating and drinking establishments,
         vi. Outdoor recreation
         vii. Recreational facilities including tennis and other playing courts, horse riding stables, and equestrian trails,
         ~~v.~~viii. Spa facilities and support services,
         ix. Sundry shops,

         ~~vi.~~x. Swimming pools
         ~~vii.~~xi. Theater/auditoriums,
         xii. Ticket agencies;
         ~~viii.~~xiii. Other accessory business or service establishments that furnish goods or perform services primarily for hotel guests.
      b. The shops and businesses may be constructed as separate buildings. However, entrances to shops and businesses shall not front on a street.

B. Special Uses. Other uses may be approved by the Lanai Planning Commission subject to the provisions of section 19.510.070 of this title.~~The following are declared special uses in hotel districts, and approval of the commission shall be obtained:~~
   ~~1. Other uses of similar accessory retail character.~~

C. Development standards for hotel districts shall be:
   1. Minimum lot area, one acre;
   2. Minimum lot width, one hundred ten feet;
   3. Minimum building setback:
      a. Front yard, twenty feet,
      b. Side yard, ten feet,
      c. Rear yard, fifteen feet;
   4. Maximum floor area ratio, 0.8;
   5. Maximum lot coverage, forty percent;
   6. Maximum height, two stories not to exceed thirty feet, except that the ~~planning director~~Director of Planning may approve a greater height limitation for a structure where the ~~planning director~~Director of Planning determines that the increased height will enhance the appeal and architectural integrity of the structure, provided that the additional area created by the excess height shall not be used for habitation nor storage;
   7. Maximum overall net density, twelve units per acre.

(Ord. 2139 § 4, 1992: Ord. 1580 § 1 (part), 1986)

19.71.050 Park PD-L/2.

A. Permitted Uses. Within park districts, the following uses shall be permitted:
   1. Principal uses:
      a. ~~Noncommercial p~~Parks and playgrounds;
      b. Cultural and performing arts facilities;
      c. Fitness courses;
      d. Historical buildings, structures and sites, and sites or areas of scenic interest;
      e. Maintenance areas and structures;
      f. Outdoor recreation and recreational activities;

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g. Picnicking;

h. Playing courts and playfields

i. Public utilities;

j. Recreational and educational centers and facilities;

k. Sculpture gardens;

l. Trail activities

m. Zip line recreational activities;

~~d.~~n. Other similar commercial or noncommercial enterprises or activities that are not detrimental to the welfare of the surrounding area; provided such uses shall be approved by the Director of Planning as conforming to the intent of this chapter.

2. Accessory uses and structures.

a. Energy systems, small-scale; provided such use shall not cause a detrimental or nuisance effect on neighboring properties;

b. Light fixtures and light poles; provided lighting or lamp posts and lighting controls shall be full cut-off luminaries to lessen possible sea bird strikes;

c. Park furniture, including but not limited to benches, picnic tables, and fountains;

d. Botanical gardens;

e. Bazaars, fairs, food, wine, film, or other festivals that are special events and temporary in nature. "Temporary" for the purposes of this section shall mean that each festival or event may be held for no more than thirty days in a calendar year;

f. Restaurants and gift shops;

g. Pavilions;

h. Comfort and shelter stations;

i. Clubhouses for principal recreational uses, including restrooms, check-in counters or kiosks, and other ancillary facilities;

j. Parking lot, loading and unloading area;

k. Maintenance facilities;

~~e.~~l. Subordinate uses and structures that are determined by the Director of Planning to be incidental and customary to the permitted uses listed herein.

B. Development standards for park districts shall be:

1. Minimum lot area, two acres;

2. Minimum lot width, one hundred fifty feet;

3. Minimum structure setback:

a. Front yard, fifteen feet,

b. Side yard, fifteen feet,

c. Rear yard, fifteen feet;

~~4. Maximum lot coverage, five percent;~~

~~5. Maximum height, one story not to exceed twenty feet.~~

C. Non-potable water shall be used for irrigation to the extent available. Notwithstanding anything to the contrary under chapter 20.30 of this title, high level aquifer groundwater may be used for irrigation in areas where sufficient non-potable water is not available. Areas within Park districts that have continually and lawfully used high level aquifer groundwater for maintenance and irrigation shall be permitted to continue such use, subject to the provisions of section 19.500.110 of this title.

(Ord. 1580 § 1 (part), 1986)

19.71.055 Golf course PD-L/2.

A. Permitted Uses. Within the golf course district, the following uses shall be permitted:

1. Principal uses:

a. Golf courses except for miniature golf courses,

b. Historical buildings, structures, or sites;

2. Accessory Uses and Structures. Accessory uses and structures which include, but which are not limited to, the following:

a. One caretaker's dwelling unit,

b. Cart barns and other equipment, storage, and maintenance facilities,

c. One clubhouse with one snack bar, one restaurant, and a pro shop for the sale and service of golf equipment and materials used for golfing purposes,

d. Comfort and shelter stations,

e. Golf and driving range including instructional and practice facilities,

f. Greenhouses to maintain landscaping on the zoning lot,

g. Indoor and outdoor playing courts, swimming pools, and meeting rooms, provided that no major meeting places such as convention halls and athletic complexes such as tennis centers or other permanent spectator accommodations shall be permitted,

h. Off-street parking and loading,

i. Park furniture,

~~i.~~j. Public utility,

~~j.~~k. Weight, massage, sauna, and locker rooms,

l. Bazaars, fairs, food, wind, film or other festivals that are special events and temporary in nature. "Temporary" for purposes of this section shall mean that each festival or event may be held for no more than thirty days in a calendar year,

~~k.~~m. Subordinate uses and structures that are determined by the Director of Planning to be incidental and customary to the permitted uses listed herein.~~Other accessory uses for which a special use permit has been obtained in accordance with chapter 205 of the Hawaii Revised Statutes.~~

B. Development standards for the golf course district shall be:

1. Minimum lot area, fifty acres for par three or nine hole;~~ or one hundred ten acres for eighteen hole;~~

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2. Minimum building setback, all yards, fifty feet;

3. Maximum height, thirty-five feet; provided that ten feet of additional height may be permitted if a cart barn is located in the basement level of the structure, and provided further that minor utility facilities, vent pipes, fans, chimneys, and energy-savings devices shall be permitted additional height if the item is mounted on the roof of a facility; except that in no event shall this additional height exceed five feet above the governing height limit.

C. Irrigation. Notwithstanding anything to the contrary under chapter 20.30 or 14.08 of this title, golf courses in existence and operation prior to 1991 that have continually and lawfully utilized high level aquifer groundwater for maintenance and irrigation shall be permitted to continue such use, subject to the provisions of section 19.500.110 of this title.

D. Irrigation. No high level aquifer groundwater will be used for golf course maintenance or operation (other than as water for human consumption) and that all irrigation of the golf course shall be through alternative nonpotable water sources, except as may be allowed from time to time as follows:

E. The director of the department of public works and waste management, after notification of the chairperson and deputy director of the commission on water resources management, the chair of the Maui County council, the Lanai representative on the Maui County council, any appropriate subcommittee established under one of the Maui County council's standing committees to review water related issues on Lanai, the chair of the Lanai planning commission, and other state and/or county officials as appropriate, may authorize the use of potable groundwater from the high level aquifer if the director finds, in writing, there is an occurrence of an unanticipated event, including but not limited to:

3. Chemical contamination of a nonpotable source by chemicals not approved for application to golf courses in accordance with Golf Course Superintendents Association of American standards; or

4. Chemical contamination of a nonpotable source resulting in chemical concentrations not approved for golf course application by the Golf Course Superintendents Association of America, excluding, however, naturally occurring concentrations of chemicals or minerals; or

5. A water transmission line break resulting in the interruption in the delivery of nonpotable water for golf course irrigation; or

6. Failure of the pumping system used to pump nonpotable water; or

7. A failure in the sewage reclamation systems which provide irrigation water for the golf course; or

8. Draw-down of various lakes or reservoirs due to use of that water to fight fires or other similar emergencies; or

9. Due to the failure of the main electrical power feed to facilities used to irrigate the golf course with nonpotable water; and

10. Under to circumstances shall drought be deemed an unanticipated event such that a permit may be issued.

F. Prior to the director approving the use of potable high level aquifer groundwater for golf course irrigation the golf course owner shall have provided to the director:

G. Materials, reports and other supporting documents setting forth the facts and/or circumstances which gave rise to the immediate need for golf course irrigation with potable high level aquifer groundwater;

H. A plan showing that no continuous physical connection will be made between the potable and nonpotable water systems;

I. A remedial plan to restore the use of nonpotable water in as short a time as possible, and shall include manufacturing and/or shipping times of various items needed for the restoration, as appropriate, and

shall further indicate those items will be obtained and/or shipped by the most expeditious means available; and

J. A plan detailing how the following uses will be accommodated, including all sources from which water will be obtained (specifically addressing the use of existing reservoirs and lake water) and a watering/distribution plan, with the priority of uses as follows, such uses being based on a daily average of the historical record of use over the prior twelve month period immediately preceding the unanticipated event:

K. Residential/domestic consumption (excluding irrigation uses);

L. Commercial, business and resort consumption where potable water is necessarily used;

M. Agricultural consumption, and

N. Irrigation (including residential and large scale uses such as the golf course). This part of the plan shall address the order in which portions of the golf course shall cease to be watered as the situation continues.

O. The permit issued by the director shall:

P. Be issued only one time for any single unanticipated event and shall be valid for a period not to exceed thirty calendar days. The director may propose a longer period to the council and the council, by resolution, may indicate its concurrence with the director's determination that the permit should be issued for a period greater than thirty days. If the council does not so concur, the permit shall be valid for a period not to exceed thirty days. The golf course owner is prohibited from applying for a new permit for the same unanticipated event where the original permit has expired and the remedial action has not been completed, and the director is prohibited from issuing any further permits for the same unanticipated event where the original permit has expired and the remedial action has not been completed;

Q. Require the golf course owner to submit weekly reports to the director and the council regarding the status of the situation, efforts made to address the situation, and the amount of potable groundwater used from the high level aquifer for that week. Meter readings shall be physically verified of public works and waste management;

R. Include any conditions or restrictions appropriate and reasonably related to the circumstances surrounding the use of high level aquifer potable groundwater and the remedial work to be done, and also including the authority to impose a cap on the use of such water based on the historical monthly average of use of nonpotable water, in an amount not to exceed two hundred fifty thousand gallons per day.

S. A copy of the permit shall be transmitted to all persons notified pursuant to subsection D1 of this section, the same day it is issued.

T. Reseeding or Regrassing. Notwithstanding Ordinance 2066, at such time as the fairways at the golf course are to be reseeded or regrassed so as to provide the golf course with more water efficient or better quality grass, the golf course owner may make a request of the county council for the use of potable groundwater from the high level aquifer in an amount up to twenty-seven thousand gallons per day per fairway to supplement irrigation water from alternative nonpotable water sources. Such approval shall be by resolution of the council. Such additional water may be used for a period not to exceed twenty-eight days per fairway. Only one fairway shall be irrigated with the additional water at any given time. No more than four fairways shall be reseeded or regrassed during any calendar year. Fairways shall only be reseeded or regrassed between the months of May through October, inclusive. Each fairway shall only be reseeded one time only under the provisions of this section. No continuous physical connection will be made between the potable and nonpotable water systems. In determining whether or not to approve the golf course owner's request, the council shall ensure that an adequate supply of water shall be available

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~~for golf course irrigation in accordance with the priority of uses as follows: (1) residential/domestic consumption (excluding irrigation uses); (2) commercial, business and resort consumption where potable water is necessarily used; (3) agricultural consumption; and (4) irrigation (including residential and large scale uses such as the golf course). If, during the reseeding or regrassing of a fairway, an unanticipated event occurs for which a permit is issued pursuant to subsection D of this section, above, the golf course owner may continue to use potable water for reseeding or regrassing, but only to the extent that such cumulative total of potable water permitted to be used pursuant to subsection D of this section and this subsection does not exceed two hundred fifty thousand gallons per day.~~

(Ord. 2516 § 1, 1996; Ord. 2515 § 1, 1996; Ord. 2139 § 5, 1992)

19.71.060 Open space PD-L/2.

A. Permitted Uses. Within open space districts, the following uses shall be permitted:

1. Principal uses:

a. Forest reserves,

~~b. Game reserves,~~

~~c.~~b. Miniature golf courses,

~~d.~~c. Open agricultural uses not requiring intensive cultivation, including orchards, vineyards, nurseries, and the raising and grazing of livestock, provided the raising of ~~other than~~ swine and fighting fowl shall not be permitted,

~~e.~~d. Parks, botanical, sculpture, and zoological gardens,

~~f.~~e. Public and quasi-public utility installations and substations,

~~g.~~f. Watersheds, wells, water reservoirs, and water control structures and drainage structures;

2. Accessory uses and structures that are determined by the Director of Planning to be incidental and customary to the permitted uses listed herein.

B. Special Uses. The following are declared special uses in open space districts, and approval of the ~~Maui~~ Lanai planning commission shall be obtained:

1. Public utilities, including temporary sewage treatment plants;
2. Recreational facilities of an outdoor nature, including cultural and historical facilities, with a minimum of five acres;
3. Riding stables and equestrian trails with a minimum of ten acres.

C. Development standards for open space districts shall be:

1. Minimum lot area, five acres;
2. Minimum lot width, two hundred fifty feet;
3. Minimum building setback:

a. Front yard, fifty feet,

b. Side yard, fifty feet,

c. Rear yard, fifty feet;

4. Maximum height, no portion of any building or structure shall exceed thirty feet in height;

5. Maximum lot coverage, ten percent.

(Ord. 2139 § 6, 1992: Ord. 1580 § 1 (part), 1986)

19.71.070 ~~Public~~ Resort Commercial PD-L/2.

A. Permitted Uses. Within ~~public~~ resort commercial districts, the following uses shall be permitted:

1. Principal uses:

a. ~~Utility installations and substations~~Amusement and recreational activities;

b. Catering establishments;

c. Eating and drinking establishments;

d. Fitness centers;

e. Historic buildings, structures and sites, and sites or areas of scenic interest;

f. Information centers;

g. Museums;

h. News and magazine stands;

i. Outdoor recreation and outdoor recreational facilities;

j. Parking lots;

k. Riding stables and riding academies, trails, rodeo corrals and arenas, and equestrian activities and facilities;

l. Sculptures;

m. Taxicab, car rental, and U-drive stations and offices;

n. Tennis and other playing courts;

~~d.~~o. Other uses of similar character providing foods, services, or facilities primarily to guests and transient visitors; provided the Director of Planning may approve such uses as conforming to the intent of this article, subject to such terms and conditions as may be warranted and required by the Director of Planning.

2. Accessory uses and structures.

a. Energy systems, small-scale, provided there will be no detrimental or nuisance effect upon neighbors;

b. Other uses that are determined by the Director of Planning to be clearly incidental and customary to a permitted use;

~~2.~~3. Special uses: Any other business, service, or commercial establishments that is of similar character in rendering sales or performing services to guests, visitors, and residents of the area; provided approval of the Director of Planning is obtained and the use conforms to the intent of this district.

B. Development standards for ~~public~~ resort commercial districts shall be:

1. Minimum lot area, ~~one acre~~six thousand square feet;
2. Minimum lot width, ~~one hundred ten~~sixty feet;

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3. ~~Minimum yard setback~~Maximum building height, thirty-five feet, except that vent pipes, fans, chimneys, antennae, and equipment used for small-scale energy systems on roofs shall not exceed forty-five feet;

~~3.~~4. Minimum building setback:~~:~~

a. Front yard, ~~twenty~~ fifteen feet,

b. Side and rear yard, zero to ten ~~twenty~~ feet. The ten foot setback applies if property abuts a district zoned R-1, R-2, R-3, or R-0 residential, A-1 or A-2 apartment, two family (duplex) or H-1, H-2, H-M hotel, or any area zoned residential, apartment, or hotel in any project district.

~~7~~

~~b. Rear yard, twenty feet;~~

5. Maximum height and minimum setback for freestanding antennae or wind turbine structures, including the length of the rotary blade; maximum height of fifty feet and minimum setback of one foot for each foot in height from all property lines;

~~4.~~6. Mail boxes, trash enclosures, boundary walls and fences, and all ground signs are permitted as accessory structures within the setback area.~~, two stories not to exceed thirty feet.~~

~~C. Landscaping Requirements. In public districts a four-foot-wide strip shall surround the perimeter of the structures or buildings.~~

~~(Ord. 1580 § 1 (part), 1986)~~

19.71.080 Land use categories and acreages.

A. The following are established as maximum acreages for various land use categories within the Koele project district:

Residential	~~214.0~~48.8 acres
Multifamily	~~26.0~~18.7 acres
Hotel	~~21.1~~45.4 acres
Open space	~~12.0~~80.8 acres
~~Public~~	~~1.0 acres~~
Park	~~11.5~~234.9 acres
Golf course	~~332.4~~78.0 acres
Resort commercial	75.4 acres

(Ord. 2139 § 7, 1992: Ord. 1580 § 1 (part), 1986)

19.71.090 General standards of development.

Any tract of land for which development is sought in the project district for Koele shall be subject to the following standards:

A. Steep Slopes.

1. "Steep slopes" are defined as lands where the inclination of the surface from the horizontal is twelve percent or greater prior to any grading.

2. A tract master plan shall be provided showing the building envelope, required setbacks, and preliminary drainage plan for each lot within the given tract and shall be reviewed and approved by the planning department during phase III project district review. The planning department may impose mitigative measures to ensure minimum subsidence and erosion on slopes exceeding thirty percent and on portions of the tract which are immediately adjacent to ravines. The tract master plan may include all or any part of the given tract, however phase III approval shall only apply to that part. Prior to the issuance of a building permit for a dwelling on a lot, the grading and erosion control plan for that lot shall be submitted to and approved by the department of public works and waste management, which shall review the final grading plan in accordance with the following criteria:

a. Individual lot drainage shall conform with the approved phase III preliminary drainage plan;

b. Erosion control measures to prevent erosion and sedimentation into the adjoining natural drainageway during construction of the home and exterior improvements shall be specified:

c. A plan shall be submitted for revegetation of all disturbed and exposed slopes. This plan shall show how exposed surfaces will be planted and covered after construction to prevent erosion and sedimentation into the adjoining drainageway; and

d. The planning department may require additional information if deemed necessary to support any request for phase III approval.

B. Ravines and Ravine Buffers.

1. At least ninety-five percent of all ravines shall remain in permanent open space. At least eighty percent of all ravine buffers shall remain in permanent open space.

2. "Ravines" are defined as valleys with sharply sloping walls created by action of intermittent stream waters. Ravine buffer areas are to be shown on the tract master plan and shall be at least equal to ten percent of the mean depth of the lot measured from the top of the ravine wall.

C. Wetlands. Areas such as swamps, marshes, bogs or other similar lands shall remain as permanent undisturbed open space.

D. Woodlands.

1. No more than sixty percent of existing woodland area shall be cleared. The remaining forty percent shall be maintained as permanent open space which may be enhanced by landscape planting as approved by the planning department.

2. "Woodlands" are defined as areas, including one or more lots, covering one contiguous acre or more, and consisting of thirty-five percent or more canopy tree coverage, where (a) trees have a caliper of at least sixteen inches; or (b) any grove of ten trees or more have calipers of at least ten inches. For the purposes of this section, a "grove" is defined as a stand of trees lacking natural underbrush or undergrowth.

E. Other Resources. Areas of important natural, historical, archaeological, or cultural resources or unique physical features, not otherwise mentioned in this section, shall be identified, and provisions shall be outlined to preserve or improve said resource or feature.

F. Design.

1. At least twenty percent of the lot area of each development shall be in protected open space. This includes areas defined in this section but does not include roadways, streets, and parking lots.

2. Each building and structure shall be designed by a ~~Hawaii registered~~ licensed architect to conform with the intent of the project district.

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G. Recreational, Community, and Open Space Facilities.

1. Recreational and community facilities shall be provided.

2. Provision shall be made for continuing management of all recreational, community, and open space facilities to insure proper maintenance and policing. Documents to said effect shall be required.

H. Infrastructure. The development shall not burden governmental agencies to provide substantial infrastructural improvements.

I. Landscape Planting.

1. Comprehensive landscaping of the entire development shall be provided, including along streets, within lots, and in open spaces.

2. Landscape planting is to be considered as an integral element to be utilized for visual screening, shade, definition, and environmental control. Furthermore, the use of recycled water is to be considered for irrigation purposes.

J. Signage. A comprehensive signage program shall be designed for the total development area and defined to at least include sizes, format, conceptual design, color schemes, and landscaping.

K. Lighting. Lighting shall be established in a manner so as to not adversely impact the surrounding areas.

(Ord. 2407 § 1, 1995: Ord. 2139 § 8, 1992: Ord. 1580 § 1 (part), 1986)

~~**19.71.100 Required agreements.**~~

~~In accordance with section 19.45.050, the applicant shall enter into the following bilateral agreements:~~

~~A. A bilateral agreement requiring the applicant to develop and coordinate a training program for all phases of hotel operations; provided, that development other than hotel development within the project district may proceed before the agreement has been executed; and~~

~~B. A bilateral agreement requiring the applicant to develop and coordinate an affordable housing program for residents of Lanai; provided, that development other than hotel development within the project district may proceed before the agreement has been executed.~~

~~(Ord. 1580 § 1 (part) 1986)~~

Chapter 19.71 LANAI PROJECT DISTRICT 2 (KOELE)

19.71.010 Purpose and intent.

A. The purpose and intent of project district 2 at Koele, Lanai, is to provide for a flexible and creative approach to development which considers physical, environmental, social, and economic factors in a comprehensive manner.

B. The purpose and intent of project district 2 at Koele is to establish a low-density residential and recreational development with hotel facilities in an upland rural setting.

C. This project district is to be complementary and supportive of services offered in Lanai city and will provide housing and recreational opportunities to island residents. Uses include, but are not limited to, single-family residential, multifamily residential, hotel, open space, park, resort commercial, and golf course.

(Ord. 2139 § 2, 1992: Ord. 1580 § 1 (part), 1986)

19.71.020 Residential PD-L/2.

A. Permitted Uses. Within the residential districts, the following uses shall be permitted:

1. Principal uses:

a. Single-family detached dwellings;

~~b. Short term rental homes, subject to the provisions of chapter 19.65 of this title;~~

~~c.~~b. Greenhouses, flower and truck gardens, and nurseries; provided there shall be no retailing or transacting of business on the premises;

~~d.~~c. Parks and playgrounds.

2. Accessory uses and structures;

a. Day care nurseries, kindergartens, nursery schools, child care homes, day care homes, day care centers, nurseries, preschool kindergartens, babysitting services, learning pods, home schools, and other like facilities located in private homes used for child care and learning services. These facilities shall serve six or fewer children at any one time on lot sizes of less than seven thousand five hundred square feet, eight or fewer children at any one time on lot sizes of seven thousand five hundred or more square feet but less than ten thousand square feet, or twelve or fewer children at any one time on lot sizes of ten thousand or more square feet;

b. Trash enclosures;

c. Garages,

d. Subordinate uses and structures that are determined by the Director of Planning to be clearly incidental and customary to the permitted uses listed herein.

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3. Special accessory uses:
    a. Accessory dwelling for a lot with .5 acre or more, subject to the provisions of chapter 19.35 of this title.

B. Development standards for residential districts shall be:
    1. Minimum lot area, six thousand square feet;
    2. Minimum lot width, sixty feet;
    3. Minimum building setback:
        a. Front yard, fifteen feet,
        b. Side yard, six feet, ten feet for the second story of a structure,
        c. Rear yard, six feet, ten feet for the second story of a structure;
    4. Maximum overall net density, two and one-half units per acre;
    5. Maximum height, two stories not to exceed thirty feet.

(Ord. 1580 § 1 (part), 1986)

19.71.030 Multifamily PD-L/2.

A. Permitted Uses. Within multifamily districts, the following uses shall be permitted:
    1. Principal uses:
        a. Single-family detached buildings,
        b. Apartment houses,
        c. Duplexes;
    2. Accessory uses and structures.
        a. Day care nurseries, kindergartens, nursery schools, child care homes, day care homes, day care centers, nurseries, preschool kindergartens, babysitting services, learning pods, home schools, and other like facilities located in private homes used for child care and learning services. These facilities shall serve six or fewer children at any one time on lot sizes of less than seven thousand five hundred square feet, eight or fewer children at any one time on lot sizes of seven thousand five hundred or more square feet but less than ten thousand square feet, or twelve or fewer children at any one time on lot sizes of ten thousand or more square feet;
        b. Trash enclosures;
        c. Garages;
        d. Subordinate uses and structures that are determined by the Director of Planning to be clearly incidental and customary to the permitted uses listed herein.

B. Development standards for multifamily districts shall be:
    1. Minimum lot area, one acre;
    2. Minimum lot width, one hundred ten feet;

    3. Minimum building setback:
        a. Front yard, fifteen feet,
        b. Side yard, ten feet, fifteen feet for two stories,
        c. Rear yard, ten feet, fifteen feet for two stories;
    4. Maximum overall net density, six units per acre;
    5. Maximum floor area ratio, 0.5;
    6. Maximum height, two stories not to exceed thirty feet.

(Ord. 2139 § 3, 1992; Ord. 1580 § 1 (part), 1986)

19.71.040 Hotel PD-L/2.

A. Permitted Uses. Within hotel districts, the following uses shall be permitted:
    1. Principal uses:
        a. Hotel;
        b. Automobile parking lots and buildings.
    2. Accessory uses and structures;
        a. Trash enclosures;
        b. Ground signs;
        c. Boundary walls and fences;
        d. Subordinate uses and structures, which are determined by the Director of Planning to be incidental and customary to the permitted uses listed herein.
    3. Special accessory uses:
        a. The following uses shall be operated as an adjunct to, and as part of, a hotel with said hotel having at least twenty-five rooms. Furthermore, these uses shall be operated primarily as a service to, and for the convenience of, the tenants and occupants of the hotel on which premises such services are located.
            i. Activities/information center,
            ii. Bars, nightclubs,
            iii. Fitness centers,
            iv. Flower shops,
            v. Eating and drinking establishments,
            vi. Outdoor recreation,
            vii. Recreational facilities including tennis and other playing courts, horse riding stables, and equestrian trails,
            viii. Spa facilities and support services,
            ix. Sundry shops,
            x. Swimming pools,

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xi. Theater/auditoriums,

xii. Ticket agencies;

xiii. Other accessory business or service establishments that furnish goods or perform services primarily for hotel guests.

b. The shops and businesses may be constructed as separate buildings. However, entrances to shops and businesses shall not front on a street.

B. Special Uses. Other uses may be approved by the Lanai Planning Commission subject to the provisions of section 19.510.070 of this title.

C. Development standards for hotel districts shall be:

1. Minimum lot area, one acre;

2. Minimum lot width, one hundred ten feet;

3. Minimum building setback:

a. Front yard, twenty feet,

b. Side yard, ten feet,

c. Rear yard, fifteen feet;

4. Maximum floor area ratio, 0.8;

5. Maximum lot coverage, forty percent;

6. Maximum height, two stories not to exceed thirty feet, except that the Director of Planning may approve a greater height limitation for a structure where the Director of Planning determines that the increased height will enhance the appeal and architectural integrity of the structure, provided that the additional area created by the excess height shall not be used for habitation nor storage;

7. Maximum overall net density, twelve units per acre.

(Ord. 2139 § 4, 1992: Ord. 1580 § 1 (part), 1986)

19.71.050 Park PD-L/2.

A. Permitted Uses. Within park districts, the following uses shall be permitted:

1. Principal uses:

a. Parks and playgrounds;

b. Cultural and performing arts facilities;

c. Fitness courses;

d. Historical buildings, structures and sites, and sites or areas of scenic interest;

e. Maintenance areas and structures;

f. Outdoor recreation and recreational activities;

g. Picnicking;

h. Playing courts and playfields;

i. Public utilities;

j. Recreational and educational centers and facilities;

k. Sculpture gardens;

l. Trail activities;

m. Zip line recreational activities;

n. Other similar commercial or noncommercial enterprises or activities that are not detrimental to the welfare of the surrounding area; provided such uses shall be approved by the Director of Planning as conforming to the intent of this chapter.

2. Accessory uses and structures.

a. Energy systems, small-scale; provided such use shall not cause a detrimental or nuisance effect on neighboring properties;

b. Light fixtures and light poles; provided lighting or lamp posts and lighting controls shall be full cut-off luminaries to lessen possible sea bird strikes;

c. Park furniture, including but not limited to benches, picnic tables, and fountains;

d. Botanical gardens;

e. Bazaars, fairs, food, wine, film, or other festivals that are special events and temporary in nature. "Temporary" for the purposes of this section shall mean that each festival or event may be held for no more than thirty days in a calendar year;

f. Restaurants and gift shops;

g. Pavilions;

h. Comfort and shelter stations;

i. Clubhouses for principal recreational uses, including restrooms, check-in counters or kiosks, and other ancillary facilities;

j. Parking lot, loading and unloading area;

k. Maintenance facilities;

l. Subordinate uses and structures that are determined by the Director of Planning to be incidental and customary to the permitted uses listed herein.

B. Development standards for park districts shall be:

1. Minimum lot area, two acres;

2. Minimum lot width, one hundred fifty feet;

3. Minimum structure setback:

a. Front yard, fifteen feet,

b. Side yard, fifteen feet,

c. Rear yard, fifteen feet;

C. Non-potable water shall be used for irrigation to the extent available. Notwithstanding anything to the contrary under chapter 20.30 of this title, high level aquifer groundwater may be used for irrigation in areas where sufficient non-potable water is not available. Areas within Park districts that have continually and lawfully used high level aquifer groundwater for maintenance and irrigation shall be permitted to continue such use, subject to the provisions of section 19.500.110 of this title.

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(Ord. 1580 § 1 (part), 1986)

19.71.055 Golf course PD-L/2.

A. Permitted Uses. Within the golf course district, the following uses shall be permitted:

1. Principal uses:

   a. Golf courses except for miniature golf courses,

   b. Historical buildings, structures, or sites;

2. Accessory Uses and Structures. Accessory uses and structures which include, but which are not limited to, the following:

   a. One caretaker's dwelling unit,

   b. Cart barns and other equipment, storage, and maintenance facilities,

   c. One clubhouse with one snack bar, one restaurant, and a pro shop for the sale and service of golf equipment and materials used for golfing purposes,

   d. Comfort and shelter stations,

   e. Golf and driving range including instructional and practice facilities,

   f. Greenhouses to maintain landscaping on the zoning lot,

   g. Indoor and outdoor playing courts, swimming pools, and meeting rooms, provided that no major meeting places such as convention halls and athletic complexes such as tennis centers or other permanent spectator accommodations shall be permitted,

   h. Off-street parking and loading,

   i. Park furniture,

   j. Public utility,

   k. Weight, massage, sauna, and locker rooms,

   l. Bazaars, fairs, food, wind, film or other festivals that are special events and temporary in nature. "Temporary" for purposes of this section shall mean that each festival or event may be held for no more than thirty days in a calendar year,

   m. Subordinate uses and structures that are determined by the Director of Planning to be incidental and customary to the permitted uses listed herein.

B. Development standards for the golf course district shall be:

1. Minimum lot area, fifty acres for par three or nine hole;

2. Minimum building setback, all yards, fifty feet;

3. Maximum height, thirty-five feet; provided that ten feet of additional height may be permitted if a cart barn is located in the basement level of the structure, and provided further that minor utility facilities, vent pipes, fans, chimneys, and energy-savings devices shall be permitted additional height if the item is mounted on the roof of a facility; except that in no event shall this additional height exceed five feet above the governing height limit.

C. Irrigation. Notwithstanding anything to the contrary under chapter 20.30 or 14.08 of this title, golf courses in existence and operation prior to 1991 that have continually and lawfully utilized high level

aquifer groundwater for maintenance and irrigation shall be permitted to continue such use, subject to the provisions of section 19.500.110 of this title.

(Ord. 2516 § 1, 1996; Ord. 2515 § 1, 1996; Ord. 2139 § 5, 1992)

19.71.060 Open space PD-L/2.

A. Permitted Uses. Within open space districts, the following uses shall be permitted:

1. Principal uses:

   a. Forest reserves,

   b. Miniature golf courses,

   c. Open agricultural uses not requiring intensive cultivation, including orchards, vineyards, nurseries, and the raising and grazing of livestock, provided the raising of swine and fighting fowl shall not be permitted,

   d. Parks, botanical, sculpture, and zoological gardens,

   e. Public and quasi-public utility installations and substations,

   f. Watersheds, wells, water reservoirs, and water control structures and drainage structures;

2. Accessory uses and structures that are determined by the Director of Planning to be incidental and customary to the permitted uses listed herein.

B. Special Uses. The following are declared special uses in open space districts, and approval of the Lanai planning commission shall be obtained:

1. Public utilities, including temporary sewage treatment plants;

2. Recreational facilities of an outdoor nature, including cultural and historical facilities, with a minimum of five acres;

3. Riding stables and equestrian trails with a minimum of ten acres.

C. Development standards for open space districts shall be:

1. Minimum lot area, five acres;

2. Minimum lot width, two hundred fifty feet;

3. Minimum building setback:

   a. Front yard, fifty feet,

   b. Side yard, fifty feet,

   c. Rear yard, fifty feet;

4. Maximum height, no portion of any building or structure shall exceed thirty feet in height;

5. Maximum lot coverage, ten percent.

(Ord. 2139 § 6, 1992: Ord. 1580 § 1 (part), 1986)

19.71.070 Resort Commercial PD-L/2.

A. Permitted Uses. Within resort commercial districts, the following uses shall be permitted:

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1. Principal uses:
    a. Amusement and recreational activities;
    b. Catering establishments;
    c. Eating and drinking establishments;
    d. Fitness centers;
    e. Historic buildings, structures and sites, and sites or areas of scenic interest;
    f. Information centers;
    g. Museums;
    h. News and magazine stands;
    i. Outdoor recreation and outdoor recreational facilities;
    j. Parking lots;
    k. Riding stables and riding academies, trails, rodeo corrals and arenas, and equestrian activities and facilities;
    l. Sculptures;
    m. Taxicab, car rental, and U-drive stations and offices;
    n. Tennis and other playing courts;
    o. Other uses of similar character providing foods, services, or facilities primarily to guests and transient visitors; provided the Director of Planning may approve such uses as conforming to the intent of this article, subject to such terms and conditions as may be warranted and required by the Director of Planning.
2. Accessory uses and structures.
    a. Energy systems, small-scale, provided there will be no detrimental or nuisance effect upon neighbors;
    b. Other uses that are determined by the Director of Planning to be clearly incidental and customary to a permitted use;
3. Special uses: Any other business, service, or commercial establishments that is of similar character in rendering sales or performing services to guests, visitors, and residents of the area; provided approval of the Director of Planning is obtained and the use conforms to the intent of this district.

B. Development standards for resort commercial districts shall be:
1. Minimum lot area, six thousand square feet;
2. Minimum lot width, sixty feet;
3. Maximum building height, thirty-five feet, except that vent pipes, fans, chimneys, antennae, and equipment used for small-scale energy systems on roofs shall not exceed forty-five feet;
4. Minimum building setback:
    a. Front yard, fifteen feet,
    b. Side and rear yard, zero to ten feet. The ten foot setback applies if property abuts a district zoned R-1, R-2, R-3, or R-0 residential, A-1 or A-2 apartment, two family (duplex) or H-1, H-2, H-M hotel, or any area zoned residential, apartment, or hotel in any project district.

5. Maximum height and minimum setback for freestanding antennae or wind turbine structures, including the length of the rotary blade; maximum height of fifty feet and minimum setback of one foot for each foot in height from all property lines;
6. Mail boxes, trash enclosures, boundary walls and fences, and all ground signs are permitted as accessory structures within the setback area.

(Ord. 1580 § 1 (part), 1986)

19.71.080 Land use categories and acreages.

A. The following are established as maximum acreages for various land use categories within the Koele project district:

Residential	48.8 acres
Multifamily	18.7 acres
Hotel	45.4 acres
Open space	80.8 acres
Park	234.9 acres
Golf course	78.0 acres
Resort commercial	75.4 acres

(Ord. 2139 § 7, 1992: Ord. 1580 § 1 (part), 1986)

19.71.090 General standards of development.

Any tract of land for which development is sought in the project district for Koele shall be subject to the following standards:

A. Steep Slopes.
1. "Steep slopes" are defined as lands where the inclination of the surface from the horizontal is twelve percent or greater prior to any grading.
2. A tract master plan shall be provided showing the building envelope, required setbacks, and preliminary drainage plan for each lot within the given tract and shall be reviewed and approved by the planning department during phase III project district review. The planning department may impose mitigative measures to ensure minimum subsidence and erosion on slopes exceeding thirty percent and on portions of the tract which are immediately adjacent to ravines. The tract master plan may include all or any part of the given tract, however phase III approval shall only apply to that part. Prior to the issuance of a building permit for a dwelling on a lot, the grading and erosion control plan for that lot shall be submitted to and approved by the department of public works and waste management, which shall review the final grading plan in accordance with the following criteria:
    a. Individual lot drainage shall conform with the approved phase III preliminary drainage plan;
    b. Erosion control measures to prevent erosion and sedimentation into the adjoining natural drainageway during construction of the home and exterior improvements shall be specified:
    c. A plan shall be submitted for revegetation of all disturbed and exposed slopes. This plan shall show how exposed surfaces will be planted and covered after construction to prevent erosion and sedimentation into the adjoining drainageway; and

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d. The planning department may require additional information if deemed necessary to support any request for phase III approval.

B. Ravines and Ravine Buffers.

1. At least ninety-five percent of all ravines shall remain in permanent open space. At least eighty percent of all ravine buffers shall remain in permanent open space.

2. "Ravines" are defined as valleys with sharply sloping walls created by action of intermittent stream waters. Ravine buffer areas are to be shown on the tract master plan and shall be at least equal to ten percent of the mean depth of the lot measured from the top of the ravine wall.

C. Wetlands. Areas such as swamps, marshes, bogs or other similar lands shall remain as permanent undisturbed open space.

D. Woodlands.

1. No more than sixty percent of existing woodland area shall be cleared. The remaining forty percent shall be maintained as permanent open space which may be enhanced by landscape planting as approved by the planning department.

2. "Woodlands" are defined as areas, including one or more lots, covering one contiguous acre or more, and consisting of thirty-five percent or more canopy tree coverage, where (a) trees have a caliper of at least sixteen inches; or (b) any grove of ten trees or more have calipers of at least ten inches. For the purposes of this section, a "grove" is defined as a stand of trees lacking natural underbrush or undergrowth.

E. Other Resources. Areas of important natural, historical, archaeological, or cultural resources or unique physical features, not otherwise mentioned in this section, shall be identified, and provisions shall be outlined to preserve or improve said resource or feature.

F. Design.

1. At least twenty percent of the lot area of each development shall be in protected open space. This includes areas defined in this section but does not include roadways, streets, and parking lots.

2. Each building and structure shall be designed by a licensed architect to conform with the intent of the project district.

G. Recreational, Community, and Open Space Facilities.

1. Recreational and community facilities shall be provided.

2. Provision shall be made for continuing management of all recreational, community, and open space facilities to insure proper maintenance and policing. Documents to said effect shall be required.

H. Infrastructure. The development shall not burden governmental agencies to provide substantial infrastructural improvements.

I. Landscape Planting.

1. Comprehensive landscaping of the entire development shall be provided, including along streets, within lots, and in open spaces.

2. Landscape planting is to be considered as an integral element to be utilized for visual screening, shade, definition, and environmental control. Furthermore, the use of recycled water is to be considered for irrigation purposes.

J. Signage. A comprehensive signage program shall be designed for the total development area and defined to at least include sizes, format, conceptual design, color schemes, and landscaping.

K. Lighting. Lighting shall be established in a manner so as to not adversely impact the surrounding areas.

(Ord. 2407 § 1, 1995: Ord. 2139 § 8, 1992: Ord. 1580 § 1 (part), 1986)

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AGRICULTURAL IMPACT REPORT

APPENDIX B

REF-21

November 17, 2021

On September 29, 2021, the County of Maui Department of Planning submitted the following comment on behalf of the Lānaʻi Planning Commission with respect to our technical study, *Proposed Kōʻele Project District Revisions: Impacts on Agriculture*.

> Comment 28:
>
> *(Appendix B, Page 13) The Agricultural Impact Report states on page 13: "Tax revenues derived from County property taxes and State taxes (excise, personal income, cooperate income, and transient accommodations tax)." The word should likely be "corporate." Please revise. Further what is the source of anticipated transient accommodation tax revenue? Is this the Hotel only? Are there other sources?*

We acknowledge the error of "cooperate," it should be "corporate." This letter serves to correct the record.

Signed

Bruce Plasch
Bruce Plasch (Nov 18, 2021 14:06 HST)

Bruce Plasch, Ph.D.
President
Plasch Econ Pacific, LLC

Tessa Ng
Tessa Ng (Nov 18, 2021 16:57 HST)

Tessa Munekiyo Ng
Vice President
Munekiyo and Hiraga

April 6, 2021

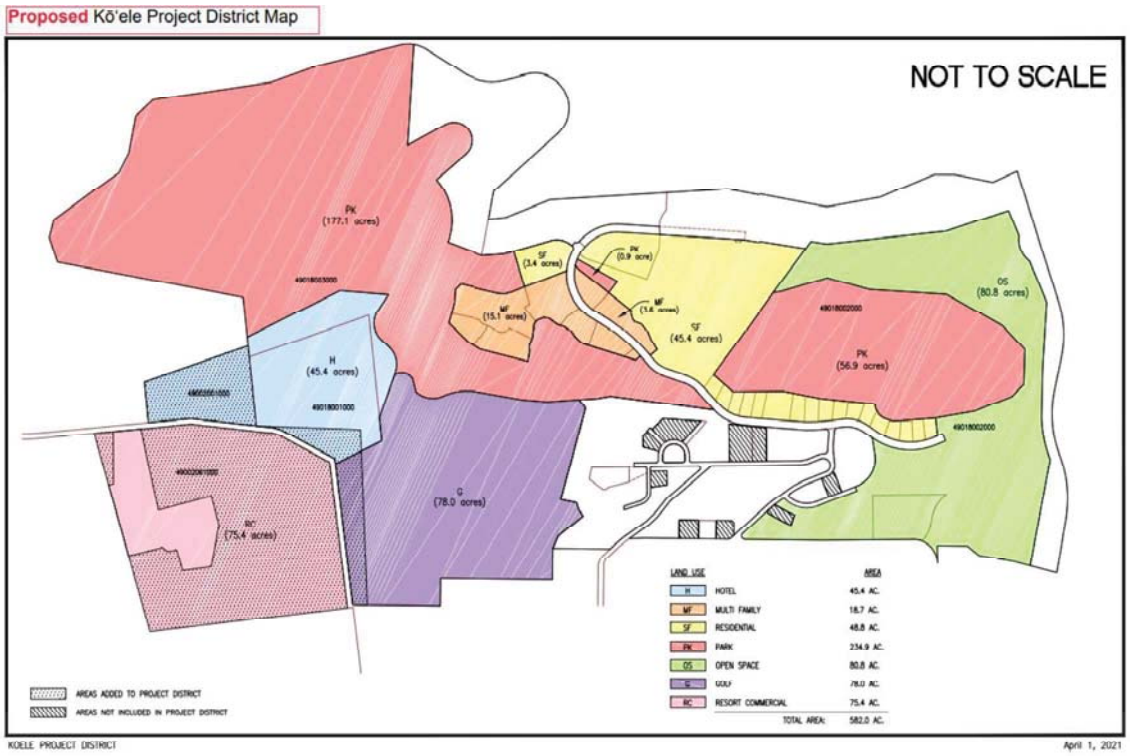
We were originally contracted to complete an Impacts on Agriculture study for the draft Environmental Assessment for the Kōʻele Project District Amendment.

Since the completion of our study, Pūlama Lānaʻi has adjusted the uses and associated acres within the project district. This is reflected in the map below.

Additionally, an inconsistency between MCC Chapter 19.71.080 and Ordinance 1581, 2140, and 2852 was identified by Pūlama Lānaʻi while finalizing their application. A non-contiguous 14.5 acre parcel (TMK: [2] 4-9-002:061 (portion)) is zoned "Project District" in Ordinance 2852, however, no subdistrict designation is assigned to the 14.5 acres in Ordinance 2852. Furthermore, there is no record of the 14.5 acres in Ordinance 1581, Ordinance 2140, and MCC Chapter 19.71.080, where the subdistricts are identified by the number of acres.

Pūlama Lānaʻi has incorporated this 14.5 acre section (identified as "Stables & Tennis Courts" in CIZ Map 2615) into the Proposed Kōʻele Project District Map, it was not identified in earlier maps provided to our firm.

We attest that the results of our technical study, *Proposed Koele Project District Revisions: Impacts on Agriculture* do not change based on the updated map.



Signed

Bruce S. Plasch
Bruce S. Plasch (Apr 7, 2021 10:41 HST)

Bruce Plasch, Ph.D.
President
Plasch Econ Pacific, LLC

Tessa Ng
Tessa Ng (Apr 7, 2021 17:27 HST)

Tessa Munekiyo Ng
Vice President
Munekiyo and Hiraga

REF-23

Proposed Koele Project District Revisions: Impacts on Agriculture

Proposed Koele Project District Revisions: Impacts on Agriculture

PREPARED FOR:

Pūlama Lānaʻi

PREPARED BY:

Plasch Econ Pacific, LLC and
Munekiyo Hiraga

September 2019

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APPENDIX

State and County Goals, Objectives, Policies, and Guidelines Related to Agricultural Lands

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EXECUTIVE SUMMARY

1. PROPOSED DEVELOPMENT

Pūlama Lānaʻi proposes revisions to the existing Koele Project District (PD) (the Project) in the Koele area on the island of Lānaʻi, Hawaiʻi. The existing Koele PD consists of approximately 618 acres. Portions of the existing project district will be removed while new lands will be added. Lands which will be added to the Koele PD includes approximately 67 acres of agricultural-designated lands that are proposed to be incorporated into the Koele PD as 57 acres of "Resort Commercial" district and 10 acres of "Hotel" district. The amended Koele PD will consist of approximately 564 acres. The land use allocations within the Project Area are also proposed to be modified.

Although the proposed Koele PD will be 564 acres in its entirety, this report addresses approximately 150 acres (Project Area). About 83 acres of the Project Area are currently within the PD but are designated "Agricultural" by the State Land Use Commission. The current designation of this land will remain, but its use will change from a golf course to a park.

About 67 acres of the Project area are zoned "Agricultural" by Maui County and will be added to the PD as Hotel District (about 10 acres) and Resort Commercial (about 57 acres). State Districting for this land is "Rural". About 2 acres of the Resort Commercial land will be developed, and about 55 acres will continue to be used for stables, plus occasional commercial events under tents.

The remainder of the Koele PD—which is not designated as "Agricultural" by the State Land Use Commission or Maui County—is not analyzed as it is non-agricultural lands and is not relevant to the analysis of agricultural impacts.

2. AGRICULTURAL CONDITIONS

The Project Area has some favorable agronomic conditions: soils are good; solar radiation is moderate; and the trucking distances to Lānaʻi City and Mānele Resort are short.

However, the Project Area is unsuitable for field farming to supply crops to Lānaʻi markets, or for export to Oʻahu or the mainland. The major problems are the lack of irrigation water, the Lānaʻi market is very small, and Lānaʻi farmers are at a competitive disadvantage in supplying the Oʻahu and mainland markets because of shipping costs

3. PAST AGRICULTURAL USES

A portion of the Project Area and surrounding fields were used for a pineapple plantation from the 1920s to 1992. Since then, the majority of the Project Area and the surrounding fields have been fallow.

4. EXISTING AND FUTURE COMMERCIAL FARMING ON LĀNAʻI

Only one commercial farmer operates on Lānaʻi, selling fresh produce to local stores and the hotels. In addition, some part-time farmers grow crops for personal consumption, and some sell to grocery stores.

The Stables at Koele (Stables) is an equestrian operation located on Kanepuʻu Highway north of Lānaʻi City. The Stables utilize 215 acres of land, with facilities including a 3,800-square foot (sq. ft.) barn, six (6) run-in shelters (288 sq. ft. each), and three (3) 40-foot storage containers. An approximately 55 acre portion of the lands utilized by the Stables will be located within the proposed Koele PD. The Stables keep 48 horses and offer various ranch experiences to guests, including group horseback rides, private horseback rides, horse lessons, pony rides, miniature horse cart rides, and shire carriage rides. In addition to the equestrian experiences, the Stables has a petting zoo with various goats, donkeys, and miniature horses. The Stables plans to add 10 corrientes (steers) and possibly bring in some alpacas, chickens, and additional goats to the property.

There is a plan for a 100-acre agricultural park on the island of Lānaʻi. In 1992, the Land Use Commission required Castle & Cooke's Lānaʻi Resort to set aside 100 acres for the development and operation of an agricultural park by the State Department of Agriculture and County of Maui for the residents of Lānaʻi. This was a condition for approving the Manele Golf Course. However, there has not been any progress on developing the park due to a lack of interest.

Sensei Farms Lānaʻi is developing a hydroponic farm to supply fresh produce to local markets, and possibly to off-island markets. At full development, the farm will include ten (10) greenhouses that are powered by an off-grid photovoltaic system. One of the major advantages of hydroponic farming is that it requires relatively little water compared to field farming.

5. IMPACT ON AGRICULTURAL OPERATIONS WITHIN THE PROJECT AREA

A 55-acre portion of the 215-acre area utilized by the Stables at Koele are proposed to be incorporated into the Koele PD and will be designated for Resort Commercial use. This includes the existing barn and other related facilities. The Stables at Koele facilities will remain in its current location and will be incorporated into the Project District. The Resort

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Commercial designation will allow Pūlama Lanaʻi to utilize the land within the Stables at Koele for parties and events. These events will use a portion of the Stable lands about eight times per year, and will be open air and/or under tents.

In addition, two (2) historic buildings will be relocated to the 55-acre portion of the Stables. These historic properties will to be converted to a museum and a retail shop. Also, a third building may be constructed, resulting in a total of about 30,000 square feet of commercial space (about 2 acres with parking and landscaping). The commercial operations are expected to be compatible uses with the Stables at Koele operation.

Beyond the Stables at Koele, there are no other existing or planned agricultural operations within the Project Area.

Inasmuch as the revised Koele PD will not require relocation of the Stables at Koele facilities, and only about 2 acres of 215 acres of the Stables will be lost, the Project will have no significant impact on existing agricultural operations.

6. IMPACT ON THE GROWTH OF AGRICULTURE

About 12 acres of the Project Area will be lost to agriculture, including about (1) 10 acres of land that will be rezoned by the County from Agriculture to Hotel, and (2) about 2 acres that will be developed on land planned for Resort Commercial but are now zoned Agriculture and used for the Stables. An additional 55 acres will be rezoned from Agriculture to Resort Commercial, but nearly all of these lands will continue to be used for the Stables along with occasional commercial events.

There are approximately 18,000 acres of former plantation lands on Lānaʻi which remain available for agricultural use, and over 200,000 acres statewide. The loss of about 12 acres of agriculture land on Lānaʻi, plus the loss of agricultural land due to other projects (i.e., the cumulative impact), is too small to affect the growth of diversified agriculture on Lānaʻi or Statewide.

7. OFFSETTING BENEFITS

The loss of 12 acres of agricultural land will be offset by the benefits of the Project to the community, including: (1) employment generated by construction activity and future hotel and commercial operations; (2) offsite economic activity generated by the purchases of goods and services by companies and the families of employees; and (3) tax revenues derived from County property taxes and State taxes (excise, personal income, corporate income, and transient accommodations tax).

8. CONSISTENCY WITH STATE AND CITY POLICIES

a. Availability of Lands for Agriculture

The Hawaiʻi State Constitution, the Hawaiʻi State Plan, the State Agriculture Functional Plan, the County of Maui 2030 General Plan, and the County's Lānaʻi Community Plan call directly or implicitly for preserving the economic viability of plantation agriculture and promoting the growth of diversified agriculture. To accomplish this, an adequate supply of agriculturally suitable lands and water must be assured.

With regard to plantation agriculture, the Project Area is no longer part of a pineapple plantation. The last pineapple harvest was in 1992.

With regard to diversified agriculture, the Project will not result in the loss of any existing agricultural operation since the Stables will remain, and the Project Area is not currently being cultivated and has not been cultivated since 1992.

Although the Project will reduce the availability of agricultural land by about 12 acres, the Project will not limit the growth of diversified agriculture statewide or on Lānaʻi since ample agricultural land is available due to the loss of nearly all plantations in Hawaiʻi.

b. Conservation of Agricultural Lands

In addition to the above, State and County policies call for conserving and protecting prime agricultural lands, including protecting farmland from urban development.

It should be noted that many of the State agricultural policies were written before the major contraction of plantation agriculture (from 1981 to 2016), and assume implicitly that profitable agricultural activities eventually will be available to utilize all available agricultural lands. This has proven to be a questionable assumption in view of the enormity of the contraction of plantation agriculture, the abundant supply of farmland that came available for diversified agriculture, and the slow growth in the amount of land being utilized for diversified agriculture.

Furthermore, discussions in the State Agriculture Functional Plan recognize that redesignation of lands from Agricultural to Urban and/or Rural should be allowed *"... upon a demonstrated change in economic or social conditions, and where the requested redesignation will provide greater benefits to the general public than its retention in ...agriculture;"* that is, when an *"overriding public interest exists."* The enormous contraction of plantation agriculture, which resulted in the supply of agricultural land far exceeding demand, constitutes a major change in economic conditions. Moreover, the Project will provide community benefits (jobs, tax revenues, etc.) that far exceed the benefits of leaving 12 acres in agriculture. In practice, the Project is expected to have no significant impact on agricultural activity since the Stables will remain, and ample land is available statewide to accommodate the anticipated growth of diversified agriculture.

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KOELE PROJECT DISTRICT REVISIONS:
IMPACTS ON AGRICULTURE

1. INTRODUCTION

Pūlama Lānaʻi proposes revisions to the existing Koele Project District (PD) (the Project) in the Koele area on the island of Lānaʻi, Hawaiʻi. The existing Koele PD consists of approximately 618 acres. Portions of the existing project district will be removed while new lands will be added. Lands which will be added to the Koele PD includes approximately 67 acres of agricultural-designated lands that are proposed to be incorporated into the Koele PD as 57 acres of "Resort Commercial" district and 10 acres of "Hotel" district. The amended Koele PD will consist of approximately 564 acres. Land use allocations within the Project Area are also proposed to be modified.

This report addresses the impacts of the Project on agriculture. Although the proposed Koele PD will be 564 acres in its entirety, this report addresses approximately 150 acres (Project Area). About 83 acres of the Project Area are currently within the PD but are designated "Agricultural" by the State Land Use Commission. The current designation of this land will remain, but its use will change from a golf course to a park.

About 67 acres of the Project area are zoned "Agricultural" by Maui County and will be added to the PD as Hotel District (about 10 acres) and Resort Commercial (about 57 acres). State Districting for this land is "Rural". About 2 acres of the Resort Commercial land will be developed, and about 55 acres will continue to be used for stables, plus occasional commercial events under tents.

The remainder of the Koele PD—which is not designated as "Agricultural" by the State Land Use Commission or Maui County—is not analyzed as it is non-agricultural lands and is not relevant to the analysis of agricultural impacts.

The material below gives information about the Project, the agricultural conditions of the Project Area, past agricultural uses of the land, the impact of the Project on existing agricultural operations in and near the Project Area, the impact of the Project on the growth of diversified-crop farming, benefits of the Project that would offset adverse agricultural impacts, and consistency of the Project with State and County agricultural policies. The Appendix provides a summary of State and County goals, objectives, policies, and guidelines related to agricultural lands.

2. PROJECT INFORMATION

a. Project Location and TMK

As shown in **Figure 1** (all Figures follow the body of the report), the Project Area is situated northeast of Lānaʻi City. The Project Area is bordered on north by former pineapple lands and mountains, on the east by mountains, on the south by mountains and former pineapple lands, and on the west by Lānaʻi City and former pineapple lands. The Tax Map Keys (TMK) for the Project Area are (2)4-9-018:001(por.), (2)4-9-018:002(por.), and (2)4-9-002:061 (por.). Among these parcels, a 10-acre portion of TMK (2)4-9-018:001, a 57.2-acre portion of TMK (2)4-9-002:061, and a 83-acre portion of TMK (2)4-9-018:003 comprise the 150-acre Project Area that will be addressed in this report.

b. Project Description

Pūlama Lānaʻi proposes revisions to the existing Koele PD. The proposed revisions include a removal of 129.7-acre lands, an addition of 75.7 acres of land located to the north of the existing Koele PD and changes of the land use allocations within the PD (see **Figure 2**, **Figure 3**, and **Table 1**).

Table 1. Existing and Proposed Acreages of Koele Project District

Zoning	Existing	Proposed
Hotel	21.1 acres	39.1 acres
Single Family Residential	214 acres	9.8 acres
Multi Family Residential	26 acres	18.7 acres
Park	11.5 acres	271.7 acres
Open Space	12 acres	89.5 acres
Golf	332.4 acres	78 acres
Public	1 acres	0 acres
Resort Commercial	0 acres	57.2 acres
Removal from Project District	- acres	(129.70) acres
TOTAL	**618 acres**	**564 acres**

c. Land Classifications and Required Approvals

Current land classifications of the Project Area and proposed changes are as follows:

State Districts

- Current: Agricultural and Rural (See **Figure 4** and **Figure 5**)
- Proposed: Agricultural and Urban

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County Designations

- Lānaʻi Community Plan
  - Current: Project District, Open Space, Agriculture, and Rural (see **Figure 6**)
  - Proposed: Project District
- Maui County Zoning
  - Current: Project District, Agricultural and Interim
  - Proposed: Project District

3. AGRICULTURAL CONDITIONS

a. Soil Types

As shown in **Figure 7**, the Project Area contains 8 soil types. Their acreages are shown in **Table 2** by their quality as rated by the Natural Resources Conservation Service (NRCS), formerly known as the Soil Conservation Service.

Table 2. Koele Project District Revisions Soil Types and NRCS Ratings

Soil Types	Acres		NRCS Rating
KcB	70.6	47.0%	IIe
KcC	27.6	18.3%	IIIe
KrB	6.7	4.5%	IIe
KrC	9.3	6.2%	IIIe
KRL	24.8	16.5%	IIIe
LaB	4.2	2.8%	IIe
LaC	0.3	0.2%	IIIe
WoB	6.8	4.5%	IIe
Total	150.4	100.0%	

For each of the 8 soil types, the complete name, the range of slopes, and soil descriptions are:

- **KcB: Kalae silty clay, 2 to 7 percent slopes**

  The Kalae Series consists of well drained soils on uplands on the islands of Molokaʻi and Lānaʻi. The KcB soils are gently sloping and occupies smooth uplands. The surface layer is dark reddish-brown silty clay about 15 inches thick. The upper part of subsoil, about 26 inches thick, is dark reddish silty clay that has subangular blocky structure and the lower part, about 21 inches thick, is dark-red and reddish-brown silt loam. The soil is strongly acid. Permeability is moderately

rapid. Runoff is slow and the erosion hazard is slight. The soils are used for pasture and pineapple.

- **KcC: Kalae silty clay, 7 to 15 percent slopes**

  The KcC soils are characterized by 7 to 15 percent slopes. Runoff is slow to medium and the erosion hazard is slight to moderate. The soils are used for pasture and pineapple.

- **KrB: Koele silty clay loam, 3 to 7 percent slopes**

  The Koele Series consists of well-drained soils on the islands of Lānaʻi, Maui, and Molokaʻi. These soils formed in alluvium derived from basic igneous material. The KrB soils occurs on fans and in drainage ways and the surface layer is dark brown silty clay loam about 18 inches thick. The next layer, 30 to more than 40 inches thick, consists of stratified dark-brown alluvium that ranges from silty clay loam to coarse sandy loam in texture. The soils are slightly acid to medium acid, except that the surface layer is generally very strongly acid in areas used for pineapple.

- **KrC: Koele silty clay loam, 7 to 15 percent slopes**

  On the KrC soils, runoff is medium and the erosion hazard is moderate. Workability is slightly difficult because of the slope. This soil is used for pineapple and wildlife habitat.

- **KRL: Koele-Badland complex**

  The KRL complex occurs mainly in large gulches. It consists of Koele Soils at the bottom of gulches and Badland on the sides of gulches. The Koele soils are similar to the KrB soil, except that the slope is mainly 7 to 20 percent. These soils make up 60 to 80 percent of the acreage. Badland consists of highly weathered rock and makes up 20 to 40 percent of the acreage.

- **LaB: Lahaina silty clay, 3 to 7 percent slopes**

  The Lahaina Series consists of well-drained soils on uplands on the islands of Lānaʻi, Maui, Molokaʻi, and Oʻahu. These soils developed in material weathered from basic igneous rock. They are nearly level to steep. The LaB soils are on smooth uplands. Included in mapping were small areas that are underlain by consolidated sand at a depth below 30 inches. The surface layer is dark-reddish-brown, silty clay about 15 inches thick. The subsoil, about 45 inches thick, is dusky-red and dark reddish brown subangular blocky silty clay and silty clay loam. Permeability is moderate. Runoff is slow and the erosion hazard is slight.

- **LaC: Lahaina silty clay, 7 to 15 percent slopes**

  The LaC soils have a profile similar to LaB, except that most of the surface

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layer and, in places, part of the subsoil have been removed by erosion. Runoff is medium, and the erosion hazard is severe. This soil is used for sugarcane and pineapple.

- **WoB: Waihuna clay, 3 to 7 percent slopes**

  The Waihuna Series consists of well drained and moderately well drained soils on alluvial fans and in depressions on the islands of Lānaʻi and Molokaʻi. These soils formed in old, fine-textured alluvium. The WoB soils occur on Molokaʻi and Lānaʻi. Runoff is slow and the erosion hazard is slight. This soil is used for pineapple.

b. Soil Characteristics

The majority of lands in the Project Area exhibits a number of favorable characteristics for farming, including relatively gentle sloping and well drained soils. However, due to lack of available irrigation water, the Project Area is not suitable for intensive field farming. A portion of the Project Area and the surrounding areas were historically used for pineapple production, which requires relatively little water.

c. Soil Ratings

Three (3) classification systems are commonly used to rate Hawaiʻi soils: (1) Land Capability Grouping, (2) Agricultural Lands of Importance to the State of Hawaiʻi, and (3) Overall Productivity Rating.

Land Capability Grouping (NRCS Rating)

The 1972 Land Capability Grouping by the U.S. Department of Agriculture, NRCS rates soils according to eight (8) levels, ranging from the highest classification level "I" to the lowest "VIII".

Assuming irrigation, approximately 88.4 acres (59%) of the Project Area have soils that are rated in Class IIe (refer to **Table 2**). Class II soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices. The subclassification "e" indicates that the limitations are due to erosion. Approximately 62 acres (41%) of the Project Area have soils that are rated in Class IIIe. Class III soils have severe limitations that reduce the choice of plants, require special conservation practices, or both.

These ratings ignore the lack of irrigation water for the Project Area.

Agricultural Lands of Importance to the State of Hawaiʻi (ALISH)

ALISH ratings were developed in 1977 by the NRCS, UH College of Tropical

Agriculture and Human Resources, and the State of Hawaiʻi, Department of Agriculture. This system classifies land into three (3) broad categories: (a) "Prime" agricultural land which is land that is best suited for the production of crops because of its availability to sustain high yields with relatively little input and with the least damage to the environment; (b) "Unique" agricultural land which is non-Prime agricultural land used for the production of specific high-value crops; and (c) "Other" agricultural land which is non-Prime and non-Unique agricultural land that is important to the production of crops.

Approximately 69.2 acres (46%) of the Project Area have soils that are rated "Unique" and 48.2 acres (32%) of the Project Area are rated "Other" (see **Figure 8** and **Table 3**). The reminder of the Project Area is unclassified.

Table 3. Agricultural Lands of Importance to the State of Hawaiʻi Classification

Classification	Acres	
Prime	0.0	0.0%
Unique	69.2	46.0%
Other	48.2	32.0%
Unclassified	33.0	22.0%
Total	150.4	100.0%

Overall Productivity Rating (LSB Rating)

In 1967, the UH Land Study Bureau (LSB) developed the Overall Productivity Rating, which classifies soils according to five (5) levels, with "A" representing the class of highest productivity and "E" the lowest.

Approximately 101.8 acres (67.7%) of the Project Area are rated D, 29.3 acres (19.5%) are rated E, and 19.3 acres (12.9%) are rated C (see **Figure 9** and **Table 4**). The low rating reflects the lack of irrigation water for the Project Area.

Table 4. Land Study Bureau Classification

Classification	Acres	
A	0.0	0.0%
B	0.0	0.0%
C	19.3	12.9%
D	101.8	67.7%
E	29.3	19.5%
Not Classified	0.0	0.0%
Total	150.4	100.0%

Summary Evaluation of Soil Quality

The Project Area has lands that are considered relatively good farmland based on the soil quality. Approximately a half of the Project Area is characterized as "Unique" farmland with a small portion of "Other" farmland by ALISH. The entire Project Area is rated II or III by NRCS, indicating that it has moderate or severe limitations for farming. The Project Area has well drained soils that are able to sustain high yields.

It is noted that this evaluation ignores the lack of irrigation water.

d. Slopes

Most of the Project Area has slopes of less than 8%.

e. Climatic Conditions

Like other areas in Hawai'i, the island of Lāna'i has a mild semitropical climate that is due primarily to three factors: (1) Hawai'i's mid-Pacific location near the Tropic of Cancer, (2) the surrounding warm ocean waters that vary little in temperature between the winter and summer seasons, and (3) the prevailing northeasterly tradewinds that bring air having temperatures which are close to those of the surrounding waters.

Solar Radiation

The Project Area receives a moderate level of sunshine, with average daily insolation of about 410 calories per square centimeter per day.

Rainfall

Average annual rainfall at the Project Area is approximately 32 inches. Most of this rainfall occurs during the winter rainy season (October through April), while the summer months (May through September) are hot and dry.

Temperatures

Average temperatures range from the mid-60s in the winter to the low 70s in the summer.

Winds

The prevailing surface winds are tradewinds that blow between the islands of Maui and Moloka'i. This wind increases evaporation and soil erosion on the north and east sides of Lāna'i. Occasional strong winds can cause crop damage if unprotected by windbreaks.

f. Irrigation Water

Lāna'i has five (5) water systems, including two (2) drinking water systems, one (1) brackish water system used for irrigation, and two (2) reclaimed water systems, also used for irrigation (see **Figure 10**). Historically, fields on the island of Lāna'i were irrigated with a combination of surface water from Maunalei Valley and groundwater from wells once used for pineapple cultivation. Figure 10 presents the existing water system on Lāna'i.

Due to a limited amount of potable water on Lāna'i, brackish groundwater and treated wastewater are used to irrigate the golf courses and resort landscaping. Water is not available to support extensive diversified crop farming on Lāna'i unless the crop requires very little water as was the case with pineapple.

g. Locational Advantages and Disadvantages

Lāna'i Island Market

The Project Area is well-located for supplying the Lāna'i Island market because of the relatively short distance from the Project Area to Lāna'i City (the island's commercial and population center) and to Manele Resort.

The Lāna'i Island Market is relatively small: according to the U.S. Census American Community Survey (ACS) 5-Year Estimate, the resident population of Lāna'i between 2013 and 2017 was estimated to be 3,203.

Maui Island Market

Lāna'i farmers are at a disadvantage when competing against Maui farmers because of inter-island shipping costs, delays, and extra handling. There is no regular barge service between Lāna'i and Maui Island.

The Maui County market is significant, with about 167,207 residents in 2018.

O'ahu Market

All neighbor island farmers are at a disadvantage when competing against O'ahu farmers in supplying the Honolulu market due to inter-island shipping costs, delays, and extra handling. In comparing barge and air-cargo services, shipping by barge is less expensive and larger loads can be shipped, but the shipments are slow and infrequent. Air service is faster and frequent, but it is far more expensive, and capacities are limited.

In 2018, O'ahu's population was estimated to be about 980,080 residents.

Mainland Market

Compared to Hawai‘i, the mainland market is enormous: in 2017, the U.S. population waas estimated to be 325.7 million. In supplying this market with products that can be carried by container ship—i.e., products having long shelf-lives such as coffee, nuts, and canned fruit—most neighbor-island farmers are competitive with farmers on O‘ahu. Even though freight from must first be barged to Honolulu then transferred onto a container ship, Matson’s overseas shipping service includes inter-island barge service at no additional fee: except for some minor port charges, Matson charges a common fare for all islands. However, Matson does not service Lāna‘i, so additional shipping fees are required when exporting to the mainland.

In the case of fresh products that must be shipped by air to the mainland—i.e., products having short shelf-lives such as fresh vegetables, fruits, and flowers—farmers on Lāna‘i are at a disadvantage compared to O‘ahu farmers because most mainland air cargo is shipped via Honolulu International Airport. Compared to farmers on O‘ahu, Lāna‘i farmers encounter additional costs, delays, and handling to cover inter-island air-cargo service and transferring the fresh produce from small inter-island aircraft to large overseas aircraft.

In the U.S. mainland market, Hawai‘i farmers must also compete against farmers on the mainland and in Mexico, Central and South America, Southeast Asia, etc. Most of the competing farm areas have lower production and delivery costs than Hawai‘i does. Competing against Mexico is particularly difficult given existing trade agreements and Mexico’s proximity to major U.S. markets.

Summary of Locational Advantages

In terms of location, farmers on the island are relatively well-situated to supply the small Lāna‘i Island market.

However, compared to farmers on O‘ahu and the other islands, they are at a disadvantage in supplying the Honolulu and mainland markets.

h. Summary of Agricultural Conditions

The Project Area has some favorable agronomic conditions: soils are good; solar radiation is moderate; and the trucking distances to Lāna‘i City and Mānele Resort are short.

However, the Project Area is unsuitable for field farming to supply crops to Lāna‘i markets, or for export to O‘ahu or the mainland. The major problems are the lack of irrigation water, the Lāna‘i market is very small, and Lāna‘i farmers are at a competitive disadvantage in supplying the O‘ahu and mainland markets because of shipping costs.

4. PAST AGRICULTURAL USES

In 1922, James Dole purchased nearly the entire island of Lāna‘i and began developing a plantation for his Hawaiian Pineapple Company, Ltd. (HAPCo). Pineapple was suitable for Lāna‘i’s agricultural conditions because Lāna‘i has fertile soils and pineapple requires relatively little water. For almost 70 years, the island of Lāna‘i was the world’s largest pineapple plantation with more than 18,000 acres of cultivated lands.

In 1931, Castle & Cooke purchased 21% of the shares of HAPCo, and by 1961 owned the entire company which by then had been renamed Dole Food Company.

In 1980s and 1990s, stiff competition from plantations in Latin America and the Philippines brought declining profitability to the Hawai‘i pineapple industry.

In 1985, David H. Murdock purchased Castle & Cooke, which owned approximately 98% of the island of Lāna‘i. Pineapple cultivation was slowly phased out, with the final harvest in 1992. By then, the island’s economy was shifting from agriculture to tourism.

Since the end of pineapple cultivation on Lāna‘i, the Project Area and the surrounding former pineapple plantation lands have been fallow.

5. EXISTING AND FUTURE COMMERCIAL FARMING ON LĀNA‘I

a. Existing Farms and related activities

Only one commercial farmer operates on Lāna‘i, selling fresh produce to local grocery stores and the hotels. In addition, some part-time farmers grow crops for personal consumption, and some sell to the grocery stores.

The Stables at Koele is an equestrian operation located on Kanepu‘u Highway north of Lāna‘i City. The Stables utilize 215 acres of land, with facilities including a 3,800-square foot (sq. ft.) barn, six (6) run-in shelters (288 sq. ft. each), and three (3) 40-foot storage containers. An approximately 55-acre portion of the lands utilized by the Stables is located within the proposed Koele PD. The Stables keep 48 horses and offer various ranch experiences to guests, including group horseback rides, private horseback rides, horse lessons, pony rides, miniature horse cart rides, and shire carriage rides. In addition to the equestrian experiences, the Stables has a petting zoo with various goats, donkeys, and miniature horses. The Stables plans to add 10 corrientes (steers) and possibly bring in some alpacas, chickens, and additional goats to the property.

b. Agricultural Park

There is a plan for a 100-acre agricultural park on the island of Lāna‘i. In 1992, the Land Use Commission required Castle & Cooke’s Lāna‘i Resort to set aside 100 acres for the development and operation of an agricultural park by the State Department of Agriculture

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and County of Maui for the residents of Lānaʻi. This was a condition for approving the Manele Golf Course. However, there has not been any progress on developing the park due to a lack of interest.

c. Hydroponic Farm

Sensei Farms Lānaʻi is developing a hydroponic farm to supply fresh produce to local markets, and possibly to off-island markets. At full development, the farm will include ten (10) greenhouses, each of which will cover nearly a half acre (160 feet by 124 feet). One of the major advantages of hydroponic farming is that it requires relatively little water compared to field farming. The greenhouses will be powered by an off-grid photovoltaic system.

A Head House building has been constructed, which includes a lab, conference rooms, a dining room for employees, offices, a locker room, multi-function space, and a kitchen. The kitchen will be used for cooking demonstrations and meal preparation using produce from the hydroponic farm.

6. IMPACT ON AGRICULTURAL OPERATIONS IN THE PROJECT AREA

The Koele PD will include 57 acres of proposed Resort Commercial use. Of this, 55 acres are part of the Stables at Koele's 215-acre facility. This 55-acre portion of the Stables of Koele includes the existing barn and other related facilities. The Stables at Koele facilities will remain in its current location and will be incorporated into the Project District. The Resort Commercial designation will allow Pūlama Lānaʻi to utilize the land within the Stables at Koele for parties and events. These events will use a portion of the Stable lands about eight times per year, and will be open air and/or under tents.

In addition, two (2) historic buildings will be relocated to the 55-acre portion of the Stables. These historic properties will to be converted to a museum and a retail shop. Also, a third building may be constructed, resulting in a total of about 30,000 square feet of commercial space (about 2 acres with parking and landscaping). The commercial operations are expected to be compatible uses with the Stables at Koele operation.

Beyond the Stables at Koele, there are no other existing or planned agricultural operations within the Project Area.

Inasmuch as the revised Koele PD will not require relocation of the Stables at Koele facilities, and only about 2 acres of 215 acres of the Stables will be lost, the Project will have no significant impact on existing agricultural operations.

7. IMPACT ON THE GROWTH OF AGRICULTURE

About 12 acres of the Project Area will be lost to agriculture, including about (1) 10 acres of land that will be rezoned by the County from Agriculture to Hotel, and (2) about 2 acres that will be developed on land planned for Resort Commercial but are now zoned Agriculture and used for the Stables. An additional 55 acres will be rezoned from Agriculture to Resort Commercial, but nearly all of these lands will continue to be used for the Stables along with occasional commercial events.

There are approximately 18,000 acres of former plantation lands on Lānaʻi which remain available for agricultural use.

Statewide, the remaining supply of available farmland released by plantation agriculture exceeds 200,000 acres. This is about 3.7 times the amount of land in crop—about 54,000 acres. About 15,000 acres of the 54,000 acres are used for food crops grown primarily for the Hawaiʻi market, while about 39,000 acres are used primarily for export crops (pineapple, macadamia nuts, coffee, seeds, flowers, etc.).

The supply of available farmland is vast because of the statewide contraction and closure of many sugarcane and pineapple plantations during the past four decades, combined with the subsequent slow growth of diversified-crop farming (i.e., all crops other than sugarcane and pineapple)—see **Figure 11**.

Figure 11 also shows the growth of diversified-crop acreage. Even though Hawaiʻi has a long history of strong support for its agriculture industry, little growth in diversified-crop acreage has occurred since 1983, with the single exception being seed crops. However, seed acreage has declined in recent years, and the seed-crop industry faces public opposition over their development of genetically modified organisms (GMO) crops.

The lack of significant growth of diversified crops reflects increased competition from overseas resulting from technology and other advances that have improved the delivery of fresh produce (faster, less spoilage, better coordination of supply to demand), along with trade agreements which increased food exports to the U.S. from low-cost producers in Mexico, Central America, South America, and elsewhere.

Following the plantation closures on Oʻahu, vegetable and melon acreage expanded on the capital island, but this was followed by declines on the Neighbor Islands for the farmers who exported to Oʻahu.

The loss of about 12 acres of agriculture land on Lānaʻi, plus the loss of agricultural land due to other projects (i.e., the cumulative impact), is too small to affect the growth of diversified agriculture on Lānaʻi or Statewide.

8. OFFSETTING BENEFITS

The loss of 12 acres of agricultural land will be offset by the following community benefits of the Project:

Construction Activity

- Construction jobs and income associated with Project development.
- Indirect jobs and income generated by purchases of goods and services by construction companies and families of construction workers.

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- State tax revenues (excise taxes, personal income taxes, corporate income taxes, etc.) paid by construction companies and workers, and by companies and families that are supported by construction activity.

Operations, Full Development

- Employment and income generated by hotel and resort-commercial operations.
- Tax revenues derived from County property taxes and State taxes (excise, personal income, cooperate income, and transient accommodations tax).

9. CONSISTENCY WITH STATE AND COUNTY POLICIES

a. Availability of Lands for Agriculture

The Hawai‘i State Constitution, the Hawai‘i State Plan, the State Agriculture Functional Plan, the County of Maui 2030 General Plan, and the County's Lāna‘i Community Plan call directly or implicitly for preserving the economic viability of plantation agriculture and promoting the growth of diversified agriculture. To accomplish this, an adequate supply of agriculturally suitable lands and water must be assured.

With regard to plantation agriculture, the Project Area is no longer part of a pineapple plantation. The last pineapple harvest was in 1992.

With regard to diversified agriculture, the Project will not result in the loss of any existing agricultural operation since the Stables will remain, and the Project Area is not currently being cultivated and has not been cultivated since 1992.

Although the Project will reduce the availability of agricultural land by about 12 acres, the Project will not limit the growth of diversified agriculture statewide or on Lāna‘i since ample agricultural land is available due to the loss of nearly all plantations in Hawai‘i.

b. Conservation of Agricultural Lands

In addition to the above, State and County policies call for conserving and protecting prime agricultural lands, including protecting farmland from urban development.

It should be noted that many of the State agricultural policies were written before the major contraction of plantation agriculture (from 1981 to 2016), and assume implicitly that profitable agricultural activities eventually will be available to utilize all available agricultural lands. This has proven to be a questionable assumption in view of the enormity of the contraction of plantation agriculture, the abundant supply of farmland that came available for diversified agriculture, and the slow growth in the amount of land being utilized for diversified agriculture.

Furthermore, discussions in the State Agriculture Functional Plan recognize that redesignation of lands from Agricultural to Urban and/or Rural should be allowed *"... upon a demonstrated change in economic or social conditions, and where the requested redesignation will provide greater benefits to the general public than its retention in ...agriculture;"* that is, when an *"overriding public interest exists."* The enormous contraction of plantation agriculture, which resulted in the supply of agricultural land far exceeding demand, constitutes a major change in economic conditions. Moreover, the Project will provide community benefits (jobs, tax revenues, etc.) that far exceed the benefits of leaving 12 acres in agriculture. In practice, the Project is expected to have no significant impact on agricultural activity since ample land is available statewide to accommodate the anticipated growth of diversified agriculture.

10. REFERENCES

Act 25, S.B. No. 1158, April 15, 1993.

County of Maui, Department of Water Supply. *Lanai Water Use & Development Plan, 2011*.

County of Maui, Planning Department. *County of Maui 2030 General Plan Countywide Policy Plan*. 2010.

County of Maui, Planning Department. *Lanai Community Plan*. 2002.

Giambelluca, T.W., Q. Chen, A.G. Frazier, J.P. Price, Y.-L. Chen, P.-S. Chu, J.K. Eischeid, and D.M. Delparte, 2013: *Online Rainfall Atlas of Hawai‘i*. Bull. Amer. Meteor. Soc. 94, 313-316, doi: 10.1175/BAMS-D-11-00228.1.

Giambelluca, T.W., X. Shuai, M.L. Barnes, R.J. Alliss, R.J. Longman, T. Miura, Q. Chen, A.G. Frazier, R.G. Mudd, L. Cuo, and A.D. Businger. 2014. *Evapotranspiration of Hawai‘i. Final report submitted to the U.S. Army Corps of Engineers—Honolulu District, and the Commission on Water Resource Management, State of Hawai‘i.*

Harold L. Baker. *Agricultural Lands of Importance in the State of Hawai‘i.* University of Hawai‘i College of Tropical Agriculture and Human Resources, Honolulu, Hawai‘i. 1977.

Hawai‘i Agricultural Statistics Service. *Statistics of Hawaiian Agriculture*. Honolulu, Hawai‘i. Annual.

https://www.bizjournals.com/pacific/news/2017/04/03/100-acre-agriculture-park-on-billionaire-larry.html?ana=RSS%26s%3Darticle_search&utm_source=_feedburner&utm_medium=feed&utm_campaign=Feed%3A+bizj_pacific+%28Pacific+Business+News+of+Honolulu%29 (Accessed on November 14, 2018)

Lanai Culture & Heritage Center. *Pineapple of Lāna‘i.* https://www.lanaichc.org/pineapple-history.htm (accessed on November 6, 2018).

Lanai Water Company. *History.* http://lanaiwatercompany.com/about-us/history/ (accessed on November 13, 2018)

REF-34

Pacific Business News. *100-acre agriculture park on billionaire Larry Ellison's Lanai gaining traction* (April 3, 2017).

State Land Use Commission. *State Land Use District Maps*. Effective dated December 20, 1974.

State of Hawai'i, Department of Agriculture. *State Agriculture Functional Plan*. 1991.

State of Hawai'i. *Hawaii State Planning Act, Chapter 226*, Hawai'i Revised Statutes.

State of Hawai'i, Department of Agriculture. *Agricultural Lands of Importance to the State of Hawai'i*. 1977.

The Maui News. *Ellison's hydroponic farm on Lanai is set to open by late '18* (April 1, 2018). http://www.mauinews.com/news/local-news/2018/04/ellisons-hydroponic-farm-on-lanai-is-set-to-open-by-late-18/ (Accessed on November 14, 2018).

U.S. Census Bureau. American Community Survey 5 Year Estimate, 2013-2017.

U.S. Department of Agriculture, Soil Conservation Service in cooperation with The University of Hawai'i Agricultural Experiment Station. *Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawai'i.* Washington, D.C. August 1972.

FIGURES

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REF-35

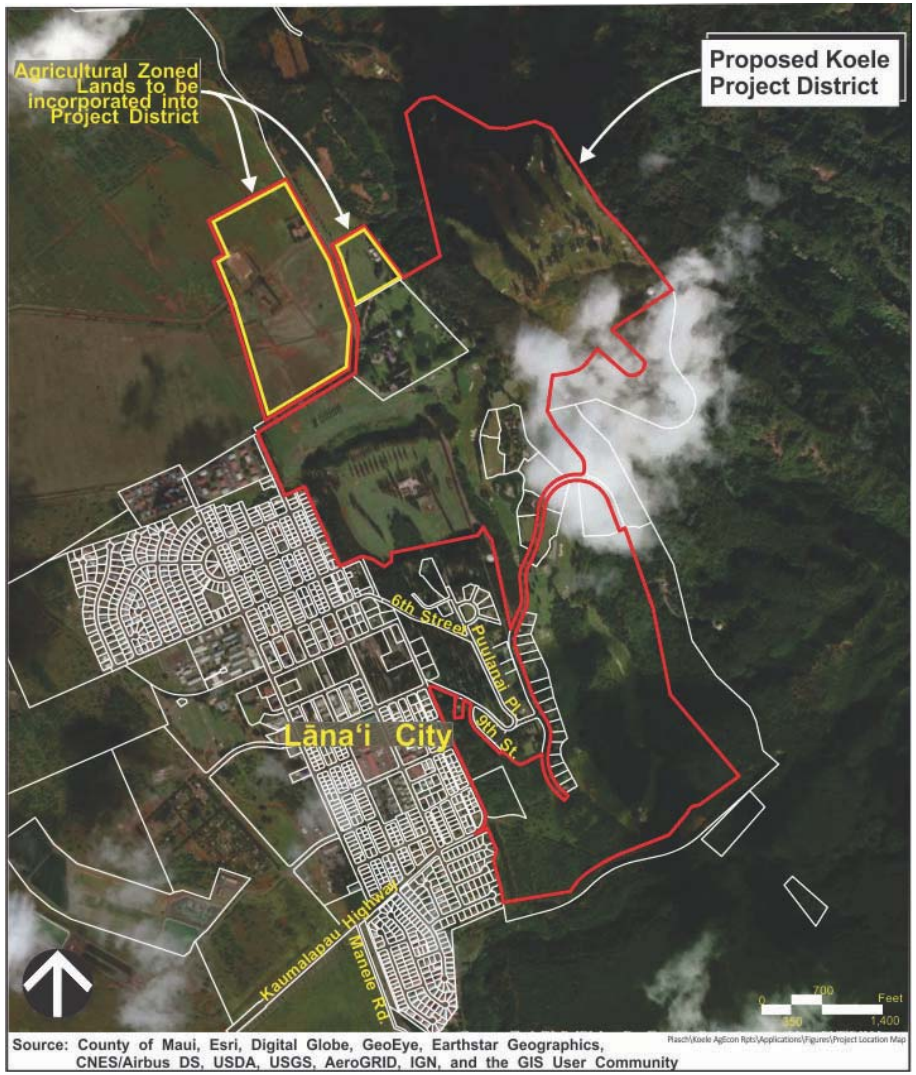

Figure 1. Project Location Map

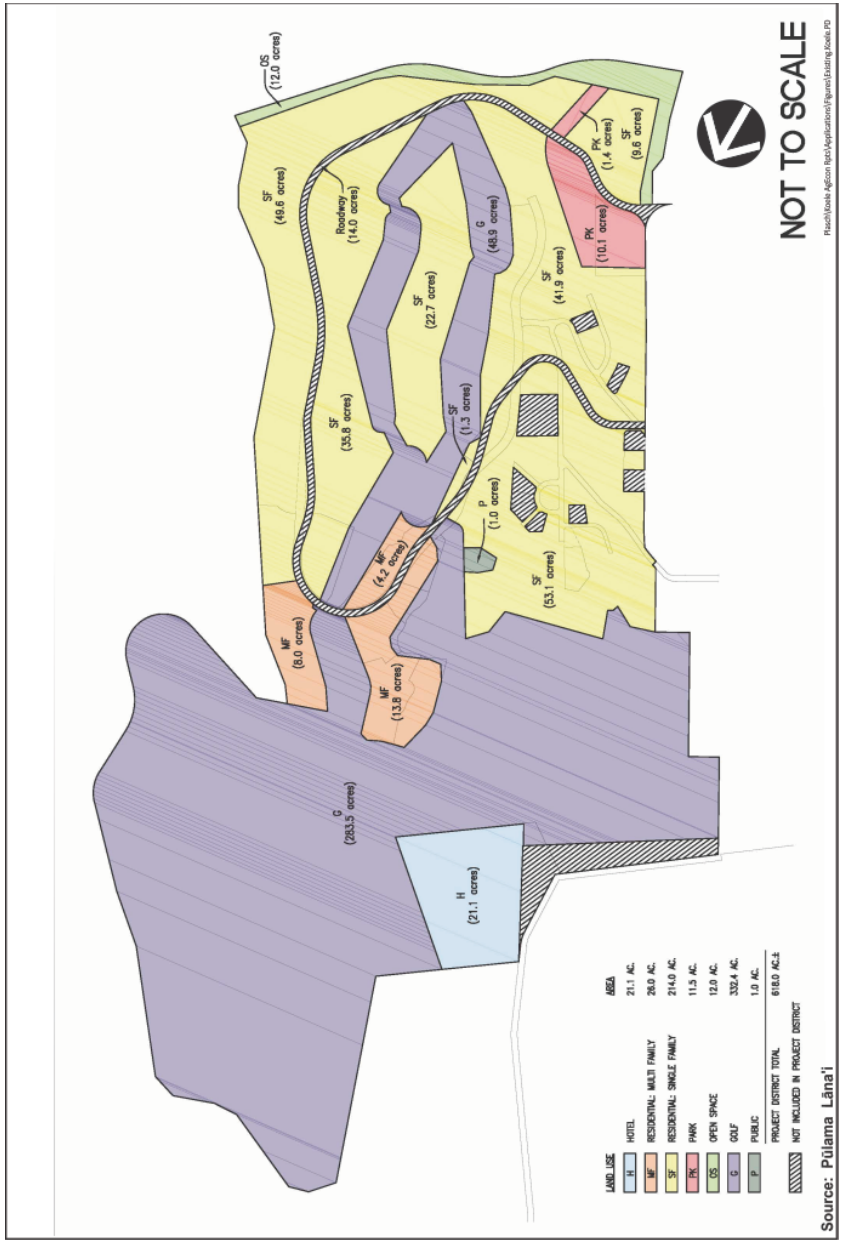

Figure 2. Existing Koele Project District

REF-36

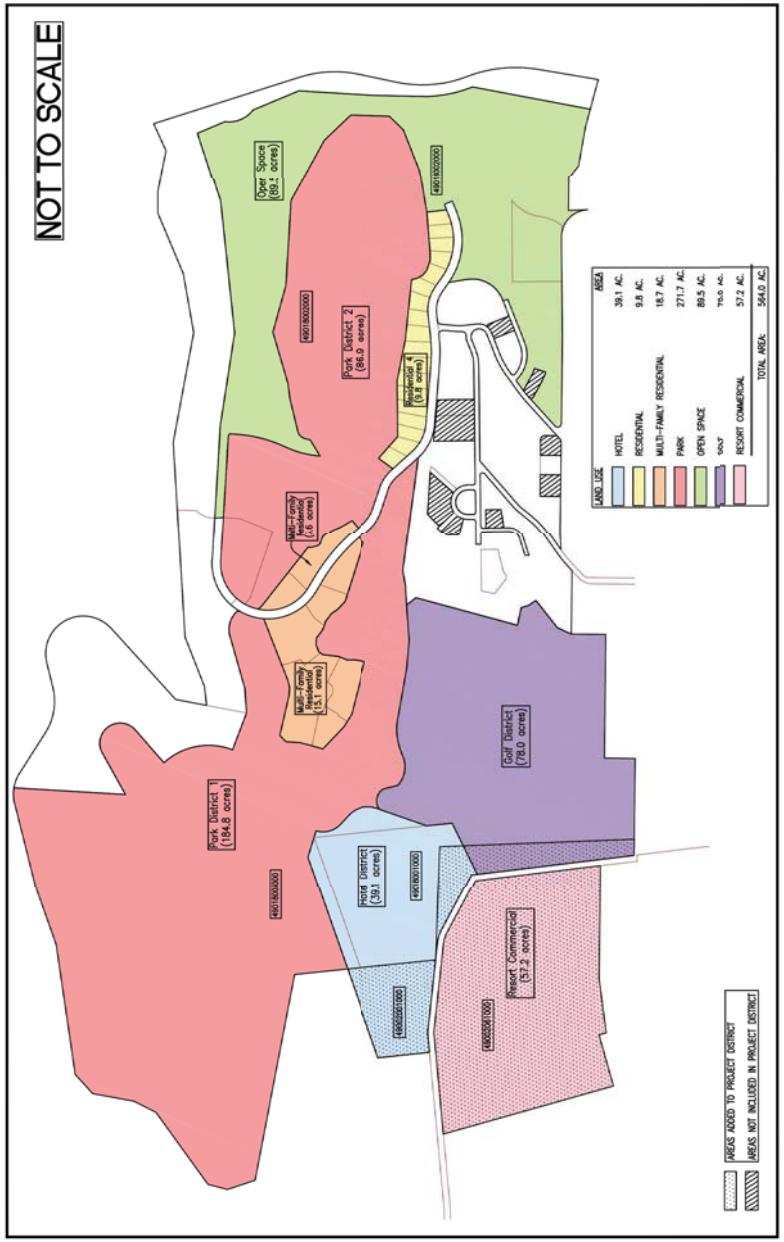

Figure 3. Proposed Koele Project District Map

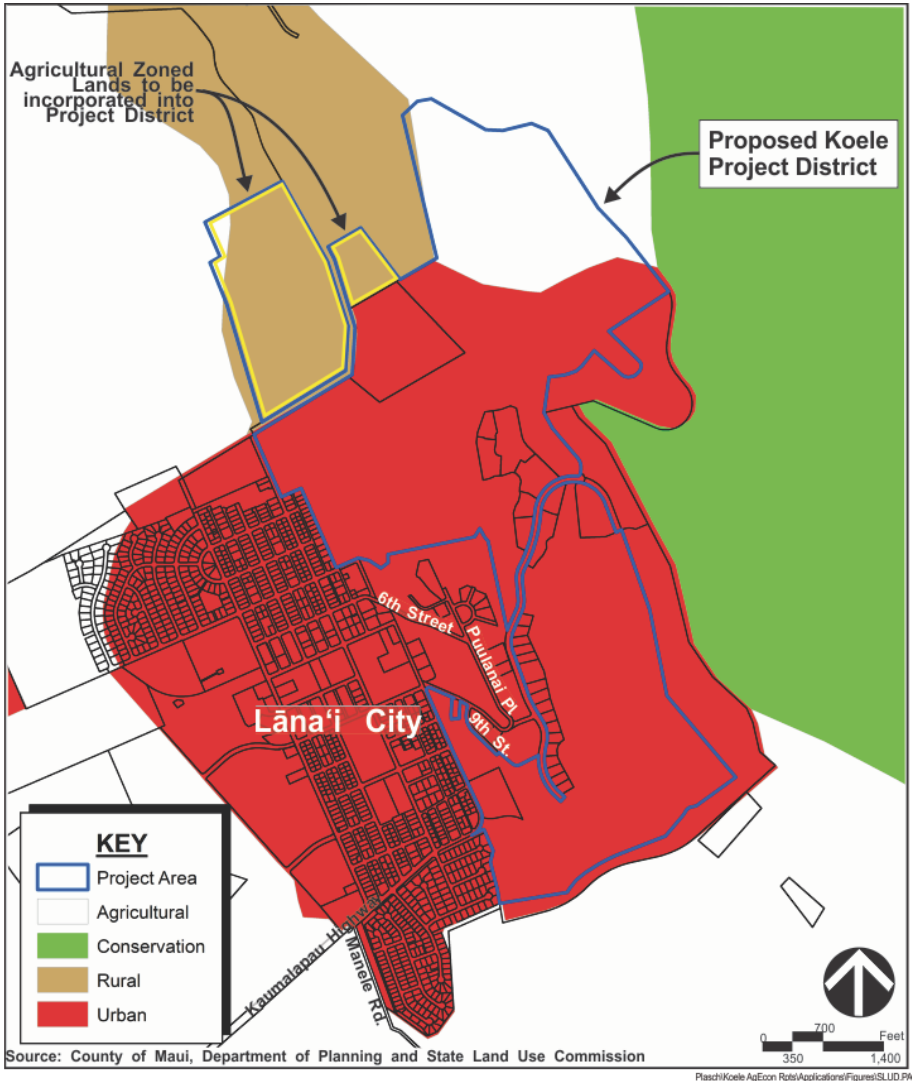

Figure 4. State Land Use District Classification, Project Area

REF-37

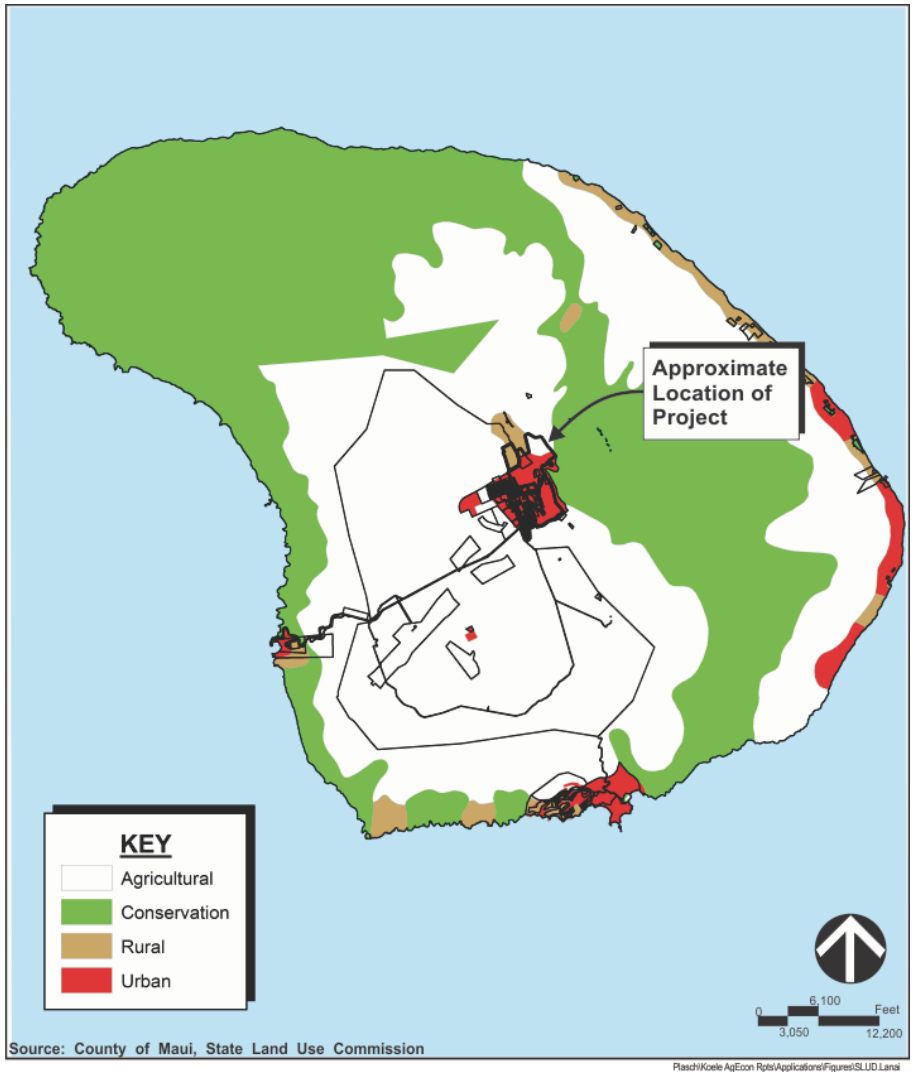

Figure 5. State Land Use District Classification Map, Island of Lānaʻi

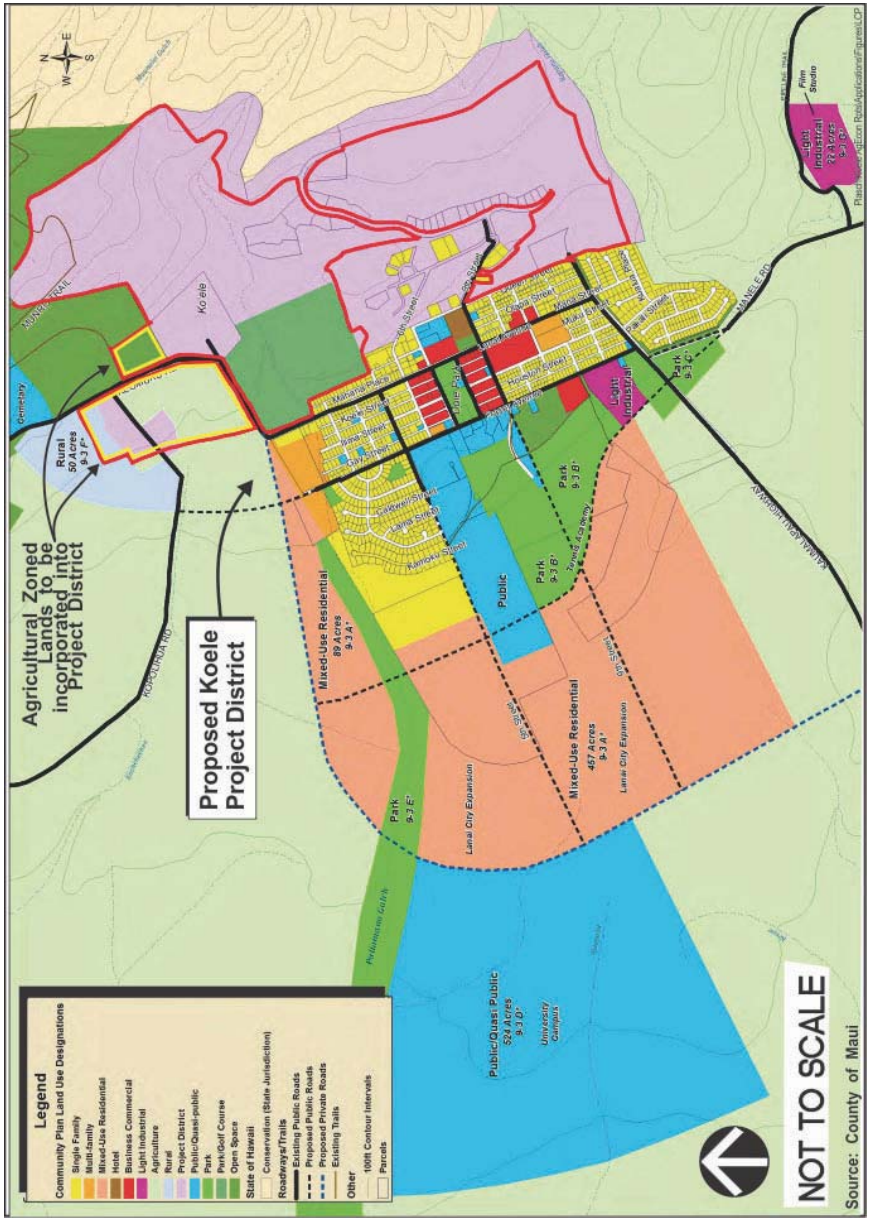

Figure 6. Community Plan Map

REF-38

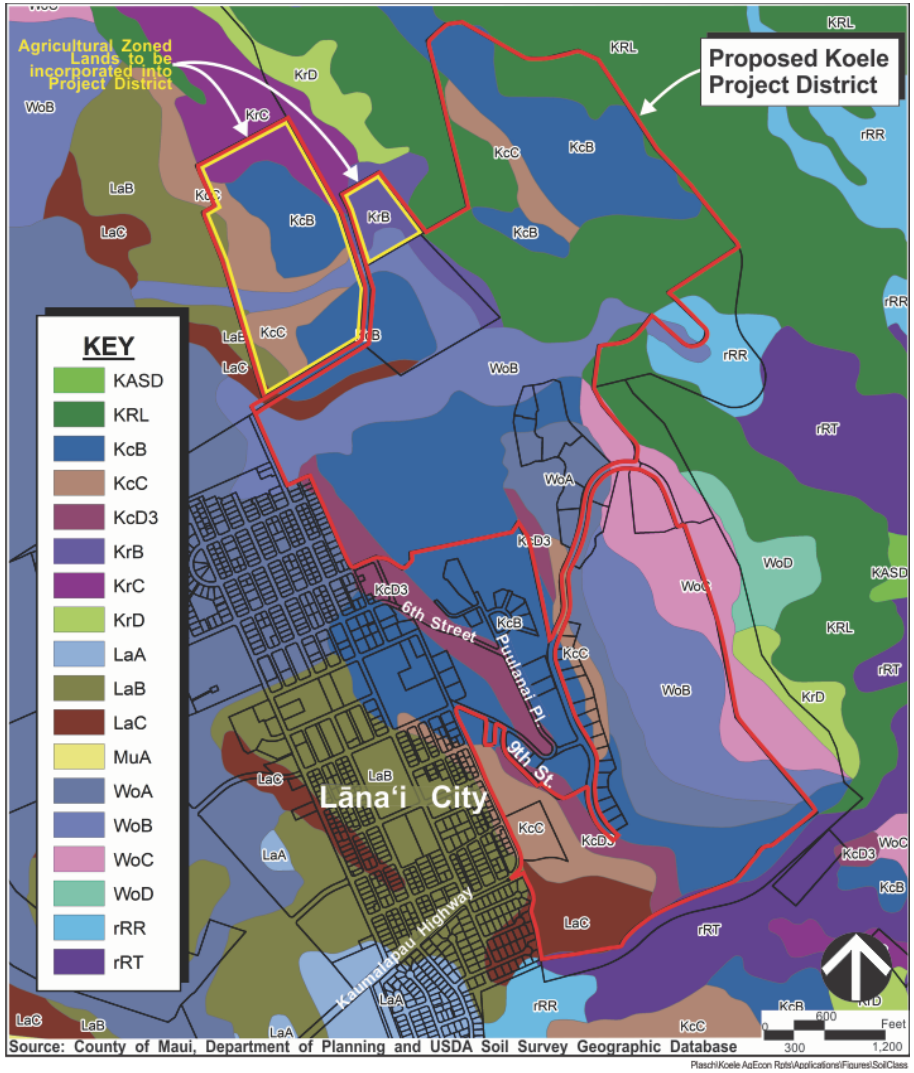

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Figure 7. Soil Classification Map

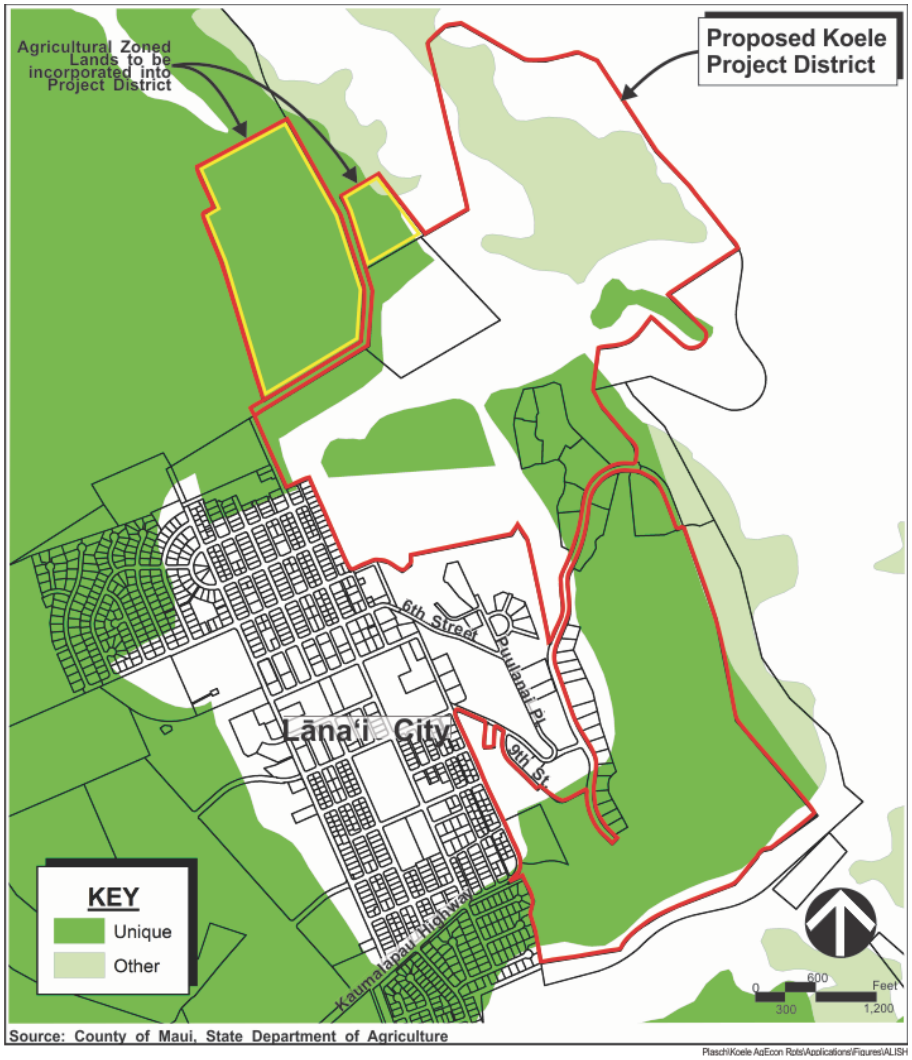

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Figure 8. Agricultural Lands of Importance to the State of Hawaiʻi

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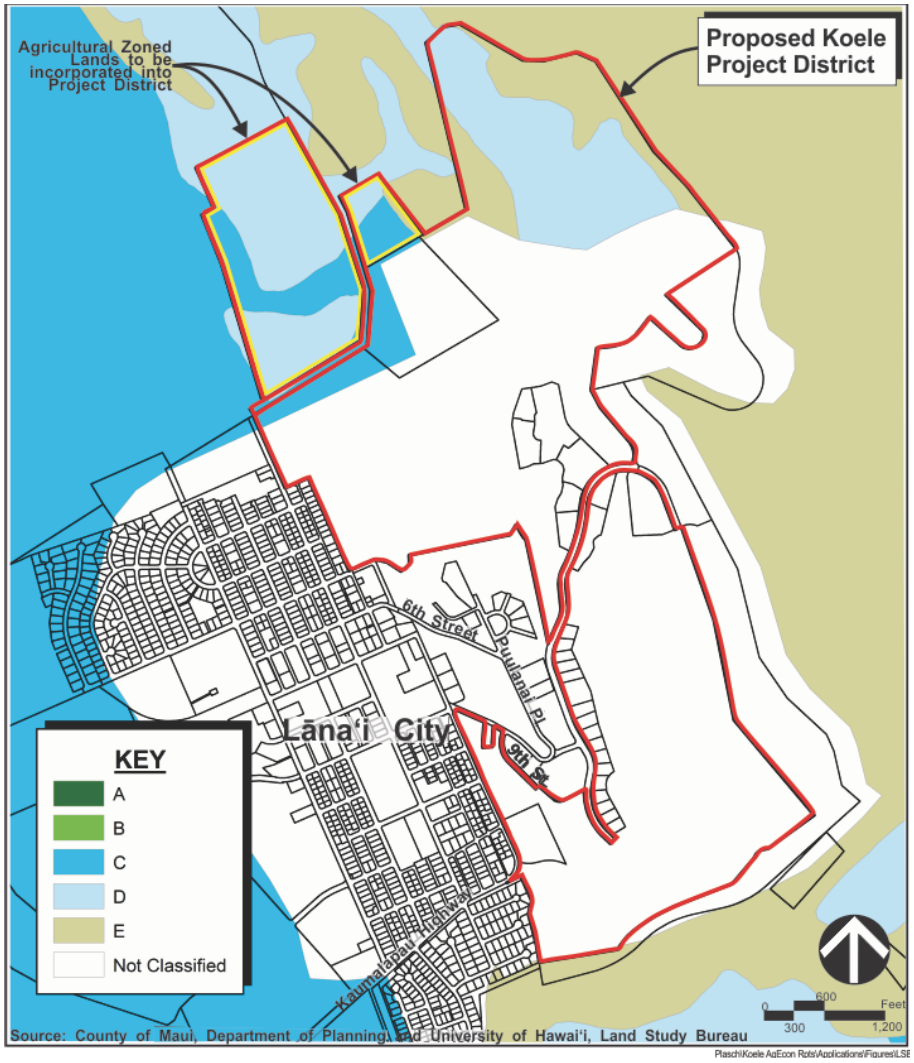

Figure 9. Land Study Bureau Map

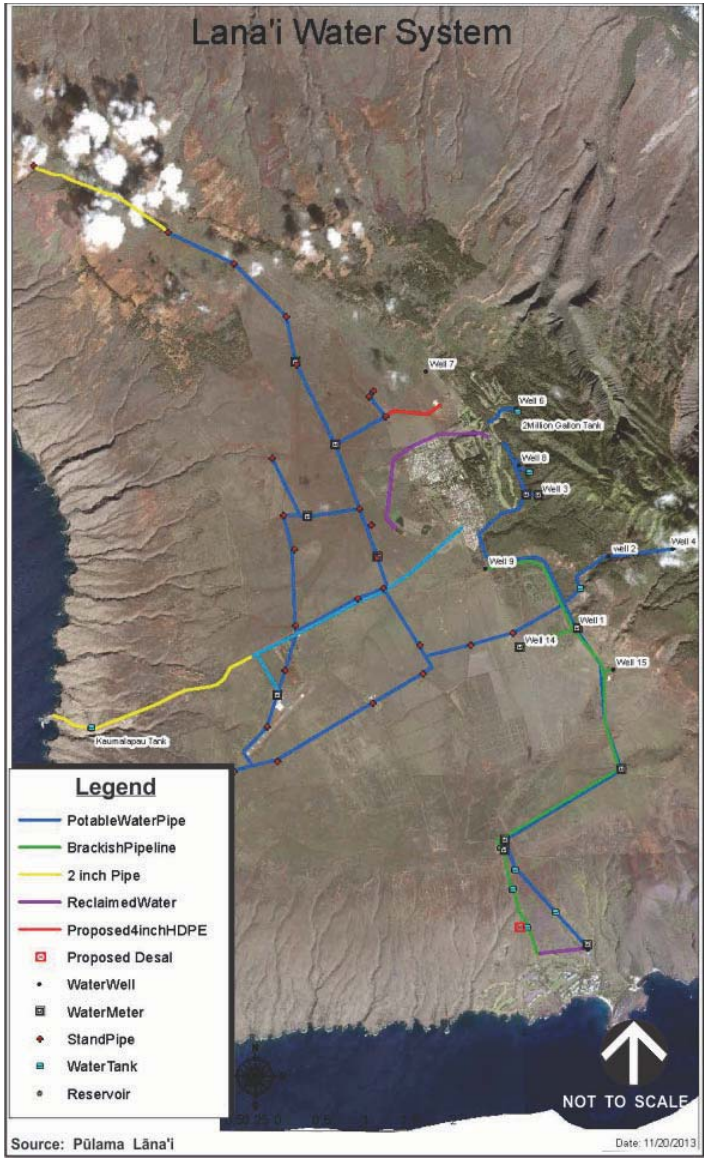

Figure 10. Lānaʻi Water System

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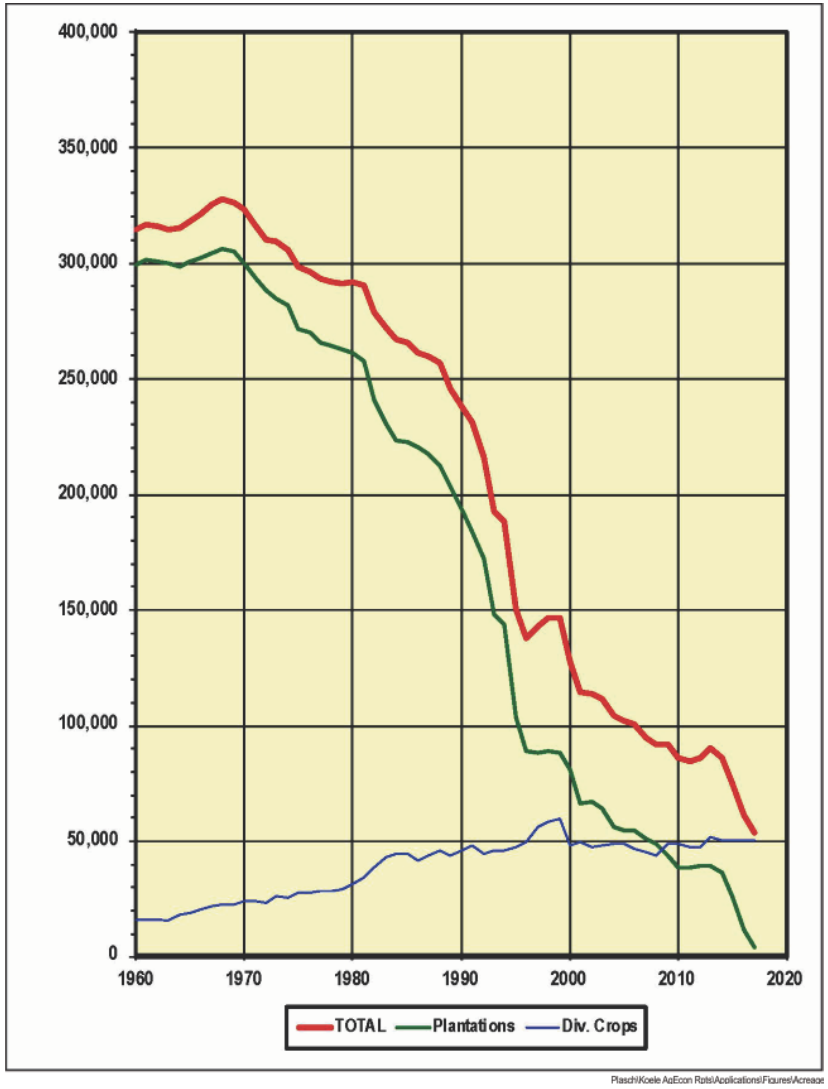

Figure 11. Acreage in Crop, Hawai'i: 1960 to 2017

APPENDIX

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APPENDIX

STATE AND COUNTY GOALS, OBJECTIVES, POLICIES AND GUIDELINES RELATED TO AGRICULTURAL LANDS

1. **HAWAI'I STATE CONSTITUTION** (Article XI, Section 3):

   ...to conserve and protect agricultural lands, promote diversified agriculture, increase agricultural self-sufficiency and assure the availability of agriculturally suitable lands...

2. **HAWAI'I STATE PLAN** (Chapter 226, Hawaii Revised Statutes, as amended):

   Section 226-7 Objectives and policies for the economy--agriculture.

   (a) Planning for the State's economy with regard to agriculture shall be directed towards achievement of the following objectives:

   (1) Viability in Hawaii's sugar and pineapple industries.

   (2) Growth and development of diversified agriculture throughout the State.

   (3) An agriculture industry that continues to constitute a dynamic and essential component of Hawaii's strategic, economic, and social well-being.

   (b) To achieve the agricultural objectives, it shall be the policy of the State to:

   (2) Encourage agriculture by making best use of natural resources.

   (10) Assure the availability of agriculturally suitable lands with adequate water to accommodate present and future needs.

   (16) Facilitate the transition of agricultural lands in economically nonfeasible agricultural production to economically viable agricultural uses.

   Section 226-103 Economic priority guidelines.

   (c) Priority guidelines to promote the continued viability of the sugar and pineapple industries:

   (1) Provide adequate agricultural lands to support the economic viability of the sugar and pineapple industries.

   (d) Priority guidelines to promote the growth and development of diversified agriculture and aquaculture:

   (1) Identify, conserve, and protect agricultural and aquacultural lands of importance and initiate affirmative and comprehensive programs to promote economically productive agricultural and aquacultural uses of such lands.

(10) Support the continuation of land currently in use for diversified agriculture.

Section 226-104 Population growth and land resources priority guidelines.

(b) Priority guidelines for regional growth distribution and land resource utilization:

(2) Make available marginal or non-essential agricultural lands for appropriate urban uses while maintaining agricultural lands of importance in the agricultural district.

3. **AGRICULTURAL STATE FUNCTIONAL PLAN** (1991)

(Functional plans are guidelines for implementing the State Plan. They are approved by the Governor, but not adopted by the State Legislature.)

Objective H: Achievement of Productive Agricultural Use of Lands Most Suitable and Needed for Agriculture.

Policy H(2): Conserve and protect important agricultural lands in accordance with the Hawaii State Constitution.

Action H(2)(a): Propose enactment of standards and criteria to identify, conserve, and protect important agricultural lands and lands in agricultural use.

Action H(2)(c): Administer land use district boundary amendments, permitted land uses, infrastructure standards, and other planning and regulatory functions on important agricultural lands and lands in agricultural use, so as to ensure the availability of agriculturally suitable lands and promote diversified agriculture.

4. **COUNTY OF MAUI 2030 GENERAL PLAN, COUNTYWIDE POLICY PLAN (2010)**

Countywide goals, objectives, policies and actions

F. Strengthen the Local Economy

Objective

2. Diversify and expand sustainable forms of agriculture and aquaculture.

Policies

b. Prioritize the use of agricultural land to feed the local population, and promote the use of agriculture lands for sustainable and diversified agricultural activities.

e. Support ordinances, programs, and policies that keep agricultural land and water available and affordable to farmers.

Implementing Actions

c. Create agricultural parks in areas distant from genetically modified crops.

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J. Promote Sustainable Land Use and Growth Management

Objective

2. Improve planning for and management of agricultural lands and rural areas.

Policies

a. Protect prime, productive, and potentially productive agricultural lands to maintain the islands' agricultural and rural identities and economies.

c. Discourage developing or subdividing agriculturally designated lands when non-agricultural activities would be primary uses.

Implementing Actions

a. Inventory and protect prime, productive, and potentially productive agricultural lands from competing non-agricultural land uses.

5. COUNTY OF MAUI, LĀNA'I COMMUNITY PLAN (2016)

C. ENVIRONMENT AND NATURAL RESOURCES

3. **Goals, Policies, Actions**

Policies

4. Recognize and support agricultural forestry and game BMPs as key elements to maintain preserve and protect Lana island water and marine resources

6. REFERENCES

Act 25, S.B. No. 1158, April 15, 1993.

County of Maui. *County of Maui 2030 General Plan, Countywide Policy Plan.* Adopted by Ordinance No. 3732, effective on March 24, 2010.

Hawaii Department of Agriculture. *The Hawaii State Plan: Agriculture, State Functional Plan*. 1991.

Maui County Council. *Lāna'i Community Plan (2016).*

State of Hawaii, Office of State Planning, Office of the Governor. *The Hawaii State Plan, 1991.* 1991.

GEOTECHNICAL ENGINEERING ASSESSMENT DUE DILIGENCE STUDY

APPENDIX

C

REF-44

GEOLABS, INC.

Geotechnical Engineering and Drilling Services

April 28, 2021
W.O. 7931-00

Ms. Keiki-Pua Dancil
Pulama Lanai
733 Bishop Street, Suite 2000
Honolulu, HI 96813

ATTEST LETTER FOR CHANGES
GEOTECHNICAL ENGINEERING ASSESSMENT
DUE DILIGENCE STUDY
KOELE DISTRICT DEVELOPMENT
ISLAND OF LANAI, HAWAII

Dear **Ms. Dancil:**

We were originally contracted to complete a Geotechnical Engineering Assessment Due Diligence Study for the draft Environmental Assessment for the Koele Project District Amendment. The assessment report was transmitted to your office on July 18, 2019, entitled as "Geotechnical Engineering Assessment, Due Diligence Study, Koele District Development, Island of Lanai, Hawaii", dated July 18, 2019.

Since the completion of our study, Pulama Lanai has adjusted the uses and associated acres within the project district. This is reflected in the map below.

Additionally, an inconsistency between MCC Chapter 19.71.080 and Ordinance 1581, 2140, and 2852 was identified by Pūlama Lānaʻi while finalizing their application. A non-contiguous 14.5-acre parcel (TMK: [2] 4-9-002:061 (portion)) is zoned "Project District" in Ordinance 2852, however, no subdistrict designation is assigned to the 14.5 acres in Ordinance 2852. Furthermore, there is no record of the 14.5 acres in Ordinance 1581, Ordinance 2140, and MCC Chapter 19.71.080, where the subdistricts are identified by the number of acres. Pūlama Lānaʻi has incorporated this 14.5-acre section (identified as "Stables & Tennis Courts" in CIZ Map 2615) into the Proposed Kōʻele Project District Map, it was not identified in earlier maps provided to our firm.

We attest that the results of our technical study referenced above do not change based on the updated map.

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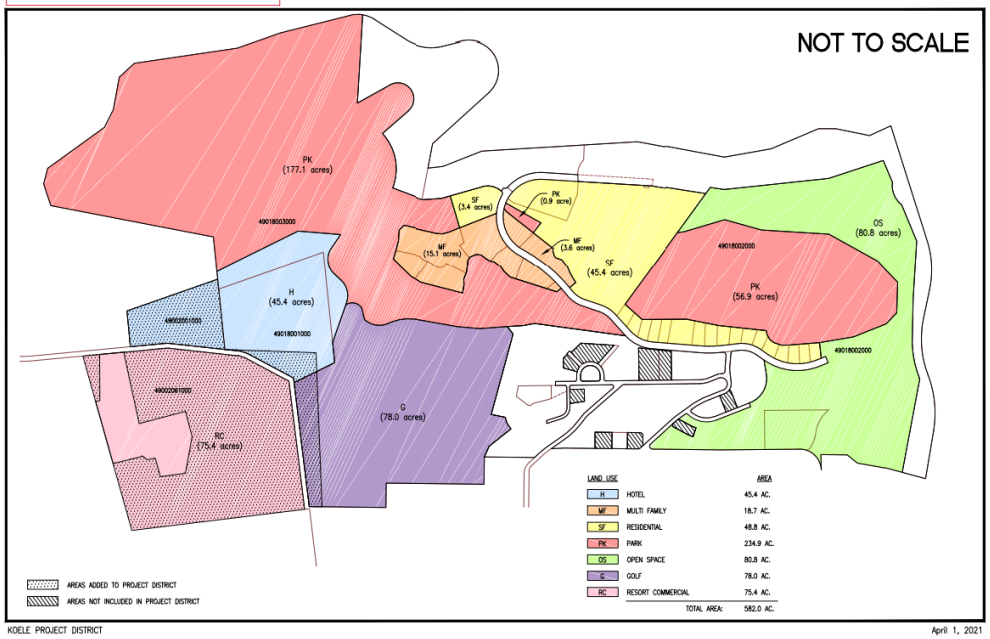
Telephone: (808) 841-5064 • E-mail: hawaii@geolabs.net

Hawaii • California

Proposed Kō'ele Project District Map



LIMITATIONS

The findings and discussions submitted in this letter report are based, in part, upon information obtained from site reconnaissance, literature research, and past experience in the vicinity of the proposed development. It should be noted that it is not possible to observe and/or anticipate all the site conditions based on a brief reconnaissance of the project site and review of literature. Variations of the subsurface conditions from those described in this letter report may occur, and the nature and extent of these variations may not become evident until further design-level geotechnical engineering exploration is conducted at the project site or construction is underway.

A design-level geotechnical engineering exploration should be conducted to confirm and/or modify the preliminary assessments provided herein. Our services on this project were performed in accordance with generally accepted standards of geotechnical engineering practice; no warranty is expressed or implied.

This letter report has been prepared solely for the purpose of assisting our client (Pulama Lanai) in the evaluation and planning of the project only. Therefore, this report may not contain sufficient data, or the proper information, to serve as the basis for detailed design and preparation of construction drawings. A design-level geotechnical exploration will need to be conducted for a detailed project design.

CLOSURE

We appreciate the opportunity to provide engineering services to you on this project. If you have questions or need additional information, please contact our office.

Respectfully submitted,

GEOLABS, INC.

By _____
John Y.L. Chen, P.E.
Vice President

JOHN Y.L. CHEN
LICENSED PROFESSIONAL ENGINEER
No. 10029-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

_____ 4-30-22
SIGNATURE EXPIRATION DATE OF THE LICENSE

JC:

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GEOLABS, INC.
Geotechnical Engineering and Drilling Services

July 18, 2019
W.O. 7931-00

Ms. Lynn McCrory
Pulama Lanai
733 Bishop Street, Suite 2000
Honolulu, HI 96813

GEOTECHNICAL ENGINEERING ASSESSMENT
DUE DILIGENCE STUDY
KOELE DISTRICT DEVELOPMENT
ISLAND OF LANAI, HAWAII

Dear **Ms. McCrory:**

This letter report presents the findings from our review of the available geological and subsurface information in support of a due diligence study for the proposed Koele District Development project on the Island of Lanai, Hawaii. The project location and general vicinity are shown on the Project Location Map, Plate 1.

The intent of this due diligence study is to inform the owner about potential geotechnical risks involved and the geotechnical considerations that may need to be addressed for the development of the proposed project. The findings presented herein are subject to the detailed geotechnical engineering exploration and limitations noted at the end of this letter report.

PROJECT CONSIDERATIONS

The project site is an approximate 60 acres open land located along the northwestern side of Lanai City on the Island of Lanai, Hawaii. Based on the information provided, we understand that the development involves expansion of the Koele Resort for a resort commercial facility. Details of the planned development were not available at the time this report was prepared.

Based on the information provided, it is desired to conduct a preliminary geotechnical engineering assessment in support of a due diligence evaluation of the site with respect to the proposed development. The scope of our geotechnical engineering assessment consisted of site reconnaissance, review of the available geological maps and subsurface information from previous explorations conducted in the project vicinity only. A design-level field exploration program was not conducted for this due diligence study.

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REGIONAL GEOLOGY

The Island of Lanai is a shield volcano built by eruptions at the summit and along three rift zones more than 1.20 to 1.46 million years ago. The principal rift zone trends northwestward as a broad ridge and is responsible for the conspicuous elongation of the island in that direction. A less conspicuous bulge on the southern side of the island is the result of volcanic extrusion on the southwest rift zone. The rift zones intersect at the island summit. The summit of the shield volcano collapsed to form a caldera from which a shallow graben, bordered by an echelon of step faults, extends south-southeastward toward Manele Bay. Numerous dikes exposed in the sea cliff indicate that this Manele Graben lies along another rift zone.

The caldera was largely, but not completely, filled by lava flows and the present Palawai Basin is a remnant of the caldera. Just to the west of it, Miki Basin (with an average diameter of about 0.9 miles) is a nearly filled pit crater. The top of the ridge between these basins is about 140 feet above the floor of the Palawai Basin. On the south, the floor of Palawai Basin merges with the floor of the Manele Graben, where the most recent lava flows in the caldera overflowed onto the outer slope of the volcano.

The Island of Lanai was built by the extrusion of thin-bedded a'a and pahoehoe tholeiitic basaltic flows that are generally inclined at about 6 to 15 degrees from horizontal (where not disturbed by faulting). Volcanic rocks on the Island of Lanai are grouped as the Lanai Volcanic Series. The near-surface soils generally consist of well-drained, fine-textured and moderately fine-textured soils derived from volcanic ash and the in-situ weathering of the igneous rocks. The formation of the Island of Lanai was also the result of large changes in sea-level that caused submergence and re-emergence of the land mass through geologic time. Faulting and stream erosion in conjunction with changes in sea-level are also responsible for the high sea cliffs along the southern and western coastlines.

The project site is located on the north side of the Palawai Basin and near the northeastern end of the Hoopapalani Hill. Recent agricultural and residential developments created the gentle sloping terrain within the plateau encompassing the Palawai Basin and Miki Basin. Most of the soils in the project area are alluvium and residual/saprolitic soils, derived from the gulch/stream depositions and in-situ weathering of volcanic ash and igneous rock. In general, the residual and saprolitic soils grade to basaltic rock formation with depth.

The project geological map and vicinity are shown on the Project Geological Map, Plate 2.

DISCUSSIONS AND RECOMMENDATIONS

Based on our experience in the project vicinity and the anticipated subsurface conditions, the proposed development at the planned project limits is feasible in the respect of geotechnical engineering consideration. Several geotechnical considerations listed below may have the potential for impacts on the design and construction of the

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proposed development project and should be thoroughly studied during the project design phase. Based on our experience and a review of the available information for this site, the geotechnical considerations include, but are not limited to, the following. These items are discussed further in the following subsections.

- Site Preparation
- Expansive Soils
- Excavations
- Cut and Fill Slopes
- Other Foundation Considerations

Site Preparation

In general, we anticipate that the surface materials at the project site consist of fill materials that have been tilled over during the agricultural and/or ranch operations in the past and/or present. In some areas, recent alluvium may present at the ground surface.

At the on-set of earthwork, areas within the contract grading limits should be cleared and grubbed thoroughly. Vegetation, debris, deleterious materials, and other unsuitable materials, should be removed and disposed of properly off-site to reduce the potential for contamination of the excavated materials.

In general, the subgrades in cut areas and areas designated to receive fills should be scarified to a depth of about 8 inches, moisture-conditioned to above the optimum moisture content, and recompacted to a minimum of 90 percent relative compaction. However, it should be noted that excessive moisture in the fill materials and recent alluvium may create pumping ground conditions. Therefore, the contractor should use caution not to overwater when moisture-conditioning fine-grained soils. Where soft or pumping ground conditions are encountered during construction, over-excavation and replacement with suitable fills may be required.

Expansive Soils

We anticipate that the near-surface clayey soils at the project site generally exhibit a moderate potential for shrinking and swelling when subjected to moisture fluctuations.

To reduce the potential for appreciable future distress to these lightly loaded slabs-on-grade resulting from shrinking and swelling of the near-surface clayey soils, we envision the slab subgrade to be properly scarified to a minimum depth of 8 inches, moisture-conditioning to at least 2 percent above the optimum moisture content, and recompacting to a minimum of 90 percent relative compaction, as appropriate. In addition, a minimum of 12 inches of non-expansive, select granular fill material should be provided below the slab cushion. The non-expansive, select granular fill should also extend beyond the perimeter of the slab a minimum of 24 inches (or extend to the edge of the concrete sidewalk/walkway surrounding the slab, if applicable).

Excavations

We anticipate that the on-site clayey soils may be excavated with conventional earthmoving equipment. However, it should be noted that cobbles and boulders could be encountered within the alluvial and/or river deposits. Therefore, some difficult excavation conditions may be anticipated in localized areas during construction. It is possible that the excavation for a portion of the utility line trenches may require the use of hoerams or chipping.

Therefore, selection of the new foundation system for the development would need to consider its constructability with respect to the potential presence of cobbles and boulders.

Cut and Fill Slopes

We anticipate that the cut slopes may generally expose the stiff clayey soils at the project site. Based on this assumption, we envision designing the cut slopes with a slope inclination of 2H:1V or flatter.

Permanent fill slopes constructed using the excavated on-site soils or imported fill materials may be designed with a slope inclination of 2H:1V or flatter. Fills placed on slopes steeper than 5H:1V should be keyed and benched into the existing slope to provide stability of the new fill against sliding. The filling operations should start at the lowest point and continue up in level horizontal compacted layers. Fill slopes should be constructed by overfilling and cutting back to the design slope ratio to obtain a well-compacted slope face. In the event over-cutting of a slope occurs, keying and benching requirements should be implemented instead of backfilling the slope to the design grade with sliver fills. The fill slope face should be free of voids, which would allow erosion and migration of fines to occur. In addition, materials greater than 6 inches in largest dimension should not be exposed at the fill slope face.

Construction of earth berms, interceptor ditches, and the use of geotextile fabrics over the fill slope face should be considered to reduce the potential for significant erosion, thus enhancing the long-term stability of the fill slopes. Appropriate slope planting or other permanent erosion control measures to reduce the potential for significant erosion of the exposed slopes (including a permanent irrigation system) should be implemented as soon as possible after the finished slope faces are completed.

Other Foundation Considerations

We envision that some one to two stories buildings may be required for the project. Based on the anticipated subsurface conditions at the project site, we believe shallow spread and/or continuous strip footings may be used to support the new buildings for the project. As an alternative, foundations for support of the new structures also may consist of thickened-edge slab footings.

We envision that the building foundations will be supported on clayey fills and/or alluvial materials. Therefore, proper preparation and compaction of the foundation subgrades will be critical during construction. Foundation subgrades should not be exposed to overwatering or inclement weather.

LIMITATIONS

The findings and discussions submitted in this letter report are based, in part, upon information obtained from site reconnaissance, literature research, and past experience in the vicinity of the proposed development. It should be noted that it is not possible to observe and/or anticipate all the site conditions based on a brief reconnaissance of the project site and review of literature. Variations of the subsurface conditions from those described in this letter report may occur, and the nature and extent of these variations may not become evident until further design-level geotechnical engineering exploration is conducted at the project site or construction is underway.

A design-level geotechnical engineering exploration should be conducted to confirm and/or modify the preliminary assessments provided herein. Our services on this project were performed in accordance with generally accepted standards of geotechnical engineering practice; no warranty is expressed or implied.

This letter report has been prepared solely for the purpose of assisting our client (Pulama Lanai) in the evaluation and planning of the project only. Therefore, this report may not contain sufficient data, or the proper information, to serve as the basis for detailed design and preparation of construction drawings. A design-level geotechnical exploration will need to be conducted for a detailed project design.

CLOSURE

We appreciate the opportunity to provide engineering services to you on this project. If you have questions or need additional information, please contact our office.

Respectfully submitted,

GEOLABS, INC.

By _____
John Y.L. Chen, P.E.
Vice President

JOHN Y.L. CHEN
LICENSED PROFESSIONAL ENGINEER
No. 10029-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE — EXPIRATION DATE OF THE LICENSE 4-30-18

JC:

Attachments: **PLATES**
Project Location Map, Plate 1
Project Geological Map, Plate 2

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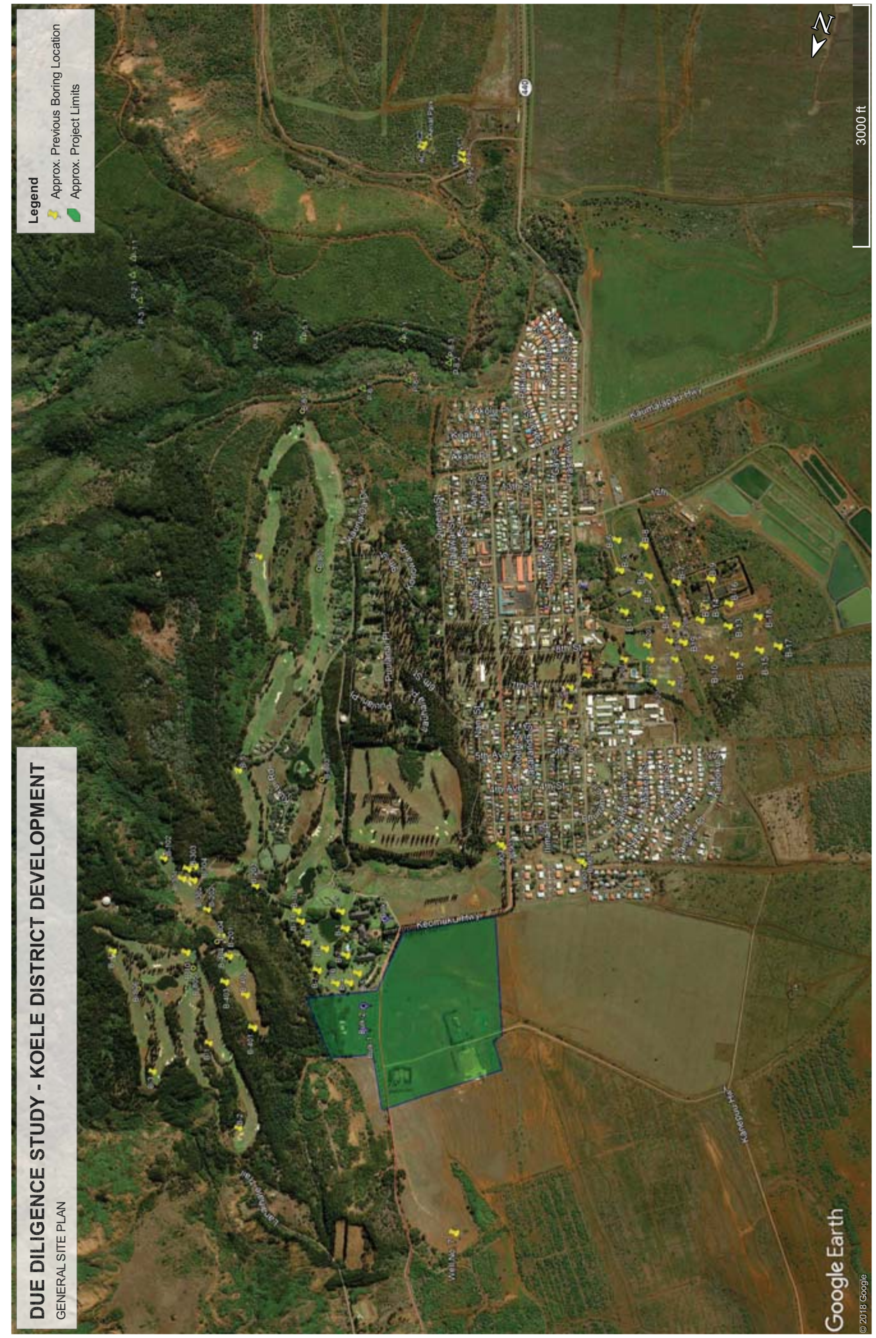
REF-50

PLATES



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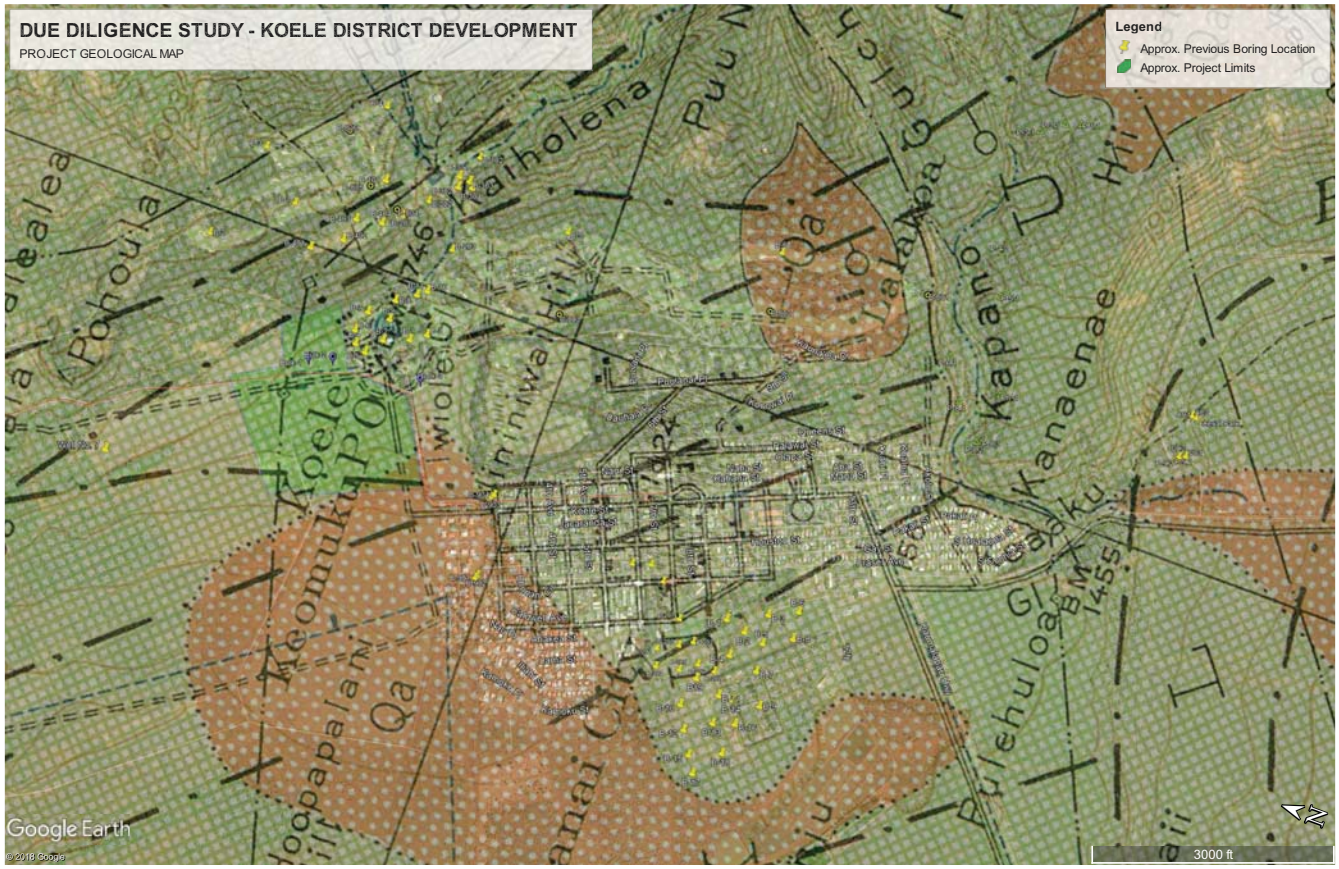

DUE DILIGENCE STUDY - KOELE DISTRICT DEVELOPMENT
PROJECT GEOLOGICAL MAP
Legend
Approx. Previous Boring Location
Approx. Project Limits
Google Earth
© 2018 Google
3000 ft

APPENDIX

FLORA AND FAUNA STUDY

D

REF-53

April 6, 2021

We were originally contracted to complete a Flora and Fauna Study for the draft Environmental Assessment for the Kōʻele Project District Amendment.

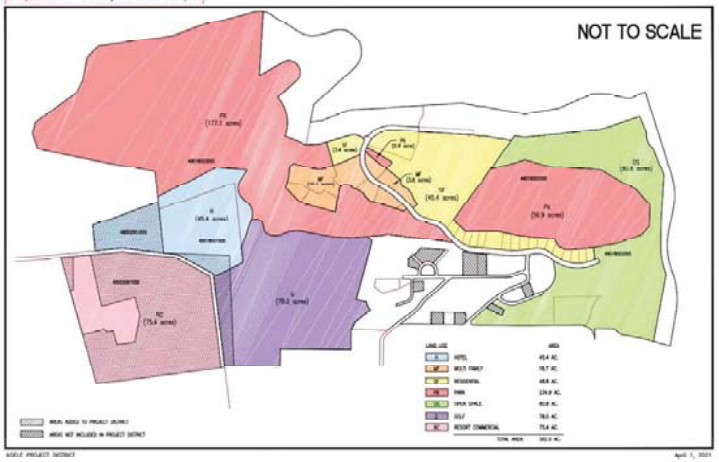
Since the completion of our study, Pūlama Lānaʻi has adjusted the uses and associated acres within the project district. This is reflected in the map below.

Additionally, an inconsistency between MCC Chapter 19.71.080 and Ordinance 1581, 2140, and 2852 was identified by Pūlama Lānaʻi while finalizing their application. A non-contiguous 14.5 acre parcel (TMK: [2] 4-9-002:061 (portion)) is zoned "Project District" in Ordinance 2852, however, no subdistrict designation is assigned to the 14.5 acres in Ordinance 2852. Furthermore, there is no record of the 14.5 acres in Ordinance 1581, Ordinance 2140, and MCC Chapter 19.71.080, where the subdistricts are identified by the number of acres.

Pūlama Lānaʻi has incorporated this 14.5 acre section (identified as "Stables & Tennis Courts" in CIZ Map 2615) into the Proposed Kōʻele Project District Map, it was not identified in earlier maps provided to our firm.

We attest that the results of our technical study, *Flora and Fauna Study, Kōʻele P.D.U. Limits Revision, Lānaʻi, Hawaiʻi,* do not change based on the updated map.

Proposed Kōʻele Project District Map



Signed

Robert W. Hobdy

Robert W. Hobdy (Apr 7, 2021 11:05 HST)

Robert W. Hobdy
Environmental Consultant

Flora and Fauna Study
Kōʻele P.D.U. Limits Revision
Lānaʻi, Hawaiʻi

Robert W. Hobdy
Environmental Consultant
Kokomo, Maui
April 2019

Prepared for:
Lānaʻi Resorts, LLC
dba Pūlama Lānaʻi

REF-54

Kō′ele P.D.U. Limits Revision
Flora and Fauna Assessment
Kō′ele, Lāna′i

INTRODUCTION

The Kō′ele P.D.U. Limits Revision site is located at the north edge of Lāna′i City on two parcels of land, TMK (2) 4-9-002:001 (10 acres) and TMK (2) 4-9-002:061 (58.3 acres) (see Figure 1). This biological study was initiated by Pūlama Lāna′i to inventory and assess the flora and fauna elements present in fulfillment of environmental requirements of the planning process.

SITE DESCRIPTION

The project area is situated on gently sloping land on the east and west sides of Keomoku Highway between the elevations of 1,705 feet and 1,770 feet above sea level. The vegetation consists mostly of open pasture lands with scattered windbreak trees and some shrubland. The soils are characterized as deep, well-drained silty clay soils of the Kalae, Koele and Lahaina series (Foote et al, 1972). Rainfall averages about 35 inches per year, with most occurring during the winter months (Armstrong, 1983).

SURVEY OBJECTIVES

This report summarizes the findings of a flora and fauna study of the proposed Kō'ele P.D.U. Limits Revision project area was conducted in April 2019. The objectives of the survey were to:

1. Document what plant and animal species occur on the property or may likely occur in the existing habitat.

2. Document the status and abundance of each species.

3. Determine the presence or likely occurrence of any native flora and fauna, particularly any that are Federally listed as Threatened or Endangered. If such occur, identify what features of the habitat may be essential for these species.

4. Determine if the project area contains any special habitats which if lost or altered might result in a significant negative impact on the native flora and fauna in this part of the island.

BOTANICAL SURVEY REPORT
SURVEY METHODS

A walk-through botanical survey was used to cover this entire project area. All representative habitats were examined including the grassy pastures, shrublands and forest margins. A complete inventory of all plant species was made with special attention focused on native plant species and whether any of these were federally protected Threatened or Endangered species that might require special attention or actions.

DESCRIPTION OF THE VEGETATION

The vegetation in the project area consists mostly of open pasture lands with some windbreak trees and small areas of shrubland. A total of 62 plant species were recorded during the survey. Five species were common throughout the project area: Christmas berry (*Schinus terebinthifolius*), lantana (*Lantana camara*), Cook pine (*Araucaria columnaris*), fireweed (*Senecio madagascariensis*) and sand mallow (*Sidastrum micranthum*). Several pasture grasses were evenly distributed but none of these were individually common.

Just one native plant species was seen, the indigenous hala tree (*Pandanus tectorius*) and this tree had been planted alongside an old ranch residence. Plant species are generally restricted to those that are inedible to the herds of deer that are found around this area.

DISCUSSION AND RECOMMENDATIONS

The vegetation throughout the project area is dominated by non-native pasture and weed species, none of which are of any conservation interest or concern. No Threatened or Endangered plant species were found during the survey, and no special native plant habitats were found either. As a result, it is determined that developmental projects in this area would not have a significant negative impact on the botanical resources in this part of Lāna′i. No specific recommendations regarding plants are offered.

REF-55

PLANT SPECIES LIST

Following is a checklist of all those vascular plant species inventoried during the field studies. Plant families are arranged alphabetically within each of four groups: Ferns, Conifers, Monocots and Dicots. Taxonomy and nomenclature of the flowering plants are in accordance with the Manual of the Flowering Plants of Hawaii by Wagner, Herbst & Sohmer (1999) and A Tropical Garden Flora by Staples and Herbst (2005).

For each species, the following information is provided:

1. Scientific name with author citation

2. Common English or Hawaiian name.

3. Bio-geographical status. The following symbols are used:

   endemic = native only to the Hawaiian Islands; not naturally occurring anywhere else in the world.

   indigenous = native to the Hawaiian Islands and also to one or more other geographic area(s).

   non-native = all those plants brought to the islands intentionally or accidentally after western contact.

   Polynesian = all those plants brought to the islands by the Hawaiians during the course of their migrations

4. Abundance of each species within the project area:

   abundant = forming a major part of the vegetation within the project area.

   common = widely scattered throughout the area or locally abundant within a portion of it.

   uncommon = scattered sparsely throughout the area or occurring in a few small patches.

   rare = only a few isolated individuals within the project area.

SCIENTIFIC NAME	COMMON NAME	STATUS	ABUNDANCE
FERNS			
NEPHROLEPIDACEAE (Sword Fern Family)			
Nephrolepis brownii (Desv.) Hovencamp & Miyamoto	Asian sword fern	non-native	rare
POLYPODIACEAE (Polypody Fern Family)			
Phymatosorus grossus (Langsd & Fisch.) Brownlie	laua'e fern	non-native	rare
THEYLYPTERIDACEAE (Marsh Fern Family)			
Cyclosorus parasiticus (L.) Far W.	maiden fern	non-native	rare
CONIFERS			
ARAUCARIACEAE (Araucaria Family)			
Araucaria columnaris (G. Forster) J.D. Hooker	Cook pine	non-native	common
MONOCOTS			
ARECACEAE (Palm Family)			
Dypsis lutescens (H.Wendl.) Beentje & J.Dransfield	golden fruited palm	non-native	rare
ASPARAGACEAE (Asparagus Family)			
Cordyline fruticosa (L.) A. Chev.	kī, tī	non-native	rare
Dracaena draco L.	dragon tree	non-native	rare
Dracaena marginata Lamarck	marginata	non-native	rare
Dracaena reflexa Lamarck	song of India	non-native	rare
ASPHODELACEAE (Asphodel Family)			
Aloe vera (L.) N.L. Burman	aloe	non-native	rare
CYPERACEAE (Sedge Family)			
Cyperus gracilis R. Br.	McCoy sedge	non-native	rare
Cyperus rotundus L.	nut sedge	non-native	uncommon
Kyllinga brevifolia Rottbol	kiliʻoʻopu	non-native	rare
HELICONIACEAE (Heliconia Family)			
Heliconia bihai (L.) L.	lobster claw heliconia	non-native	rare
MUSACEAE (Banana Family)			
Musa acuminata x balbisiana Colla	banana	non-native	rare
PANDANACEAE (Screw pine Family			
Pandanus tectorius S. Parkinson ex Z.	hala	indigenous	rare
POACEAE (Grass Family)			
Andropogon virginicus L.	broomsedge	non-native	uncommon
Bothriochloa pertusa (L.) A. Camus	pitted beardgrass	non-native	uncommon
Cynodon dactylon (L.) Pers.	Bermuda grass	non-native	uncommon
Digitaria ciliaris (Retz.) Koeler	Henry's crabgrass	non-native	uncommon
Eragrostis pectinacea (Michx.) Nees	Carolina lovegrass	non-native	uncommon
Eremochloa ophiuroides (Munro) Hackel	centipede grass	non-native	rare
Megathyrsus maximus (Jacq.) Simon & Jacobs	Guinea grass	non-native	rare
Paspalum dilatatum Poir.	Dallis grass	non-native	rare
Sporobolus africanus (Poir.) Robyns & Tournay	smutgrass	non-native	uncommon
STRELITZIACEAE (Bird-of-paradise Family)			
Strelitzia reginae Dryander	bird-of-paradise	non-native	rare

REF-56

SCIENTIFIC NAME	COMMON NAME	STATUS	ABUNDANCE
DICOTS			
ANACARDIACEAE (Mango Family)			
Schinus terebinthifolius Raddi	Christmas berry	non-native	common
APIACEAE (Parsley Family)			
Centella asiatica (L.) Urb.	Asiatic pennywort	non-native	rare
ASTERACEAE (Sunflower Family)			
Ageratum conyzoides L.	maile hohono	non-native	rare
Calyptocarpus vialis Less.	straggler daisy	non-native	uncommon
Cirsium vulgare (Savi) Ten.	bull thistle	non-native	uncommon
Heterotheca grandiflora Nutt.	telegraph weed	non-native	uncommon
Senecio madagascariensis Poir.	fireweed	non-native	common
Verbesina encelioides (Cav.) Benth. & Hook.	golden crown-beard	non-native	uncommon
BIGNONIACEAE (Bignonia Family)			
Spathodea campanulata P. Beauv.	African tulip	non-native	rare
EUPHORBIACEAE (Spurge Family)			
Euphorbia prostrata Aiton	prostrate spurge	non-native	rare
FABACEAE (Pea Family)			
Acacia confusa Merr.	Formosa koa	non-native	uncommon
Chamaecrista nictitans (L.) Moench	partridge pea	non-native	rare
Desmanthus pernambucanus (L.) Thellung	slender mimosa	non-native	rare
Desmodium incanum DC.	kaimi clover	non-native	uncommon
Desmodium triflorum (L.) DC.	three flowered beggar weed	non-native	rare
Indigofera suffruticosa Mill.	iniko	non-native	rare
Mimosa pudica L.	sensitive plant	non-native	rare
MALVACEAE (Mallow Family)			
Hibiscus x	hybrid hibiscus	non-native	rare
Sida rhombifolia L.	arrowleaf sida	non-native	rare
Sidastrum micranthum (St. Hil.) Fryx.	sand mallow	non-native	common
Triumfetta semitriloba Jacq.	Sacramento bur	non-native	rare
MORACEAE (Mulberry Family)			
Ficus microcarpus L.f.	Chinese banyan	non-native	rare
MYRTACEAE (Myrtle Family)			
Eucalyptus robusta Sm.	swamp mahogany	non-native	uncommon
Psidium cattleianum Sabine	strawberry guava	non-native	rare
Psidium guajava L.	common guava	non-native	uncommon
OXALIDACEAE (Wood Sorrel Family)			
Oxalis corniculata	ihi	Polynesian	rare
PHYTOLACCACEAE (Pokeweed Family)			
Phytolacca octandra L.	southern pokeberry	non-native	rare
PLANTAGINACEAE (Plantain Family)			
Plantago lanceolata L.	narrow-leaved plantain	non-native	rare
RUBIACEAE (Coffee Family)			
Spermacoce assurgens Ruiz & Pav.	buttonweed	non-native	rare

SCIENTIFIC NAME	COMMON NAME	STATUS	ABUNDANCE
RUTACEAE (Rue Family)			
Murraya paniculata (L.) W. Jack	mock orange	non-native	rare
SOLANACEAE (Nighshade Family)			
Solanum linnaeanum Hepper & P. Jaeger	apple-of-Sodom	non-native	rare
VERBENACEAE (Verbena Family)			
Citharexylum spinosum L.	fiddlewood	non-native	rare
Lantana camara L.	lantana	non-native	common
Stachytarpheta australis Modenke	ʻōwī	non-native	rare
Stachytarpheta jamaicensis (L.) Vahl	Jamaica vervain	non-native	rare
Verbena litoralis Kunth	ha'u 'ōwī	non-native	rare

REF-57

FAUNA SURVEY REPORT

SURVEY METHODS

A fauna survey was conducted in conjunction with the flora survey. All parts of the project area were covered. Observations were made with the assistance of binoculars. Notes were made of species, numbers and status as well as on tracks, scat and signs of feeding. An inventory was made of all of the animal species encountered.

In addition, an evening survey was conducted at two locations to observe crepuscular activities and calls, and to determine any occurrence of the Endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) in the project area.

MAMMALS

Sign of just two non-native mammal species was observed in the project area. Nomenclature and taxonomy follow Tomich (1986). Several axis deer (*Axis axis*) were seen and abundant sign were found throughout the area in the form of tracks, droppings and antler rubbings. Horses (*Equus caballus*) were also common in the pastures.

A special effort was made to look for evidence indicating the presence of ʻōpeʻapeʻa or Hawaiian hoary bat by conducting an evening survey at two locations within the project area. A bat detecting device (Batbox III D) was employed, set to frequency of 27,000 Hertz that these bats are known to use when echolocating for flying insects. No bats were detected with the use of this device.

Other non-native mammals likely to frequent this area include rats (*Rattus* spp.), mice (*Mus domesticus*), feral cats (*Felis catus*) and occasionally domestic dogs (*Canis familiaris*).

BIRDS

Birdlife was moderate in both species diversity and in total numbers seen. Twelve species were observed during two site visits. Nomenclature and Taxonomy follow American Ornithologists' Union (2019). Most common were the common myna (*Acridotheres tristis*) and the zebra dove (*Geopelia striata*). Less common were the house finch (*Carpodacus mexicanus*), gray francolin (*Francolinus pondicerianus*), spotted dove (*Streptopelia chinensis*), northern cardinal (*Cardinalis cardinalis*), Japanese bush warbler (*Cettia diphone*) and the kōlea or Pacific golden-plover (*Pluvialis fulva*). Four other species were rare of occurrence.

Two indigenous, native birds were recorded during the survey, the kōlea which was uncommon, and the ʻakekeke or ruddy turnstone (*Arenaria interpres*) which was rare. Both of these are migratory species that were molting in preparation for their imminent departure to their arctic breeding grounds.

A few other species that might occur in this habitat include the wild turkey (*Meleagris gallopavo*), Erckel's francolin (*Pternistis erckelii*) and nutmeg mannikin (*Lonchura punctulata*).

REPTILES

Just one non-native lizard, the common garden skink (*Lampropholis delicata*) was observed in ground leaf litter.

MOLLUSKS

One non-native mollusk, the giant African snail (Achatina fulica) was rare.

INSECTS

Insect life was modest in diversity but rather sparse in total numbers. Eleven species were recorded in six insect Orders. Nomenclature and taxonomy follow Nishida et al (1992). Just one species was common, the monarch butterfly (*Danaus plexippus*), which was seen throughout the project area. Three other species were uncommon, the honeybee (*Apis mellifera*), dung fly (*Musca sorbens*) and long-tailed blue butterfly (*Lampides boeticus*). Seven other species were of rare occurrence.

One insect species was native, the indigenous globe skimmer dragonfly (*Pantala flavescens*) which is common throughout Hawaii.

DISCUSSION AND RECOMMENDATIONS

The fauna species identified within the project area are mostly non-native organisms that have been purposefully or accidentally introduced to Hawaii since western contact. Two bird species and one insect species, however, were indigenous in Hawaii and are addressed here.

<u>Kōlea or Pacific golden-plover and ʻakekeke or ruddy turnstone</u>

These two birds are migratory species that over-winter in Hawaii between September and May but then fly to the arctic where they breed and raise their young through the summer months. Both species show up here in large numbers every year. Neither species is Threatened or Endangered so they don't carry these heightened protections and are not of conservation concern at present.

<u>Globe skimmer dragonfly</u>

The globe skimmer is widespread and common in Hawaii in a variety of habitats. It is also known throughout the tropics and subtropics nearly worldwide. While indigenous in Hawaii, it carries no federal protections and is of no special conservation concern.

<u>Hawaiian Bats</u>

No endangered Hawaiian bats were detected in the project area at two sampling points during the evening survey. These bats are rare on Lānaʻi but they are highly mobile and wide-ranging, and could show up occasionally. The USFWS has guidelines to ensure that these bats are not harmed during their breeding and pupping season should they be detected.

REF-58

'Ua'u and 'A'o

The Endangered 'ua'u or Hawaiian petrel (*Pterodroma sandwichensis*) and the Threatened 'a'o of Newell's shearwater (*Puffinus newelli*), while not nesting in the project area, do fly over it during dusk to access their burrows high in the mountains and again at dawn to head out to sea. Young birds taking their first fledging flights are inexperienced fliers. They often are disoriented by bright lights and crash into light structures where they become vulnerable to injury and predators. All outdoor lighting on the Koele resort should be shielded so that the light is not visible from above. This is a requirement of the Maui County building code. Further guidance may be provided by the USFWS.

Taking into considerations the above comments and recommendations, the proposed project is not expected to have any significant negative impacts on native fauna in this part of Lāna'i.

ANIMAL SPECIES LIST

Following is a checklist of the animal species inventoried during the field work. Animal species are arranged in descending abundance within five groups: Mammals, Birds, Reptiles, Insects and Mollusks. For each species the following information is provided:

1. Common name
2. Scientific name
3. Bio-geographical status. The following symbols are used:

   endemic = native only to Hawaii; not naturally occurring anywhere else in the world.

   indigenous = native to the Hawaiian Islands and also to one or more other geographic area(s).

   migratory = bird species that spend the fall and winter months in Hawaii and the spring and summer months breeding in the arctic.

   non-native = all those animals brought to Hawaii intentionally or accidentally after western contact.

4. Abundance of each species within the project area:

   abundant = many flocks or individuals seen throughout the area at all times of day.

   common = a few flocks or well scattered individuals throughout the area.

   uncommon = only one flock or several individuals seen within the project area.

   rare = only one or two seen within the project area.

REF-59

SCIENTIFIC NAME	COMMON NAME	STATUS	ABUNDANCE
MAMMALS			
CERBIDAE (Deer Family)			
Axis axis Erxleben	axis deer	non-native	common
EQUIDAE (Horse Family)			
Equus caballus L.	domestic horse	non-native	common
BIRDS			
ALAUDIDAE (Lark Family)			
Alauda arvensis L.	sky lark	non-native	rare
CARDINALIDAE (Cardinal Family)			
Cardinalis cardinalis L.	northern cardinal	non-native	uncommon
CETTIIDAE (Warbler Family)			
Cettia diphone kittlitz	Chinese bush warbler	non-native	uncommon
CHARADRIIDAE (Plover Family)			
Pluvialis fulva Gmelin	Pacific golden-plover/kōlea	indigenous/migratory	uncommon
COLUMBIDAE (Dove Family)			
Geopelia striata L.	zebra dove	non-native	common
Streptopelia chinensis Scopoli	spotted dove	non-native	uncommon
FRINGILLIDAE (Finch Family)			
Carpodacus mexicanus Muller	house finch	non-native	uncommon
PHASIANIDAE (Pheasant Family)			
Francolinus pondicerianus Gmelin	gray francolin	non-native	uncommon
SCOLOPACIDAE (Sandpiper Family)			
Arenaria interpres L.	ruddy turnstone/'akekeke	indigenous/migratory	rare
STURNIDAE (Starling Family)			
Acridotheres tristis L.	common myna	non-native	common
THRAUPIDAE (Tanager Family)			
Paroaria coronata Miller	red-crested cardinal	non-native	rare
ZOSTEROPIDAE (White-eye Family)			
Zosterops japonicus Temmink & Schlegel	Japanese white-eye	non-native	rare

SCIENTIFIC NAME	COMMON NAME	STATUS	ABUNDANCE
INSECTS			
Order ARANAE - true spiders			
ARANEIDAE (Orb Weaver Family)			
Gasteracantha mammosa Koch	Asian spiny-backed spider	non-native	rare
SALTICIDAE (Jumping Spider Family)			
Hasarius adansoni Audouin	Adanson's house jumper	non-native	rare
Order COLEOPTERA -beetles			
COCCINELLIDAE (Lady Beetle Family)			
Coccinella septempunctata brucki Multsant	seven-spot lady beetle	non-native	rare
Order DIPTERA - flies			
CULICIDAE (Mosquito Family)			
Culex quinquefasciatus Say	southern house mosquito	non-native	rare
MUSCIDAE (Housefly Family)			
Musca sorbens Wiedemann	dung fly	non-native	uncommon
SYRPHIDAE (Hoverfly Family)			
Simosyrphus grandicornis Macquart	Australian hoverfly	non-native	rare
Order HYMENOPTERA - bees, wasps, ants			
APIDAE (Honeybee Family)			
Apis millfera L.	honeybee	non-native	uncommon
SPHECIDAE (Thread-waisted Wasp Family)			
Isodontia apicalis F. Smith	grass-carrying wasp	non-native	rare
Order LEPIDOPTERA - butterflies, moths			
LYCAENIDAE (Gossamer-winged Butterfly Family)			
Lampides boeticus L.	long-tailed blue butterfly	non-native	uncommon
NYMPHALIDAE (Brush-footed Butterfly Family)			
Danaus plexippus L.	monarch butterfly	non-native	common
Order ODONATA - dragonflies, damselflies			
LIBELLULIDAE (Skimmer Dragonfly Family)			
Pantala flavescens Fabricius	globe skimmer	indigenous	rare

REF-60

SCIENTIFIC NAME	COMMON NAME	STATUS	ABUNDANCE
REPTILES			
SCINCIDAE (Skink Family)			
Lampropholis delicata De Vis	garden skink	non-native	rare
MOLLUSKS			
ACHATINIDAE (Achatinid Snail Family)			
Achatina fulica Saussure	giant east African snail	non-native	rare

Figure 1. The Kō′ele P.D.U. Limits Revision site
TMK (2) 4-9-002:001 (10 acres) and TMK (2) 4-9-002:061 (58.3 acres)

REF-61

Literature Cited

American Ornithologists' Union. 2019. Check-list of North American Birds. 7th edition. American Ornithologists' Union. Washington D.C.

Armstrong, R.W. 1983. Atlas of Hawaii, Second Edition, University of Hawai'i Press.

Foote, D.E., E.L. Hill, S. Nakamura, F. Stephens. 1972. Soil Survey of the Islands of Kaua'i, Ō'ahu, Maui, Moloka'i and Lāna'i, State of Hawai'i. Department of Agriculture, Soil Conservation Service. Washington, D.C.

Nishida, G.M., G.A. Samuelson, J.S. Strazanac, K.S. Kami. 1992. Hawaiian Terrestrial Arthropod Checklist. Hawaiian Biological Survey. Honolulu.

Staples, G.W., D.R. Herbst. 2005. A Tropical Garden Flora. Bishop Museum Press. Honolulu.

Tomich, P.Q., 1986. Mammals in Hawaii. Bishop Museum Press, Honolulu.

U.S. Fish and Wildlife Service. 2019. Endangered and Threatened Wildlife and Plants. Listings and Occurrences for Hawaii. www.fws.gov/endangered

Wagner, W.L., D.R. Herbst, and S.H. Sohmer, 1999. Manual of the Flowering Plants of Hawaii. University of Hawaii Press and Bishop Museum Press, Honolulu.

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ARCHAEOLOGICAL LITERATURE REVIEW AND FIELD INSPECTION REPORT

APPENDIX

E

REF-63

4348 Wai`alae Ave #254•Honolulu Hawai`i 96816•T: (808) 392-1617•F: (888) 392-4941•E-Mail: admin@honuaconsulting.com

April 16, 2021

Re: ***Archaeological Literature Review and Field Inspection for Kōʻele Project District Amendment, Kamoku and Paomaʻi Ahupuaʻa, Lāhaina District, Lānaʻi Island***

Archaeological Literature Review TMKs: [2] 4-9-002:001 (portion) & :061 (portion), [2] 4-9-018:001, :002 (portion), :003 (portion), & :004, [2] 4-9-020: 001-008, :010-019, & :020 (portion) and [2] 4-9-021:001-008, & :010

Field Inspection TMKs: [2] 4-9-002:001 (portion), & :061 (portion)

To Whom It May Concern,

Honua Consulting, LLC, was originally contracted to complete a Literature Review and Field Inspection for the draft Environmental Assessment for the Kōʻele Project District Amendment. Since the completion of our study, Pūlama Lānaʻi has adjusted the uses and associated acres within the project district. This is reflected in Attachment A.

Additionally, an inconsistency between MCC Chapter 19.71.080 and Ordinance 1581, 2140, and 2852 was identified by Pūlama Lānaʻi while finalizing their application. A non-contiguous 14.5-acre parcel (TMK: [2] 4-9-002:061 (portion)) is zoned "Project District" in Ordinance 2852, however, no subdistrict designation is assigned to the 14.5 acres in Ordinance 2852. Furthermore, there is no record of the 14.5 acres in Ordinance 1581, Ordinance 2140, and MCC Chapter 19.71.080, where the subdistricts are identified by the number of acres.

Pūlama Lānaʻi has incorporated this 14.5-acre section (identified as "Stables & Tennis Courts" in CIZ Map 2615) into the Proposed Kōʻele Project District Map, it was not identified in earlier maps provided to our firm. This is reflected in Attachment A.

We attest that the results, findings, and recommendations of our technical study, *Archaeological Literature Review and Field Inspection for Kōʻele Project District Amendment, Kamoku and Paomaʻi Ahupuaʻa, Lāhaina District, Lānaʻi Island* do not change based on the updated map. We further believe the study, as written, provides sufficient information for SHPD to conduct the necessary HRS Chapter 6E-42 historic preservation review of the applicable Project District Application (PD II).

Please do not hesitate to contact us with any questions or concerns at (808) 392-1617 or watson@honuaconsulting.com.

Me ka pono,

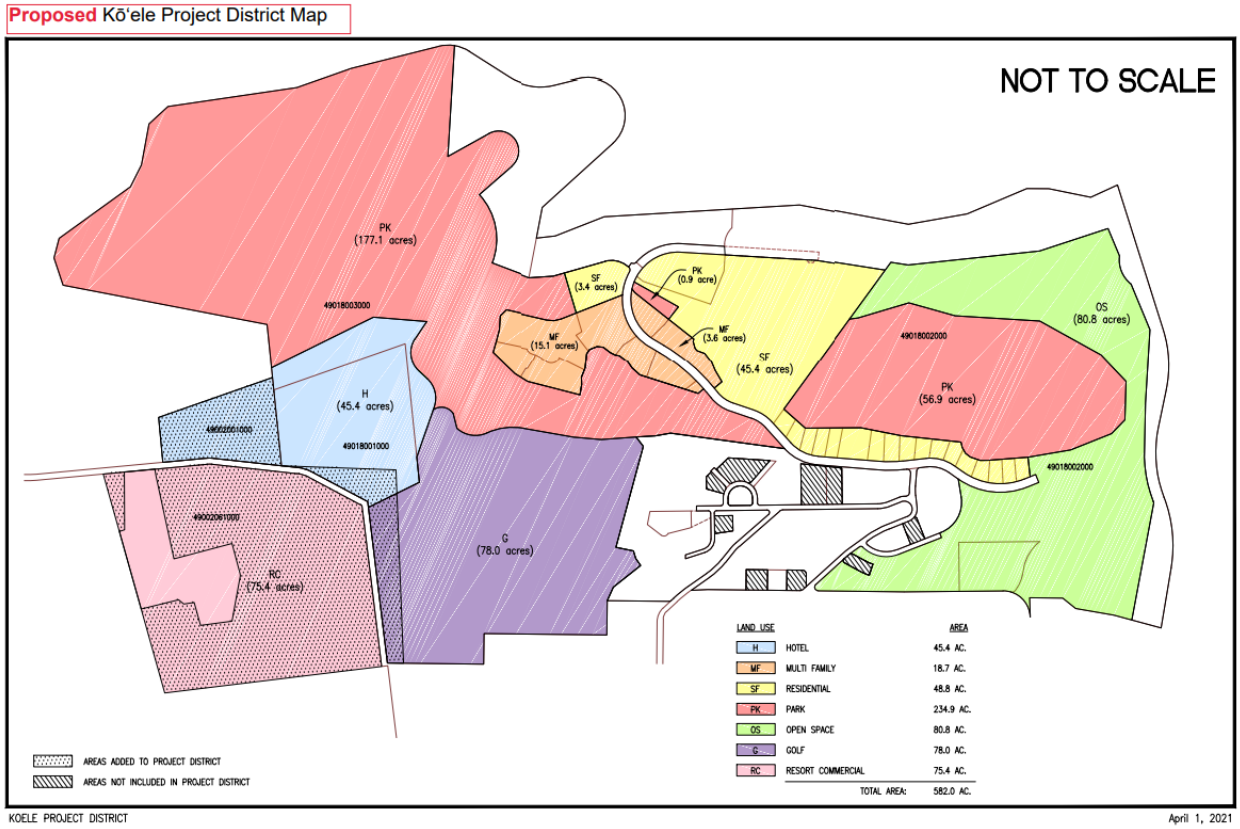
Trisha Kehaulani Watson, JD, PhD
Owner
Honua Consulting, LLC

Attachment

REF-65

Attachment A

Revised Proposed Kōʻele Project District Map



REF-66

Archaeological Literature Review and Field Inspection
for Kōʻele Project District Amendment
Kamoku and Paomaʻi Ahupuaʻa,
Lāhaina District, Lānaʻi Island,

Archaeological Literature Review:
TMKs: [2] 4-9-002:001 (portion) & :061 (portion),
[2] 4-9-018:001, :002 (portion), :003 (portion), & :004, [2] 4-9-020: 001-008,
:010-019, & :020 (portion) and [2] 4-9-021:001-008, & :010

Field Inspection:
[2] 4-9-002:001 (portion), & :061 (portion)

Prepared for

Pūlama Lānaʻi

Prepared by
Nathan J. DiVito, B.A.,
Kepā Maly,
Rosanna M. R. Thurman, M.A., and
Trisha Kēhaulani Watson, J.D., Ph.D.

HONUA CONSULTING
Honolulu, Hawaiʻi
August 2020

Management Summary

Pūlama Lānaʻi is proposing to make amendments to the existing Kōʻele Project District. The purpose and intent of the Project District remain unchanged; its existing and continued purpose intends to provide for a flexible and creative approve to development at Kōʻele that is complementary and supportive of services offered in the adjoining Lānaʻi City.

By request of Pūlama Lānaʻi, this literature review and field inspection was completed for proposed additions to the Kōʻele Project District located at the Four Seasons Resort Lānaʻi at Kōʻele in Kamoku and Paomaʻi Ahupuaʻa, Lahaina District, Lānaʻi Island, TMK: [2] 4-9-002:061 (portion) and [2] 4-9-002:001 (portion). This project focuses on two adjacent parcels of land to be rezoned and totaling 66.7 acres, including a 57.2 acre property ("Parcel 1") and a 9.5-acre property ("Parcel 2"). Both properties are privately owned by Lānaʻi Resorts, LLC. The project area is the same as the areas to be rezoned, including the 57.2 acre (2,491,632 square feet [sq. ft.] or 231,480 square meters [sq. m.] parcel and the 9.5 acre (413,820 square feet [sq. ft.] or 38,445 square meters [sq. m,]) parcel. Parcel 1 is in preparation of a zone change from an Agricultural District to a Resort Commercial District and Parcel 2 is in preparation of a zone change from an Interim District to a Hotel District, similar to the adjoining hotel property to the south. Also included in this report is a literature review that provides a cultural resources inventory for the entire proposed 564-acre Kōʻele Project District. It should be noted that two additional areas in the proposed additions to the Kōʻele Project District, (a 3.1 acre area of TMK: [2] 4-9-018:001 (portion) and a 5.7 acre area of TMK: [2] 4-9-018:003 (portion)) are included in the literature review but are excluded from the field inspection, as the land has been significantly modified and is currently being used by the Four Seasons Resort Lānaʻi at Kōʻele as the hotel entrance and as a portion of the Cavendish Golf Course respectively.

This report will be submitted as part of a Phase 1 Application to the Maui County Department of Planning for development of land designated as a Project District on an adopted community plan by the landowner, Pūlama Lānaʻi. The application amends the Project District boundary as specified above. No approvals for built structures or activities that would include ground disturbance are being sought at this time. If in the future building entitlements or other agency approvals are sought for the property within the Project District, a separate HRS 6E review will be undertaken at that time and in conjunction with the future activity.

The purpose of this literature review, field inspection, and cultural resources inventory was to determine the land-use history of the area and to identify any potential artifacts, surface architecture, or cultural deposits present on the ground surface of Parcels 1 and 2 and to provide an inventory of cultural resources present in the proposed Kōʻele Project District. In reference to the entire proposed 564-acre Kōʻele Project District, approximately 14 archaeological studies have been conducted to support infrastructure and development projects associated with the Four Seasons Lodge at Kōʻele, the Kōʻele Golf Course, and various other recreational and residential properties. A total of 3 historic properties have been documented within the 564-acre Kōʻele Project District, including the Kōʻele Historic District (SIHP #50-40-98-1004), a scatter of historic ranch-era artifacts associated with the Gay Lālākoa Homestead (SIHP #50-40-98-1595), and secondarily deposited traditional Hawaiian artifacts on the ground surface (SIHP #50-40-98-1596).

REF-67

Historically, the two subject parcels were used for ranching activities and were later almost entirely under commercial pineapple cultivation. The types of sites typically found in the pineapple fields of the island of Lānaʻi include surface scatters of secondarily deposited traditional Hawaiian artifacts, bases of fire pits that have been truncated by the plow zone, and historic remnants of ranch and plantation-era infrastructure. These were the anticipated site types for this field inspection.

The 57.2 acre parcel (Parcel 1) had not been previously surveyed or studied. Therefore, the parcel did not contain any previously-recorded sites or features.

The 9.5 acre parcel (Parcel 2) is located within the previously-documented Kōʻele District, State Inventory of Historic Places (SIHP) #50-40-98-1004, the former location of the Lanai Ranch Headquarters (circa 1870s-1951), a group of historic ranch-era buildings and structures placed in and around the Four Seasons Resort Lānaʻi at Kōʻele, and associated subsurface deposits consisting of refuse pits and scatters, a charcoal and ash concentration, an imu pit, a possible cistern, and a drywell and cesspool dating to the 1970's. None of the former Ranch Headquarters buildings currently exist on the property, rather, all buildings that contribute to the significance of the site have been moved from their original locations. The district was originally recorded during the Statewide Inventory of Historic Places study conducted in 1974 (Hommon 1974, Wright 1974; Appendix C). Originally, SIHP # -1004 included four buildings (Structures A-D). Two additional structures (Features E-F) were subsumed into the site during an archaeological survey of the Koele Hotel (subsequently named the Four Seasons Resort at Kōʻele) (Kaschko 1986). Two of the houses of SIHP # -1004, recorded as Structures C and D, were moved into the eastern portion of Parcel 2 of the current project area in the late 1980's during the construction of the Four Seasons Resort.

Subsurface deposits associated with SIHP #-1004 were documented during subsequent excavations and monitoring for construction of the Four Seasons Lodge at Kōʻele.

An archaeological inventory survey (AIS) was previously conducted by T.S. Dye and Colleagues in 2017 for a 3.1 acre portion of the 9.5 acre parcel (Parcel 2) (Dye and Maly 2017b). Due to the negative results of the survey it was termed an archaeological assessment. The assessment consisted of a pedestrian survey and the excavation of four backhoe trenches in a single transect across the property. The backhoe trenches documented natural soils only. No historic properties, subsurface deposits, or cultural materials were encountered during the project. The AIS was accepted by the State Historic Preservation Division (SHPD) on July 26, 2017 (Log No. 2017.01361, Doc No. 1707MBF07; Appendix B).

The current field inspection of Parcel 1 included a 100% pedestrian survey of the entire 57.2 acre parcel. During the survey two potential historic properties were documented (Feature Honua 1 and 2) and four secondarily deposited traditional Hawaiian artifacts were collected from three separate locations. A truncated fire pit remnant (Feature Honua 1) containing native charcoalized plants (ʻilima [*Sida* sp.] and naio [*Myoporum sandwicense*]) was documented and designated as SIHP #50-40-98-1988. SIHP # -1988 was recorded in the north central portion of Parcel 1. In accordance with HAR 13-284-6, the fire pit was assessed as having integrity of location and significance under Criterion d (have yielded data important to Hawaiian history). Two remnant sections of a plantation-era pineapple road with an associated earthen ditch (Feature Honua 2) were also documented. The plantation-era pineapple road and earthen ditch remnants are typical features of the pineapple fields of the island, yet these sections were heavily eroded, partially in-filled, and

had modern modifications. Therefore, the two road and ditch remnants were assessed as not having integrity or significance and were not assigned a site number.

The field inspection of Parcel 2 included a 100% pedestrian survey of 3.25 acres of the larger 9.5 acre parcel. The portion of the property previously surveyed by Dye and Maly (2017b) was omitted from the current survey area as it was located within an active staging and construction area of the Four Seasons Resort Lānaʻi at Kōʻele. During the surface survey, three potential historic properties were documented in the northeastern corner of Parcel 2, including a historic semi-circular rock wall planter (Feature Honua 3), a historic to modern scatter of rounded basalt cobble imu stones (Feature Honua 4), and a low plantation-era mortar and cobble foundation designated as SIHP #50-40-98-1989 (Feature Honua 5). Features Honua 3 and 4 were assessed as not retaining integrity or significance. SIHP # -1989 (Feature Honua 5) appears to be largely buried by soil, therefore, it is unknown whether the foundation is intact within its original location or if it may yield valuable data. The surface survey within Parcel 2 also documented the presence of two previously-identified historic ranch-era buildings, Structures C and D, of the Kōʻele District (SIHP # -1004). An assessment of the integrity and significance of the two buildings are beyond the scope of this study. The assessment of these structures must be conducted by a qualified architectural historian.

Due to the presence of an intact traditional Hawaiian fire pit remnant (SIHP # -1988) and secondarily-deposited traditional Hawaiian artifacts, plantation-era infrastructural remnants and a foundation (SIHP # -1989), and ranching-era buildings (Structures C and D of SIHP # -1004), it is likely that future construction activities may disturb additional traditional and/or historic sub-surface deposits and artifacts. Potential deposits that could be encountered include, but are not limited to, additional fire pit remnants, traditional human burials, animal burials, historic trash pits, and/or buried ranching and plantation-era infrastructure. Therefore, archaeological monitoring is recommended for future construction activities within Parcel 1 and Parcel 2. If construction activities are proposed for Parcel 2 then it is further recommended that prior to start of construction, Structures C and D of the Kōʻele District (SIHP # -1004) be assessed by a qualified architectural historian in coordination with the SHPD. Furthermore, it is recommended that SIHP # -1989 (foundation) be further documented and assessed for integrity and significance during archaeological monitoring.

Fieldwork for this project was performed under the archaeological permit number 19-22 issued to Honua Consulting by the SHPD, in accordance with Hawaiʻi Administrative Rules (HAR) Chapter 13-282. This study is not an archaeological inventory survey (AIS), however, it was written using standards outlined within HAR 13-276 for archaeological inventory surveys and is intended to assist with historic preservation efforts.

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Introduction

1.1 Project Background

Pūlama Lānaʻi is proposing to make amendments to the existing Kōʻele Project District. The purpose and intent of the Project District remain unchanged; its existing and continued purpose intends to provide for a flexible and creative approve to development at Kōʻele that is complementary and supportive of services offered in the adjoining Lānaʻi City.

By request of Pūlama Lānaʻi, this literature review and field inspection was completed for proposed additions to the Kōʻele Project District located at the Four Seasons Resort Lānaʻi at Kōʻele in Kamoku and Paomaʻi Ahupuaʻa, Lahaina District, Lānaʻi Island, TMK: [2] 4-9-002:061 (portion) and [2] 4-9-002:001 (portion). This project focuses on two adjacent parcels of land to be rezoned and totaling 66.7 acres, including a 57.2 acre property ("Parcel 1") and a 9.5-acre property ("Parcel 2"). Both properties are privately owned by Lānaʻi Resorts, LLC. The project area is the same as the areas to be rezoned, including the 57.2 acre (2,491,632 square feet [sq. ft.] or 231,480 square meters [sq. m.] parcel and the 9.5 acre (413,820 square feet [sq. ft.] or 38,445 square meters [sq. m,]) parcel. Parcel 1 is in preparation of a zone change from an Agricultural District to a Resort Commercial District and Parcel 2 is in preparation of a zone change from an Interim District to a Hotel District, similar to the adjoining hotel property to the south. Also included in this report is a literature review that provides a cultural resources inventory for the entire proposed 564-acre Kōʻele Project District. It should be noted that two additional areas in the proposed additions to the Kōʻele Project District, (a 3.1 acre area of TMK: [2] 4-9-018:001 (portion) and a 5.7 acre area of TMK: [2] 4-9-018:003 (portion)) are included in the literature review but are excluded from the field inspection, as the land has been significantly modified and is currently being used by the Four Seasons Resort Lānaʻi at Kōʻele as the hotel entrance and as a portion of the Cavendish Golf Course respectively. A U.S. Geological Survey (USGS) map, aerial photograph, and Tax Map Key (TMK) show the location of Parcels 1 and 2 (Figure 1 through Figure 3). An overview map of the proposed Kōʻele Project District showing the areas included in the literature review (blue), the two parcels surveyed (red), and the two parcels that were excluded from the field inspection (yellow) is included as Figure 4.

This report will be submitted as part of a Phase 1 Application to the Maui County Department of Planning for development of land designated as a Project District on an adopted community plan by the landowner, Pūlama Lānaʻi. The application amends the Project District boundary as specified above. No approvals for built structures or activities that would include ground disturbance are being sought at this time. If in the future building entitlements or other agency approvals are sought for the property within the Project District, a separate HRS 6E review will be undertaken at that time and in conjunction with the future activity.

The purpose of this literature review, field inspection, and cultural resources inventory was to determine the land-use history of the area and to identify any potential artifacts, surface architecture, or cultural deposits present on the ground surface of Parcels 1 and 2 and to provide an inventory of cultural resources present in the proposed Kōʻele Project District. In reference to the entire proposed 564-acre Kōʻele Project District, approximately 14 archaeological studies have been conducted to support infrastructure and development projects associated with the Four Seasons Lodge at Kōʻele, the Kōʻele Golf Course, and various other recreational and residential

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properties. A total of 3 historic properties have been documented within the 564-acre Kōʻele Project District, including the Kōʻele Historic District (SIHP #50-40-98-1004), a scatter of historic ranch-era artifacts associated with the Gay Lālākoa Homestead (SIHP #50-40-98-1595), and secondarily deposited traditional Hawaiian artifacts on the ground surface (SIHP #50-40-98-1596).

The 57.2-acre parcel (Parcel 1) had not been previously surveyed or studied. Therefore, the parcel did not contain any previously-recorded sites or features.

The 9.5 acre parcel (Parcel 2) is located within the previously-documented Kōʻele District, State Inventory of Historic Places (SIHP) #50-40-98-1004, the former location of the Lanai Ranch Headquarters (circa 1910-1951) and a group of historic ranch-era buildings and structures placed in and around the Four Seasons Resort Lānaʻi at Kōʻele. All buildings that contribute to the significance of the site have been moved from their original locations and placed on the property at Kōʻele. The district was originally recorded during the Statewide Inventory of Historic Places study conducted in 1974 (Hommon 1974, Wright 1974). Originally, SIHP # -1004 included four buildings (Structures A-D). Two additional structures (Features E-F) were subsumed into the site during an archaeological survey of the Koele Hotel (subsequently named the Four Seasons Resort at Kōʻele) (Kaschko 1986). Two of the houses of SIHP # -1004, recorded as Structures C and D, were moved into the eastern portion of Parcel 2 of the current project area in the late 1980's during the construction of the Four Seasons Resort.

An archaeological inventory survey (AIS) was previously conducted by T.S. Dye and Colleagues in 2017 for a 3.1-acre portion of the 9.5 acre parcel (Parcel 2) (Dye and Maly 2017b). Due to the negative results of the survey it was termed an archaeological assessment. The assessment consisted of a pedestrian survey and the excavation of four backhoe trenches in a single transect across the property. The backhoe trenches documented natural soils only. No historic properties, subsurface deposits, or cultural materials were encountered during the project. The AIS was accepted by the State Historic Preservation Division (SHPD) on July 26, 2017 (Log No. 2017.01361, Doc No. 1707MBF07; Appendix B).

Fieldwork for the current project was performed under the archaeological permit number 19-22 issued to Honua Consulting by the SHPD, in accordance with Hawaiʻi Administrative Rules (HAR) Chapter 13-282. This study is not an AIS, however, it was written using standards outlined within HAR 13-276 for archaeological inventory surveys and is intended to assist with historic preservation efforts.

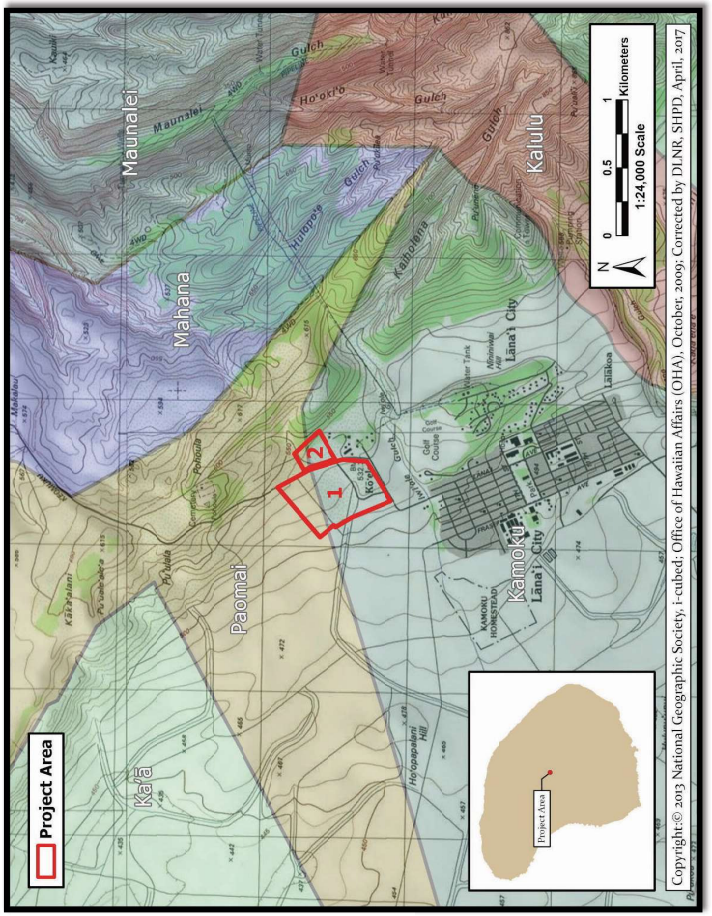

Figure 1. Portion of a 2013 Lānaʻi North U.S. Geological Survey (USGS) Topographic Quadrangle Map showing Parcels 1 and 2

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Figure 2. Aerial photo showing the location of Parcels 1 and 2 (Orthoimagery 2011)

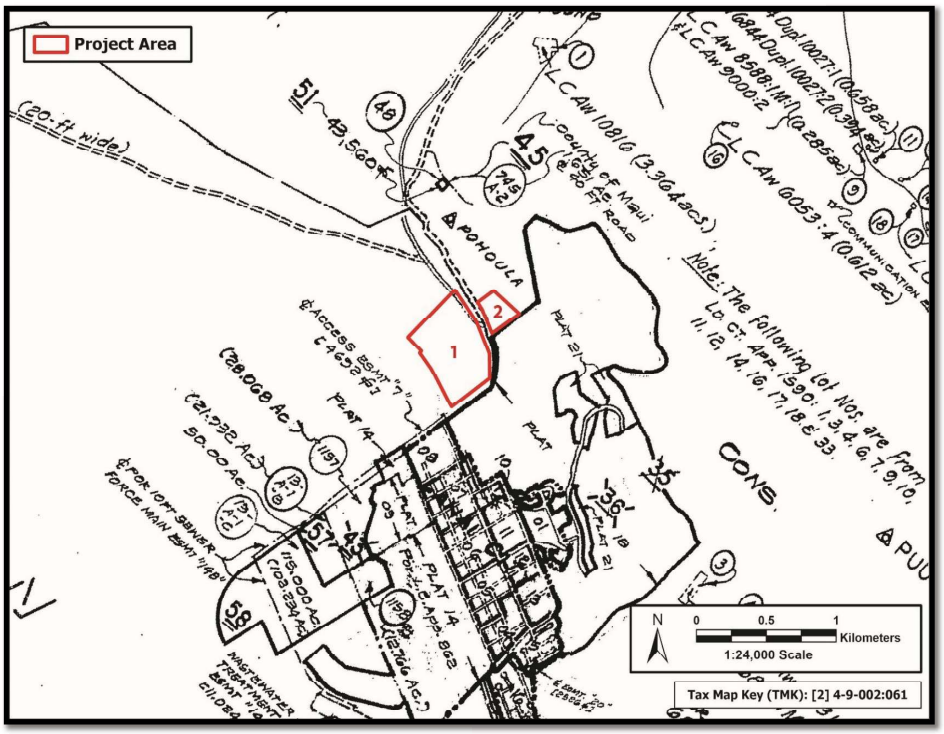

Figure 3. Portion of Tax Map Key (TMK): [2] 4-9-002 showing Parcels 1 and 2

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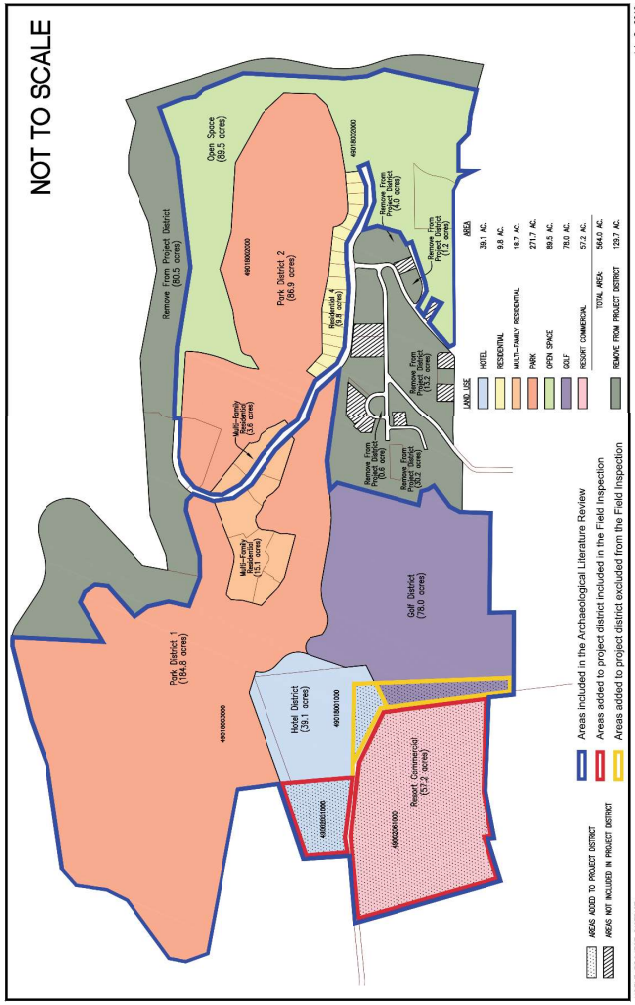

Figure 4. Overview map of the proposed Kō'ele Project District showing the areas included in the literature review (blue), the two parcels surveyed (Parcels 1 and 2) (red), and the two parcels that were excluded from the field inspection (yellow).

1.2 Environmental Setting

Lānaʻi is the sixth largest of the Hawaiian islands and was formed by a single shield volcano, the caldera of which, Pālāwai Basin, is located approximately 1.8 miles (3 km) to the south of the project area. The project area is located on the flat northwest rift zone in the center of Lānaʻi Island (Stearns 1940). They are located at approximately 1,800 ft. above sea level and between 5-7.5 miles (8.3-12 kilometers [km]) from the closest coastlines of the island. The project area is located within the ahupuaʻa (traditional land division) of Kamoku and Paomaʻi, with Kalulu Ahupuaʻa to the south and Kaʻā Ahupuaʻa to the north.

The climate of Lānaʻi is dry with minimal stream activity. Lānaʻi sits within the rain shadow of the larger, higher islands of Maui and Molokaʻi. The project area receives a mean annual rainfall ranging between 764 and 789.5 millimeters (mm), with wetter months November through March (Giambelluca et al. 2013). No perennial or intermittent streams are near the parcels.

Parcel 1

Several soil types have been documented within Parcel 1 and include Kalae silty clay, Koele silty clay loam, Lāhaina silty clay, and Waihuna clay. They are presented in Figure 5. The most common soil type is found within central north and south portions of Parcel 1 and are identified as Kalae silty clay on slopes ranging from 2-7% (KcB) and 7-15% (KcC). The Kalae soil series consists of well-drained soils on the uplands of the islands of Molokaʻi and Lānaʻi and developed in material weathered from basic igneous rock (Foote et al 1972:54-55). KcB soils have moderately rapid permeability, slow runoff, and slight erosion hazard. KcC soils have a slight to moderate erosion hazard and run-off is slow to medium. These soil types are typically used for pineapple cultivation and pasture. Natural vegetation on this soil includes guava (*Psidium guajava*), lantana (*Lantana camara*), hilo grass (*Paspalum conjugatum*), yellow foxtail (*Pennisetum glaucum*), Natal redtop (*Melinis repens*), and kikuyu grass (*Pennisetum clandestinum*).

The northwest and southwest portions of Parcel 1 are shown to contain Lāhaina silty clay on slopes ranging from 3 to 7% (LaB). The Lāhaina soil series consists of well-drained soils on the uplands of the islands of Lānaʻi, Maui, Molokaʻi, and Oʻahu and developed from material weathered from basic igneous rock (Foote et al. 1972:78-79). Permeability for this soil is moderate, runoff is slow, and the erosion hazard is slight. This soil type is typically used for sugarcane and pineapple cultivation with smaller acreages used for truck crops, pasture, homesites, and wildlife habitat. Natural vegetation on Lāhaina soils includes bermuda grass (*Cynodon dactylon*), feather finger grass (*Chloris virgata*), ʻilima (*Sida fallax*), kiawe (*Prosopis pallida*), lantana (*Lantana camara*), oi, and ʻuhaloa (*Waltheria americana*).

A narrow band of Waihuna clay ranging from 3 to 7% slope (WoB) is shown extending through the center of Parcel 1. The Waihuna soil series consists of well-drained and moderately well-drained soils on alluvial fans and in depressions on the islands of Lānaʻi and Molokaʻi and formed in old, fine-textured alluvium (Foote et al. 1972:129-130). The runoff for this soil is slow and the erosion hazard is slight. This soil type is typically used for pineapple cultivation. Natural vegetation on Waihuna soils includes Natal redtop (*Melinis repens*), lantana (*Lantana camara*), and guinea grass (*Megathyrsus maximus*).

Parcel 1 is located to the north of the Lānaʻi City Country Town Historic District (SIHP #50-40-98-1006) and is not within that designated boundary. Parcel 1 is bordered by Keōmuku Highway on the east and south and Kānepuʻu Highway cuts through the northern portion of the

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area. The area was previously used for pasture by the Lanai Ranch and for commercial pineapple cultivation by the Dole Hawaiian Pineapple Company. Currently, Parcel 1 is being utilized for pasture and the operations of the Lāna‘i Ranch Equestrian Center at Kō‘ele. The built environment of Parcel 1 includes a set of three tennis courts, the stables and associated landscaping, a riding arena, a graded area with rows of shipping containers, and numerous wooden and metal fences dividing the area into paddocks. The utilities are all underground and sewer manholes are present leading from the stables building to Lāna‘i City.

Parcel 2

Two soil types have been documented within Parcel 2 and include Koele silty clay loam and Waihuna clay. They are presented in Figure 5. The majority of Parcel 2 is shown to contain Kō‘ele silty clay loam (KrC) on 7 to 15 percent slopes (Foote et al. 1972:70) (Figure 5).The Kō‘ele soil series consists of well-drained soils on fans and in drainage ways on the islands of Lāna‘i, Maui, and Moloka‘i, formed in alluvium derived from basic igneous material (Foote et al. 1972:70). KrC soils have a moderate erosion hazard and run-off is medium. This soil type is typically used for pineapple cultivation, pasture, and wildlife habitat (Foote et al. 1972:70). Natural vegetation on this soil includes dallisgrass (*Paspalum dilatatum*), lantana (*Lantana camara)*, molasses grass (*Melinis minutiflora*), Natal redtop (*Melinis repens*) and pilipiliula (*Chrysopogon aciculatus*).

The southern portion of Parcel 2 contains Waihuna clay present on slopes ranging from 3 to 7 percent (WoB). The Waihuna soil series consists of well-drained and moderately well-drained soils on alluvial fans and in depressions on the islands of Lāna‘i and Moloka‘i and formed in old, fine-textured alluvium (Foote et al. 1972:129-130). The runoff for this soil is slow and the erosion hazard is slight. This soil type is typically used for pineapple cultivation, pasture, and wildlife habitat. Natural vegetation on this soil includes Natal redtop (*Melinis repens*), lantana (*Lantana camara*), and guinea grass (*Megathyrsus maximus*).

Parcel 2 is located to the north of the Lāna‘i City Country Town Historic District (SIHP #50-40-98-1006). Parcel 2 was previously used for ranching and subsequently used for commercial pineapple cultivation and is on the periphery of the main pineapple fields used by the Dole Hawaiian Pineapple Company. The majority of Parcel 2 is clear of vegetation and had manicured lawn grass and trees.

Currently, much of Parcel 2 has been graded and is being used as a construction staging area with construction portables, equipment, stockpiled rocks, and other materials observable in the area. The area is delineated by a temporary chain link fence. The only structures in Parcel 2 include two historic houses with an open garage in between. The two houses, components of the Kō‘ele District (SIHP # -1004) and identified as the Lanai Company Offices, were moved into the eastern portion of the survey area during the construction of the Four Seasons Resort in the late 1980’s. One of the houses is currently occupied by tenants and the other is the office for the Culture and Historic Preservation Division of Pūlama Lāna‘i. Dirt roads run along the eastern and northern portion of Parcel 2. The utilities to the houses in the area are subsurface.

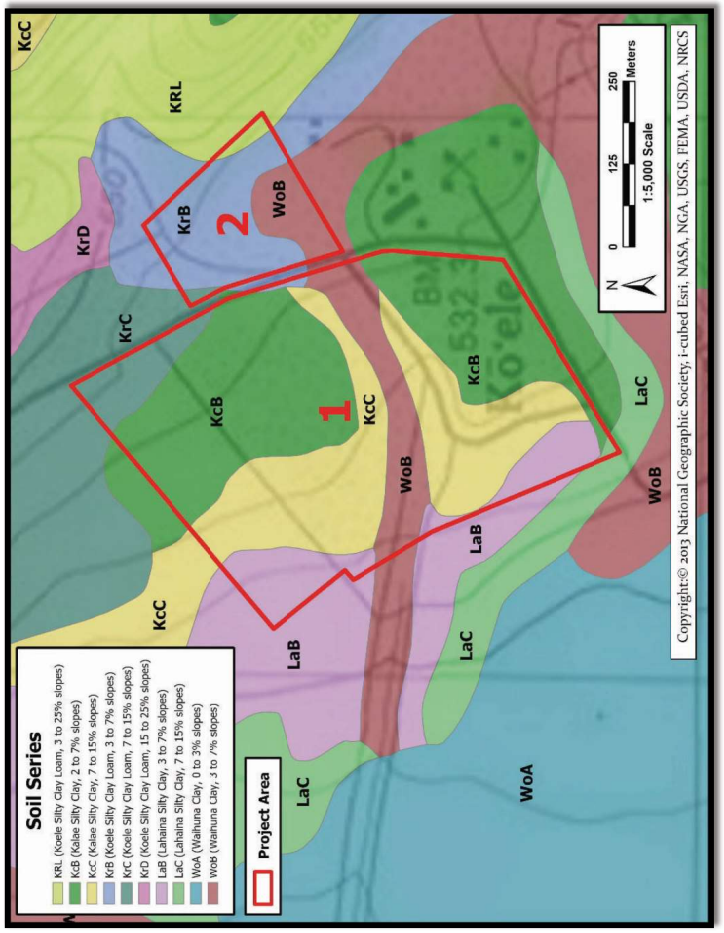

Figure 5. Portion of a 2013 Lāna‘i North USGS with Soil Series Overlay showing anticipated soils within Parcel 1

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Traditional and Historical Background

This section presents a general historic background for the island of Lānaʻi. It was compiled by Kepā Maly, a cultural historian and Hawaiian language expert, and edited and expanded upon by Thomas S. Dye Ph.D., a professional archaeologist with a career spanning over 50 years in Hawaiian and Pacific archaeology. The words, photos, tables, and figures presented below have been used with the permission of the authors. Footnotes are provided by the original authors.

This background is based on firsthand observation of cultural practices in the 1970s, interviews with older kamaʻāina (native-born individuals) at that time, and an exhaustive review of pertinent documentary sources, including records held by Kumu Pono Associates and the Lānaʻi Culture & Heritage Center. The historical narratives cited on the following pages provide readers with access to some of the most detailed and earliest accounts recorded from Lānaʻi. The narratives offer a glimpse into the history recorded from the experience and memory of native residents and eyewitness accounts of those who participated in the events which now make Lānaʻi's history. Some of these historical narratives have been translated from Hawaiian-language accounts for the first time, and other accounts rarely seen since their original date of composition. They are compiled here to provide a more detailed history of the land than has been previously available.

2.1 He Wahi Moʻolelo No Lānaʻi a Kaululāʻau: Some Traditions from Lānaʻi of Kaululāʻau

The earliest traditional lore of Lānaʻi describes the arrival of the gods Kāne, Kanaloa, and their younger god-siblings and companions to the southern shores of the island. Later accounts describe the visit of the goddess Pele and members of her family to the windward region of Lānaʻi. Subsequent narratives describe the settlement of Lānaʻi by evil spirits, and the difficulties that the early human settlers encountered in attempts to safely colonize the island. Another tradition relates that in the early 1400s AD, a young Maui chief by the name of Kaululāʻau traveled around Lānaʻi vanquishing the evil ghosts/spirits of the island, making it safe for people to live on Lānaʻi, and is the source of the island's name (Lānaʻi a Kaululāʻau).

By the early 1600s AD, all the islands of the Hawaiian group were settled sufficiently to develop an organized way to manage scarce resources. Each island was divided into political and subsistence subdivisions called ahupuaʻa, which generally ran from the ocean fishery fronting the land area to the mountains. Under the rule of Piʻilani, Lānaʻi was divided into 13 ahupuaʻa. Native tradition describes ahupuaʻa divisions as being marked by stone cairns (ahu) with a carved pig (puaʻa) image placed upon them, and these ancient divisions remain the primary land unit in the Hawaiian system of land management on Lānaʻi today.

The culture, beliefs, and practices of the Hawaiians mirrored the natural environment around them. They learned to live within the wealth and limitations of their surroundings. There is significant archaeological evidence on the island indicating that in the period before western contact, more people lived on the land sustainably—growing and catching all they needed—than currently live upon the island. Several important traditions pertaining to the settlement of Lānaʻi and the beliefs and practices of the ancient residents are commemorated at such places as Kaululāʻau, Kalaehī, Ke-ahi-a-Kawelo, Hālulu, Puʻupehe, Pōhaku ō, Kānepuʻu, Kaʻena iki, Nānāhoa, Haʻalelepaʻakai, and Puhi-o-Kaʻala.

Ancient Hawaiian villages, ceremonial features, dryland agricultural fields, fishponds, and a wide range of cultural sites dot the shoreline of Lānaʻi at places like Keone, Kaumālapaʻu, Kaunolū, Māmaki, Kapalaoa, Huawai, Kapihaʻā, Hulopoʻe, Mānele, Kamaiki, Naha, Kahemanō, Lōpā, Kahalepalaoa, Kaheʻa, Keōmoku, Kaʻa, Hauola, Maunalei (including a wetland taro field system in the valley), Kahōkūnui, Kaiolohia, Kahāʻulehale, Kahue, Lapaiki, Awalua, Polihua, and Kaʻena.

In the uplands, localities at Hoʻopulupuluamoa and Malulani, Kōʻele and Kihamāniania, Kalulu uka, Kaunolū uka, Keālia Kapu, Keālia Aupuni, and Pālāwai were also locations of significant traditional settlements and agricultural endeavors. We also know that over the generations, families with permanent residences in the Lāhaina District of Maui frequented Lānaʻi to take advantage of its rich fisheries.

In the period leading up to 1800 AD, there was a decline in the native population, and in the capacity of Lānaʻi to produce agricultural resources. This was, in part, due to disputes between the rulers of Maui and Hawaiʻi which overflowed onto Lānaʻi in the mid- to late-eighteenth century. In the late-eighteenth century and early-nineteenth century, foreign diseases and influences spread across the islands, leading to a further decline in the population. By the 1840s, there were approximately 600 inhabitants residing on Lānaʻi. By the 1870s, the population hovered around 300 residents, and by the early 1890s, there were just 175 native residents.

2.1.1 Native Lore and Historical Accounts: The Gods Walked the Land—Early Settlement of Lānaʻi

Several traditions pertaining to the gods and people of ancient Lānaʻi were found in a review of Hawaiian-language newspapers. These accounts describe the island condition and the life and practices of Lānaʻi's ancient people. The narratives establish the bond between Lānaʻi and neighboring islands of the Hawaiian group and more distant Kahiki—the ancestral homeland of the gods—as Kāne, Kanaloa, Pele, and others of the god-family shaped the natural environment and lives of the people of the land. Coming into the historic period, readers find significant changes on the land and in the lives of the people of Lānaʻi. Selected accounts are related here that transition readers through the history of Lānaʻi and a native landscape to one of change under western settlement.

A Famine on Lānaʻi—an Ancient Prayer Offered by Pakeaulani to the God Kānepaʻina

This tradition tells of two ancient residents of Lānaʻi, a period of famine across the islands, and the death of the population. We learn the name of a god of one of the heiau (traditional place of worship) on Lānaʻi, Kānepaʻina. The word anela (Hawaiianized angel) is used by the writer in place of the traditional words ʻaumakua (family god) or akua (god). Also cited within this account is a pule (prayer) uttered by ancient residents of Lānaʻi.

No na Akua ka Wa Kahiko...

Eia mai he wahi moolelo no ka malama ana o kekahi anela paha, a mau anela paha, oia hoi

About the Gods of Ancient Times

Here is a little tradition pertaining to observances for a certain angel (guardian),

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he mau Kane paha. Penei ua wahi moolelo la. Aia ma Lanai ka noho ana o Kaimumahanahana, a me kana keiki o Pakeaulani, a he nui loa no na kanaka ma Lanai ia manawa; a hiki mai ke kau wi, pau aku la na kanaka i ka make a ka ai, a koe elua o Kaimumahanahana, a me Pakeaulani, kokoke make nae ka makuakane. O ka Pakeaulani hana; oia keia. Hele wale aku la no keia e eli wale aku no i kulina uala, a loaa ka uala liilii, (he au ia uala) kalua a moa, lawe aku la keia a he wahi heiau a ianei i hanaʻi kaumaha aku la, alaila, pule aku la, penei kahi hapa o ka pule.

Kini o ke akua
E ka lehu o ke akua
E ka pukui akua
E ka lalani akua
E kahuli, e kahele
E ka wahine e moe ana ke alo iluna
Eia ka ai au a Pakeaulani keiki a
Kaimumahanahana.

Pau ka pule, hoi keia a imi hou i ai no ke ahiahi, a moa ia ai lawe aku, i lawe aku ka hana, ua pau kela ai, kau keia ai, pule no hoi e like me mamua. I kekahi imu liilii ana a ianei, honi mai la kona makuakane i ke ala o ka uala! I mai la kela, "Auhea hoi kau uala e kuu keiki e aala mai nei?" Pane mai la kela, "He ai ia na kuu akua." Pane hou mai kona makuakane, "Aohe oʻu akua, a he akua ka hoi kou?" A hala ae la na la elima o kana hana ana pela, alaila, i ka po kamailio mai la kekahi anela o Kanepaina. I mai la, "Ea, a keia po e panipani aku oe i na pukapuka liilii o ko olua hale, a e noho malie mai kamailio pu me kou makuakane a pau ae la ka laua kamailio pu ana, a hele aku la ia, 'Owai kou hoa i kamailio mai la.' I aku la oia, 'O kuu akuahoi ia aʻu e malama nei.' Aole liuliu ma ia hope iho, haule mai ana ka ua he nui, ka ua no ia a ao ka po a po ua la nei, a ao ua po nei, malie iho la ka ua. I puka aku ka hana iwaho ua palaku ka Maia, angels, or perhaps men. The story is this. There was residing on Lānaʻi, Kaimumahanahana and his son, Pakeaulani, and there were many people living on Lānaʻi at that time. There came a time of famine, and all the people died, leaving only Kaimumahanahana and Pakeaulani, though the father was close to death. Here is what Pakeaulani did. He went and dug up some sweet potato runners and got a few small sweet potatoes (little potatoes growing on a vine), and baked them. He took these things to a heiau and did the following, he worshipped, made the offerings, and prayed. This is a portion of his prayer.

Forty thousand gods
Four hundred thousand gods
Assembly of gods
Alignment of gods
Those that change, those that move about
O women that lie face up
Here is your food, prepared by
Pakeaulani, son of Kaimumahanahana.

When he finished praying, he went again and sought out food for the evening. He cooked the food and took it, doing the same with all the food until it was done, and set there (at the temple), and he prayed as he had before. He prepared the food in a small imu [underground oven], and his father smelled the scent of the sweet potatoes! He said "Where are your sweet potatoes, that I smell, my son? He answered him, saying, "It is the food of my god." The father then answered, "I don't have a god, but you do?" Five days passed in his (Pakeaulani) doing this same thing, then on the fifth night, an angel, Kānepaʻina, spoke. He said, "Heed me, this night go close the very littlest of the holes in the house of you two, and stay calm, do not speak with your father." When they two were finished speaking, the angel departed. His father asked him "Who was the companion with whom you were speaking?" He answered, "My god whom I have been worshipping." Not long

ua moe ke Ko a ala mai, hele ke anakiu o ka uala a keke, ua hele ka Ape a hilala ka ha; o ke kalo hoi ua makaole kekahi kihapai, a o kekahi pumaia ka ha o ke kalo. Ke kalua iho la no ia o ka ai a moa, kaumaha e aku la keia I ke Akua oia nei, a pau hoi mai la laua nei ai ka uala, ke kalo, a ai no hoi ka mai a maona; o ka laha hou no ia o kanaka o Hawaii nei, ma Lanai wale no. Oia iho la kahi moolelo o ka malama ana o kekahi o na Kane ia mau kanaka…"

Owau no me ka mahalo. John Puniwai.

Nupepa Kuokoa, November 8, 1862.
Translated by Maly.

afterwards, a great rain fell. It rained night and day, and through several nights and days until there was calm, then the rains fell lightly. Looking outside to see what had transpired, there was seen ripe maiʻa (bananas), kō (sugar cane) lying upon the ground, ʻuala (sweet potatoes) spread all about, ape (mountain taro) with long stalks leaning to the side; kalo (taros) which filled the gardens, banana stalks were used as the channels (to irrigate) for the taro. He then cooked the food, and made an offering to his God. When finished, they two ate the sweet potatoes, taro, and bananas until filled. This is how Hawaiians came to once again be spread across Hawaii, only from Lānaʻi. So this is one tradition of how the Kāne (gods), was worshipped by these men…

I am with appreciation, John Puniwai.

He Moʻolelo no Kaululāʻau: A Tradition of Kaululāʻau

One of the best known traditional accounts of Lānaʻi dates from the early-fifteenth century and associates the island with the ruling chiefs of Maui. In these narratives, a young chief, Kaululāʻau, was born to Kakaʻalaneo and Kanikaniāʻula. Kakaʻalaneo's elder brother was Kākaʻe, and Fornander reported that these royal brothers jointly ruled Maui and Lānaʻi (Fornander 1973 II:82-83). During Kākaʻe and Kakaʻalaneo's rule, and for many generations preceding it, anyone who attempted to live on Lānaʻi experienced great difficulties, as the island was inhabited by evil ghosts/spirits ruled by their king, Pahulu.

While there are numerous narratives that describe how Kaululāʻau came to free Lānaʻi from the rule of Pahulu, thus making it safe for people to inhabit the island (Beckwith 1940 and Emory 1969), there are two major versions of this tradition with variations on the events. The best known is the version published by King David Kalākaua in 1888, but the most detailed version was published in the Hawaiian language in 1863 in association with another tradition from Maui, "Ka Moolelo o Eleio".

King Kalākaua's version provides a significant description of Lānaʻi and the ability of its people to sustain themselves by working the land and fishing the sea around the island. Through the encouragement of his friend and advisor Walter Murray Gibson[1] the king compiled the traditions found within *The Legends and Myths of Hawaii* (Kalākaua 1990) and described Lānaʻi as being

[1] Walter Murray Gibson settled on Lānaʻi by early 1862, and came to control most of the land on the island through fee-simple and leasehold title. A friend of many chiefs, some of whom who had been on Lānaʻi with Kamehameha I, Gibson recorded a number of traditions from the island, and is generally attributed with the Lānaʻi narratives cited by King Kalākaua.

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richly supplied with food crops, natural resources, and fisheries that, but for the presence of the evil beings, made it a desirable place to live.

Excerpts of Kalākaua's version follow, entitled "The Sacred Spear-Point" and "Kelea, the Surf Rider of Maui." These are followed by an excerpt of the Hawaiian-language version of Kaululā'au's legend entitled "Ka Moolelo o Eleio."

"The Sacred Spear-Point" and "Kelea, the Surf Rider of Maui"

> Kaululaau was one of the sons of Kakaalaneo, brother of, and joint ruler with, Kakae in the government of Maui . . . The court of the brothers was at Lele (now Lāhaina), and was one of the most distinguished in the [island] group.
>
> The mother of Kaululaau was Kanikaniaula, of the family of Kamauaua, king of Molokai, through his son Haili, who was the brother or half-brother of Keoloewa and Kaupeepee . . .
>
> Kaululaau was probably born somewhere between the years 1390 and 1400. He had a half-sister, whose name was Wao, and a half-brother, Kaihiwalua…[Kaululaau] had a congenial following of companions and retainers, who assisted him in his schemes of mischief…He would send canoes adrift, open the gates of fish-ponds, remove the supports of houses, and paint swine black to deceive the sacrificial priests. He devised an instrument to imitate the death-warning notes of the alae [mudhen bird], and frightened people by sounding it near their doors; and to others he caused information to be conveyed that they were being prayed to death.
>
> Notwithstanding these misdemeanors, Kaululaau was popular with the people, since the chiefs or members of the royal household were usually the victims of his mischievous freaks. He was encouraged in his disposition to qualify himself for the priesthood, under the instruction of the eminent high-priest and prophet, Waolani, and had made substantial advances in the calling when he was banished to the island of Lanai by his royal father for an offence which could neither be overlooked nor forgiven.
>
> At that time Lanai was infested with a number of gnomes, monsters and evil spirits, among them the gigantic moo [lizard], Mooaleo. They ravaged fields, uprooted cocoanut-trees, destroyed the walls of fish-ponds, and otherwise frightened and discomfited the inhabitants of the island. That his residence there might be made endurable, Kaululaau was instructed by the kaulas [prophets] and sorcerers of the court in many charms, spells, prayers and incantations with which to resist the powers of the supernatural monsters. When informed of these exorcising agencies by Kaululaau, his friend, the venerable Waolani, told him that they would avail him nothing against the more powerful and malignant of the demons of Lanai.
>
> Disheartened at the declaration, Kaululaau was about to leave the heiau to embark for Lanai, when Waolani, after some hesitation, stayed his departure, and, entering the inner temple, soon returned with a small roll of kapa [bark cloth] in his hand. Slowly uncording and removing many folds of cloth, an ivory spearpoint a span in length was finally brought to view. Holding it before the prince, he said:

> Take this. It will serve you in any way you may require. Its powers are greater than those of any god inhabiting the earth. It has been dipped in the waters of Po, and many generations ago was left by Lono upon one of his altars for the protection of a temple menaced by a mighty fish-god who found a retreat beneath it in a great cavern connected with the sea. Draw a line with it and nothing can pass the mark. Affix it to a spear and throw it, and it will reach the object, no matter how far distant. Much more it will do, but let what I have said suffice.

The prince eagerly reached to possess the treasure, but the priest withdrew it and continued:

I give it to you on condition that it pass from you to no other hands than mine, and that if I am no longer living when you return to Maui—as you some day will—you will secretly deposit it with my bones. Swear to this in the name of Lono.

Kaululaau solemnly pronounced the required oath. The priest then handed him the talisman, wrapped in the kapa from which it had been taken, and he left the temple, and immediately embarked with a number of his attendants for Lanai.

Reaching Lanai, he established his household on the south side of the island. Learning his name and rank, the people treated him with great respect—for Lanai was then a dependency of Maui—assisted in the construction of the houses necessary for his accommodation, and provided him with fish, poi, fruits and potatoes in great abundance. In return for this devotion he set about ridding the island of the supernatural pests with which it had been for years afflicted.

In the legend of "Kelea, the Surf-rider of Maui," will be found some references to the battles of Kaululaau with the evil spirits and monsters of Lanai. His most stubborn conflict was with the gnome god Mooaleo. He imprisoned the demon within the earth by drawing a line around him with the sacred spear-point, and subsequently released and drove him into the sea.

More than a year was spent by Kaululaau in quieting and expelling from the island the malicious monsters that troubled it, but he succeeded in the end in completely relieving the people from their vexatious visitations. This added immeasurably to his popularity, and the choicest of the products of land and sea were laid at his feet.

His triumph over the demons of Lanai was soon known on the other islands of the group, and when it reached the ears of Kakaalaneo he dispatched a messenger to his son, offering his forgiveness and recalling him from exile. The service he had rendered was important, and his royal father was anxious to recognize it by restoring him to favor.

But Kaululaau showed no haste in availing himself of his father's magnanimity. Far from the restraints of the court, he had become attached to the independent life he had found in exile, and could think of no comforts or enjoyments unattainable on Lanai. The women there were as handsome as elsewhere, the bananas were as sweet, the cocoanuts were as large, the awa was as stimulating, and the fisheries

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were as varied and abundant in product. He had congenial companionship, and bands of musicians and dancers at his call. The best of the earth and the love of the people were his, and the apapani [ʻapapane, Hawaiian honey creeper bird] sang in the grove that shaded his door. What more could he ask, what more expect should he return to Maui? His exile had ceased to be a punishment, and his father's message of recall was scarcely deemed a favor.

However, Kaululaau returned a respectful answer by his father's messenger, thanking Kakaalaneo for his clemency, and announcing that he would return to Maui sometime in the near future, after having visited some of the other islands of the group; and three months later he began to prepare for a trip to Hawaii. He procured a large double canoe, which he painted a royal yellow, and had fabricated a number of cloaks and capes of the feathers of the oo and mamo. At the prow of his canoe he mounted a carved image of Lono, and at the top of one of the masts a place was reserved for the proud tabu standard of an aha alii [chiefly bloodline]. This done, with a proper retinue he set sail for Hawaii. (Kalākaua 1990:209–213)

The tradition continues by describing events in which Kaululāʻau participated in battles with various demons similar to those on Lānaʻi. His journey took him to the islands of Hawaiʻi, Molokaʻi, and Oʻahu prior to his return to Maui.

Upon returning to Maui, Kaululāʻau was welcomed home by his father, and learned that Waolani, his priestly instructor and friend, had died. Recalling the promise made to Waolani, Kaululāʻau secretly hid the sacred spear-point of Lono with the bones of Waolani. Kaululāʻau married Laiea-a-Ewa, a high chiefess of Oʻahu, and together they lived out their lives, residing at Kauaʻula in Lāhaina and parented six children (Kalākaua 1990:225).

In the tradition of "Kelea, the Surf-Rider of Maui" (Kalākaua 1990:229–246), mention is made again of Kaululāʻau and his adventures on Lānaʻi. The account is centered on Kelea, the daughter of Kahekili I, elder cousin of Kaululāʻau. It is reported that when Kahekili I ascended to the throne (ca. 1415), he "became king of Maui and Lanai; for during that period the latter island was under the protection of the mois [kings] of Maui, while Molokai still maintained its independence" (Kalākaua 1990:229).

King Kalākaua described the introduction of ʻulu (breadfruit) to Lele, now known as Lāhaina, and Kaululāʻau's banishment to Lānaʻi:

It was Kakaalaneo who introduced the bread-fruit there from Hawaii . . . For some disrespect shown to his royal brother [Kakae], whose mental weakness doubtless subjected him to unkind remarks, he banished his son Kaululaau to Lanai, which island, traditions avers, was at that time infested by powerful and malignant spirits. They killed pigs and fowls, uprooted cocoanut-trees and blighted *taro* patches, and a gigantic and mischievous gnome amused himself by gliding like a huge mole under the huts of his victims and almost upsetting them.

The priests tried in vain to quiet these malicious spirits. No sooner were they exorcised away from one locality that they appeared in another, and if they gave the *taro* patches a rest it was only to tear the unripe bananas from their stems, or rend the walls and embankments of artificial ponds, that their stores of fishes might escape to the sea. Aware of these grievances, Kaululaau took with him to Lanai a

talisman of rare powers. It was the gift of his friend, the high-priest of his father, and consisted of a spear-point that had been dipped in the waters of Po, the land of death, and many generations before left by Lono on one of his altars.

Crowning a long spear with this sacred point, Kaululaau attacked the disturbing spirits, and in a short time succeeded either in bringing them to submission or driving them from the island. The gnome Mooaleo was the most difficult to vanquish. It avoided the prince, and for some time managed to keep beyond the influence of the charmed spear-point; but the monster was finally caught within the boundaries of a circular line scratched with the talisman upon the surface of the earth beneath which it was burrowing, and thereby brought to terms. It could not pass the line no matter how far below the surface it essayed to do so. Heaving the earth in its strength and wrath, it chafed against the charmed restraint that held it captive, and finally plunged downward within the vertical walls of its prison. But there was no path of escape in that direction. It soon encountered a lake of fire, and was compelled to return to the surface, where it humbled itself before the prince, and promised, if liberated, to quit the island for ever. Kaululaau obliterated sixty paces of the line of imprisonment, to enable Mooaleo to pass to the sea, into which the hideous being plunged and disappeared, never to be seen again on Lanai. (Kalākaua 1990:229–230)

Ka Moolelo o Eleio (The Tradition of Eleio)

The tradition of Eleio is set in the time of Kakaʻalaneo's rule over Maui, Lānaʻi, Molokaʻi, and Kahoʻolawe (ca. 1400), and was published by W. N. Pualewa, in the Hawaiian-language newspaper *Kuokoa* in 1863. The account tells us that Eleio was a famous kūkini associated with the court of the king. He was noted for his ability to travel the circuit of the island, to fetch a choice fish from one district and bring it to the court in another district, keeping it alive. When it was learned that Kelekeleiokaʻula, Kakaʻalaneo's wife, was expecting, the king granted Eleio the privilege of naming the child. Eleio stated his desire, that if it was a boy, he should be named Kaululāʻau (The-forest-grove). When the child was born, it was indeed a boy, and he was named Kaululāʻau. As the child grew, his mysterious manner and mischievous nature created many problems for his parents and the people of Maui. Eventually, the youth was banished from Maui and sent to Lānaʻi to fend for himself. At that time in history, Lānaʻi was reportedly inhabited by hordes of *akua* under the rule of Pahulu. While on Lānaʻi, Kaululāʻau was accompanied by his own personal god, Lono. Together, the two traveled about Lānaʻi, tricking the ghosts, killing them, and setting the lands free from their dominion.[2]

In this version of the tradition, Kaululāʻau traveled around Lānaʻi. We are told that he has already killed many of Pahulu's minions, and that Pahulu then feigned friendship with Kaululāʻau, telling him that he would help him seek out the other *akua* who remained on the island. Pahulu's real objective was to round up the remaining *akua* to fight and kill Kaululāʻau. The party traveled around the island counterclockwise, leaving the Keōmuku region, passing through Kaʻena, Honopū, Kaumālapaʻu, Kaunolū, and Mānele. The excerpts below cover the lands of the southern coast of Lānaʻi between Kaunolū and Mānele.

[2] Nupepa Kuokoa, October 24 & 31, 1863

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Ka Moolelo o Eleio

A mamuli o keia olele ana a Pahulu; alaila, ua nee io aku no lakou a noho ma Honopu, aia ia wahi ma kahi e ane kokoke aku ana i ka pali o Kaholo, aka, o Kaumalapau nae kahi e pili pu ana me Kaholo.

A hiki lakou nei ma Honopu, a noho malaila i kekahi mau po, aole nae he akua oia wahi, no ka mea, ua kaapuni hele o Pahulu ia mau la a me ia mau po ma ia apana mai o a o, mai ka a uka, aole ona ha lawai iki me ke akua, nolaila, aole o lakou kuleana e noho hou ai malaila.

Nolaila, ua nee hou aku la lakou a noho ma Kaunolu, a malaila a noho loihi hou lakou ma ia wahi, no ka mea, ua ike o Pahulu he wahi akoakoa ia o ke akua.

Nolaila, olelo aku la o Pahulu ia Kaululaau, "E aho e noho kakou ianei, no ka mea, ua ike mai nei au, aia iluna pono o Kahilikalani ke akua kahi i nohoai. Eia nae ka mea hai aku ia oe e Kaululaau, e luku auanei oe i ka nui o ke akua apau; ao ke akua auanei e kapaiʻna la o Kanemakua, alaila, mai pepehi auanei oe iaia no ka mea, he hana nui kana. O kana hana, oia ke kamaaina mau o keia wahi, a nana no e malama i kela i-a o ke kai. Oia ke akua, no ka mea, ina oia e make, aole mea nana e kiai pono i keia lae akua. No ka mea, malama paha e pau io ana ke akua o keia aina ma keia hana au e hana nei, a e noho mai ana paha ka mea i like pu me kou ano aʻu e ike aku nei. Alaila, ua koe iho la no ke kumu e laka mai ai o ke akua, a ma ona la e hiki ai ke kaumaha aku, a e lilo o Kanemakua i aumakua lawaia no ia poe."

Alaila, ua maikai ia mea i ko Kaululaau manao. A noho lakou malaila, me ka hana aku i kana oihana mau o ka pepehi aku i ke akua oia wahi, a malaila hoi o Kaululaau i ao ai i ka paeaea ana i ke akua, e like me ka hana ana o na kanaka o Molokai i pae mai ai ma Kahulehale, a no ka lehulehu o na hana maalea i loaa ia Kaululaau mamuli o ke ao-ao ana mai

The Tradition of Eleio

Pahulu then flew on ahead, and they went on to stay at Honopū. This place is situated not too far away from the cliffs of Kaholo, though Kaumālapaʻu is there, adjoining Kaholo.

They arrived at Honopū, and stayed there several nights. Pahulu had traveled all about the place, from one side to the other of the land, and into the uplands, but he could find no akua in the district. Therefore, they had no reason to stay there for long.

Then they traveled once again, and stayed at Kaunolū. They remained at this place for quite a long time, because Pahulu knew that this was a place where the akua gathered.

Therefore Pahulu said to Kaululāʻau, "Let us stay here a while, for I see there atop Kāhilikalani, is the place where the akua reside. But this is what I have to tell you, Kaululāʻau, that you shall indeed destroy all the akua; but you should not kill the god called Kānemakua, for he has an important job here. His work, is that he is the native of this place, it is he who cares for the fish of the sea. He is the god, and if he should be killed, there shall be no other god who can watch over this godly point. So be careful that you do not destroy the akua of this land as you do your work. From what I have seen, he is perhaps like you in what he does. So let him remain free, that he may be worshipped. Kānemakua will become the god of the fishermen of this place."

Kaululāʻau thought this was a good idea. So they dwelt there, and he did his work, killing all the akua of this place. Kaululāʻau then instructed them in praying to the gods, as he had done with the men of Molokaʻi, who had washed ashore at Kahāʻulehale. So it was that the multitudes do this, as Kaululāʻau had been

a kona akua a Lono, nolaila, ua pau na akua i ka make o Kaunolu.

A pau ka lakou hana ana mau Kaunolu, alaila, mano iho la lakou e haalele ia wahi a e nee hou aku ma kekahi wahi hou aku. Nee iki ae lakou a noho ma Mamaki, a malaila i luku ia aku ai…

A pau ke koena o ke Akua o Kaunolu i ka lukuia, a pepehi pu ia kekahi akua opu ohao, o Kuahulua ka inoa oia akua, a no ka make ana oia akua ia Kaululaau, nolaila, hele hou ae ia lakou a noho ma Manele.

A malaila, ua noho loihi loa lakou i kekahi mau la ame kekahi mau po, a o ka Pahulu hana mau no i ka hele e nana i ke akua mao a maanei. A no ka halawai ole o lakou me ke akua, nolaila, hooholo lakou i ka olelo e pii o Kaululaau ame Lono iuka, a o Pahulu hoi, ua hele loa oia ma kahakai a hiki aku i Naha, a malaila oia e huli ae ai ia Kaululaau ma.

A o Kaululaau ma hoi, hele aku la laua mai Manele aku a pii aku a hiki i Kanauau, a malaila aku no a ke kuahiwi o Kaohai, a hele ae la no malaiala a Kahaalelepaakai, a ma ia kuahiwi aku no ka hele ana a hiki ae i Ohiahalo, a malaila aku ka hele ana hiki i ka mauna o Lanaihale, kahi hoi a Kaululaau i kapili ai i ka maka o ke akua i ke kepau.

Nupepa Kuokoa, October 24 & 31, 1863
Translated by Maly.

instructed by his god, Lono. Thus vanquished, were the akua of Kaunolū.

So when their work at Kaunolū was completed, they then thought of leaving the place, and they went on a short distance and stayed at Māmaki. And there also destroyed them…

Thus the remaining akua of Kaunolū were destroyed, and there was also killed a god with a protruding belly. The name of this god was Kuahulua. When this god was killed by Kaululāʻau, they then continued their journey and stayed at Mānele.

They resided there for some time—a number of days and nights—and as was Pahulu's usual practice he went about looking here and there for the ghosts. Not encountering any, he went to tell Kaululāʻau and Lono that they should ascend to the uplands, while Pahulu would travel along the coast to Naha, and from there he would seek out Kaululāʻau and his companion.

Kaululāʻau folks went from Mānele, ascending up to Kanauau [Kāneuaʻu (also written Kaniuaʻu)], and from there up the mountain of Kaʻōhai. From there they went to Kahaʻalelepaʻakai, and that peak they went to ʻOhiʻalalo. And from there they went to the mountain summit of Lānaʻihale, at the place where Kaululāʻau glued closed the eyes of the ghosts with the glue.

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Kealaikahiki: "Canoe Man's Path to Kahiki"

The island of Lānaʻi plays a role in some traditions describing the arrival of the gods and people in Hawaiʻi. The famed Kealaikahiki, "canoe man's path to Kahiki," reportedly starts at Kaunolū on Lānaʻi.[3] The residency of the god-navigator Kāneʻāpua is commemorated in a place name to this day, as is the place called Miki (Puuomiki), as a source of water, at Kaunolū. Below is one of the traditions of this god and his place in the life of the families of Lānaʻi.

He Moolelo no Wahanui me Kaneapua ma Lanai

O Wahanui kekahi alii o Oahu i holo i Kahiki. O Wahanui ke alii, o Kilohi ke kilo, o Moopuaiki ke kahuna a me na hookele moana. I ko lakou holo ana a pae ma Haleolono ma Molokai. I ka wanaao holo aku la lakou ma ka pali o Kaholo ma Lanai, i ke ao ana, kaalo ae la lakou ma ka lae o Kaunolu, a ma ka hikina hema iki aku o laila, o ka Lae o Apua, ka inoa oia wahi a hiki i keia la. E noho ana kekahi kanaka o Kaneapua ka inoa. Kahea mai la ua kanaka nei, penei, "Ko ke waa, no wai he waa?" "No Wahanui."

"O Wahanui ke alii, o wai ke kahuna?" "O Moopuaiki." "O Moopuaiki ke kahuna, o wai ke kilo?" "O Kilohi." "He waa e holo ana i hea?" "He waa e holo ana i Kahikiku, i Kahikimoe, i Kahiki kapakapakaua a Kane, he waa e holo ana e keekeehi i ka houpo o Kane." "O kou houpo la hoi o ko ke kanaka, ka houpo la hoi o ke akua keehiia iho, a pau ola, a koe make. Pehea la hoi owau kekahi maluna o ka waa?"

Olelo mai o Kilohi ke kilo. "Ua piha loa ka waa, aole oe e hiki." I ka holo ana ma kekahi ma-ka-lae mai, loaa i ka ino, me ka makani, a me ka puahiohio, o ka huli waa, hoolana aku la, a komo i ka lulu o Kaunolu, a pae i Kaumalapau.

A Tradition of Wahanui and Kāneʻāpua on Lānaʻi

Wahanui was a chief of Oʻahu who went to Kahiki. Wahanui was the chief, Kīlohi was the astronomer, and Moʻopuaiki was the navigator. They sailed and landed at Haleolono, Molokaʻi. In the early morning, they sailed along the cliff of Kaholo, on Lānaʻi, at daylight, they passed by the point of Kaunolū. Just a little to the south east of there, is the Point of ʻĀpua. That is the name of this place to the present day. There was dwelling there a man by the name of Kāneʻāpua. The man called out, thus, "The canoe, whose canoe is it?" "It is for Wahanui."

"So Wahanui is the chief, who is the priest?" "It is Moʻopuaiki." "So Moʻopuaiki is the priest, who is the astronomer?" "It is Kīlohi." "Where is the canoe sailing to?" "The canoe, is sailing to Kahikikū and Kahikimoe, Kahiki of the rain drops of Kāne, to tread upon the bosom of Kāne." "Your chest is that of a man, and to tred upon the bosom of Kāne, is the end of life, only death will remain. How about if I become one of them upon the canoe?"

Kīlohi, the astronomer said, "The canoe is completely loaded, you cannot come." As they sailed on by, passing a certain point, a storm arose, along with a wind and water spouts. Lest the canoe be overturned, they sheltered the canoe at Kaunolū, and then landed at Kaumālapaʻu.

In the story of this man, Kāneʻāpua, it is said that he came here from Kahiki. He came with

[3] cf. "He Moolelo no Makalei" in *Ka Hoku o Hawaii*, January 31 through August 21, 1928.

Ma ka moolelo o keia kanaka o Kaneapua, no Kahiki mai no oia, ua hele pu mai me kona mau kaikuaana a no ka wai ole, hoouna ia o Kaneapua, e pii i ka wai i uka o Miki, aia no ia wahi mauka o Lanai, aka, he kuko ua mau kaikuaana nei o Kaneapua, i ka aina momona o Kaneapua, oia ka aina i Kahalapiko nolaila, ua haalele ia o Kaneapua i Lanai, a ua moe i ko laila wahine, ua lilo i kupuna no kekahi poe.

Ua hana mau o Wahanui ma a no ka make pinepine, ua hooili ia maluna o ka waa, ma Kealaikahiki ma Kahoolawe ka holo ana i Kahiki. Ua olelo ia ma ka moolelo o Wahanui i holo ai i Kahiki, mai pilikia o Wahanui ma i ka moana a ua nalowale na aina, o Kaneapua ka hookele i loaa ai na aina o Kahiki, oia ka hookele akamai loa, ua pau na hoku o ka lani a me ka lewa…

Nupepa Kuokoa, January 5, 1867, pg. 1
Translated by Maly.

his elder brothers, and because there was no water, they sent him to the uplands at Miki, to get some water. It is there in the uplands of Lānaʻi. But because the older brothers coveted the rich lands of Kāneʻāpua, that is the land of Kahalapiko, they abandoned Kāneʻāpua on Lānaʻi. He mated with a woman of that place, and became an elder of some of the people there.

Wahanui folks continued trying [to sail], and frequently came close to dying, as storms came upon the canoe at Kealaikahiki, Kahoʻolawe, where one sails to Kahiki. It is said in the tradition of Wahanui's sailing to Kahiki, that there was much trouble that came upon them in the sea. When Kāneʻāpua became the steersman, they reached the lands of Kahiki. He was foremost of the navigators, and knew all of the stars of the sky and heavens…

2.1.2 Chiefly Lineages of Lānaʻi

It was after the events in which Kaululāʻau participated that we see references to chiefly lineages associated with Lānaʻi, and the island fell under the dominion of Maui rulers. The role and fate of Maui's chiefs in warfare with the chiefs of other islands also spilled over to Lānaʻi in the centuries following Kaululāʻau, and lasted through the time of Kamehameha I. In fact, a review of Lānaʻi's history since the time of western Contact reveals that the island and its people have been subjected to Maui's political policies throughout modern times.

Between the time of Kaululāʻau and his immediate peers until the middle 1700s, there are only a few notable references to chiefly associations on Lānaʻi and several passing references—generally one or two liners—to some event in which a chief visited or was associated with Lānaʻi. Samuel M. Kamakau made an interesting reference to Lānaʻi in his discussion of the Hawaiian nation in 1869:

Ka Moolelo o Hawaii—Helu 108

He aupuni kahiko loa ke aupuni Hawaii ma keia pae aina, aka, he aupuni liilii a mokuahana nae o ka noho ana, a ua lehulehu wale na ʻlii Moi ma keia mau pae aina, aole i

The History of Hawaii

The Hawaiian kingdom is an ancient kingdom in these islands, though it was a little kingdom and divided. There were many chiefs and Kings on these islands, the Hawaiian

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lilo ka pae aina o Hawaii i ka Moi hookahi, i kekahi elua Moi o Maui, a he alii okoa ko Lanai, a pela ko Molokai, ko Oahu, a me ko Kauai. A ma ko Kamehameha ikaika i ke kaua a na ʻlii i kokua pu iaia ma ke kaua ana, ua huipuia ma ke aupuni hookahi ke aupuni Hawaii. Mai ia manawa mai a loaa wale mai ia kakou i ka poe o keia wa ke kapaia o keia mau pae moku ke Aupuni Hawaii.

islands were not subject to one Sovereign. Once there were two Kings for Maui, with a different chief for Lanai, and the same for Molokai, Oahu and Kauai. As a result of Kamehameha's strength in battle, and with the chiefs that helped him in battle, the kingdom was unified as one Hawaiian nation. From that time until our present time, we are people of these is lands, a Hawaiian Nation.

Nupepa Kuokoa, March 18, 1869
Translated by Maly

According to Fornander, a review of genealogies and traditions indicated that Lānaʻi, while "independent at times," nonetheless shared a "political relation" with Maui a few generations after the cleansing of Lānaʻi by Kaululāʻau. This relationship was probably fortified during the reigns of Kiha-a-Piʻilani and his son Kamalālāwalu (Fornander 1996:94, 207). The research of Kamakau and Fornander makes several passing references to the fact that in ca. 1500 AD, Kiha-a-Piʻilani[4] was for a time forced to hide on Lānaʻi, until the path was open for his taking the throne from a cruel elder brother, Lono-a-Piʻilani. Kiha-a-Piʻilani's reign was one of progress and peace, though nothing more is mentioned of Lānaʻi (Kamakau 1961:22 and Fornander 1996:87, 206).

Following Kiha-a-Piʻilani's death, Kamalālāwalu became the king of Maui, attempted to invade the island of Hawaiʻi, and was killed. His son Kauhi-a-Kama took the throne, and was subsequently succeeded by his son, Kauhi. It is during the later years of Kamalālāwalu's reign that we find reference to a chief of Lānaʻi. Fornander (1916) published an account compiled from native informants whose narratives reference a king named Kūaliʻi who was said to have unified the Hawaiian islands several generations before Kamehameha I. Kūaliʻi was imbued with godlike characteristics, and reportedly lived between ca. 1555 and 1730 AD. He was a sacred chief, feared by all, and famed for his strength. In ca. 1600 AD, Hāloalena was the king of Lānaʻi, though he ruled under the authority of Kamalālāwalu and Kauhi-a-kama. Fornander [1916] reported that

> Haloalena, the chief of Lanai was considered a very good ruler. His great favorite pastime was the collection of the skeletons of birds. When the chief's bird tax was about due it was the usual custom of the agents to go out and proclaim the chief's wishes. (Fornander 1916, IV:422)

Hāloalena had the skeletons of the birds cleaned, prepared, and posed for safe keeping in one of several large storehouses on Lānaʻi as his personal treasures. Kauhi, a mischievous son of Kauhi-a-Kama, destroyed all the skeletons and

> This was the cause of the hostilities between the king of Lanai and the king of Maui, and the reason why the king of Lanai wanted to be independent and not be any longer under the king of Maui. At this time the chiefs of Lanai were under the control of Kamalalawalu, king of Maui. (Fornander 1916, IV:424)

[4] Kiha, son of Piʻilani, who lived in about the fifth generation after Kaululāʻau.

Kūaliʻi was drawn into the dispute, and settled it without bloodshed, though Hāloalena and Lānaʻi remained under the Maui kingdom (Fornander 1916, IV:426).

It is not until the 1760s–1770s that we find references to Lānaʻi, its people, and chiefs, having been drawn into the path of war between the kings of Hawaiʻi and Maui. This period of Lānaʻi's history has a direct impact on the lands of the Kaʻā region, and several prominent native and foreign historians described this time in Lānaʻi's history. Samuel M. Kamakau's series on Kamehameha I—which includes background information on the chiefs in historical events predating and during the youth of Kamehameha—names several chiefs from Lānaʻi:

Ka Moolelo o Kamehameha I—Helu 5

I ka makahiki 1769, oia ka lawe ana o Kalaniopuu ia Hana a me ka puali hikina o Maui. I ka hoi ana o Kalaniopuu i Hawaii, a mahope iho o ia manawa, hele mai la o Kamehameha Nui ka Moi o Maui, a kaua ia Puna ke alii Kiaaina Kalaniopuu i hoonoho ai no ka puali hikina o Maui. He kaua kaulana keia no na aoao elua. Ma ka aoao o Kamehameha Nui, ka Moi o Maui, ua hui pu mai naʻlii o Molokai, oia hoi o Kaohele, Kaolohaka a Keawe, o Awili, o Kumukoa, o Kapooloku; o na ʻlii o Lanai, oia hoi o Namakeha, o Kalimanuia, o Keliiaa a me na ʻlii o Maui.

The History of Kamehameha—No. 5

In the year 1769, that is when Kalaniʻōpuʻu took Hāna and the eastern district of Maui. Kalaniʻōpuʻu then returned to Hawaii, after which time, Kamehamehanui went to make war on Puna, whom Kalaniʻōpuʻu had left in charge of the eastern district of Maui. This was a famous battle for both sides. On the side of Kamehameha Nui, the King of Maui, there were joined the chiefs of Molokaʻi, being Kaohele, Kaolohaka a Keawe, Awili, Kumukoa, and Kapooloku; and the chiefs for Lānaʻi, being Namakeha, Kalaimanuia, Keliiaa, and the other chiefs of Maui.

Nupepa Kuokoa, December 1, 1866.
Translated by Maly.

Kalaniʻōpuʻu failed in an attempt to take control of Maui in ca. 1778, and took the battle directly to Lānaʻi. Fornander (1996) reported that

> Kalaniopuu ravaged the island of Lanai thoroughly, and the Lanai chiefs, unable to oppose him, retreated to a fortified place called "Hookio," inland from Maunalei. But being short of provisions, and their water supply having been cut off, the fort was taken by Kalaniopuu, and the chiefs were killed. This Lanai expedition is remembered by the name of Kamokuhi. (Fornander 1996:156–157)

Forty-five years after Kalaniʻōpuʻu's raid on Lānaʻi, his granddaughter, Keōpūuolani, also the sacred wife of Kamehameha I and mother of his acknowledged heirs, died. She had been an early and influential convert to the Protestant mission, and her passing was documented in the *Missionary Herald*.

> Keopuolani was greatly beloved by her people . . . Her native disposition was remarkably amiable and conciliatory, and her treatment of her subjects was ever humane.

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> We are informed by her biographer, who is a missionary at the Sandwich Island, that she was born on the island of Mowee [Maui], in the year 1773; that her father's family had governed the island of Owhyhee [Hawaii] for many generations; and that her mother's family belonged to the islands of Mowee, Woahoo [Oahu], Ranai [Lanai] and Morokai [Molokai]. Her grandfather was the king of Owhyhee when it was visited by Capt. Cook, in 1777 [1778].[5]

2.2 Historical Events: Transitions in Land Use and Population on Lānaʻi

In the 1770s, around the time of western Contact with Hawaiians, Kalaniʻōpuʻu, sovereign of Hawaiʻi Island, attempted to take the Maui group of islands by force. Repelled from Maui, the invading force settled on Lānaʻi for a time and reportedly killed many of the native residents and laid the land to waste (Fornanader 1996 and Kamakau 1961). Apparently, Lānaʻi's native population never recovered from this event. In 1804, the first major epidemic brought to the islands on foreign ships swept through the group. It is estimated that by 1805, 150,000 Hawaiians from Niʻihau to Hawaiʻi died.[6] On Lānaʻi the decline didn't end. One estimate of the native population on Lānaʻi in ca. 1793 is 6,000 (Bowser 1880).[7] By 1823, Mission Station Journals estimate the population on Lānaʻi to be between 2,000 and 3,000 people, and by the early 1890s the population was around 200. By 1902, the native population dropped to 80 residents, most of whom were descendants of Lānaʻi's long-term native families. One can only guess how much traditional knowledge of place, practices, and traditions was lost as the population fell from 6,000 to 80 in a little more than a century.

With the exception of the periods from 1854 to 1864 and 1899 to 1901, there were no increases in the population on Lānaʻi. The two periods of increase were tied to western initiatives, the first being an experiment by members of the Mormon Church to establish a station on Lānaʻi between 1854 and 1864. This period led to an increase of more than 300 Hawaiians and a few foreigners, with the majority living in the ahupuaʻa of Pālāwai, and regular travel between the upland settlement and the Mānele landing. The experiment was in decline by 1858, and though there was a revival between late 1861 and 1864, the Pālāwai experiment was terminated, and the native population continued its historic decline. The second period of growth, between 1899 and 1901, occurred when the Maunalei Sugar Company brought in some 600 non-Hawaiian laborers to operate a sugar plantation along the windward section of Pālāwai Ahupuaʻa.

One significant contribution to the decline in Lānaʻi's ability to support the resident population was the introduction of grazing herbivores—goats, sheep, and cattle—which were raised to provide foreign vessels with a meat source. These animals, along with the Scandinavian roof rat, produced a rapid and devastating impact on the ability of Lānaʻi's forest to draw moisture from the wind-borne clouds and develop groundwater resources. In addition to the introduction of

[5] "Keopuolani, Queen of the Sandwich Islands Died on September 16th, 1823, while in residence at Lāhaina," *Missionary Herald*, July 1825:234–235.

[6] Pacific Commercial Advertiser, Nov. 6, 1864.

[7] Archaeological fieldwork conducted over the last decade supports this estimate, which is higher than that given by Kenneth Emory in 1924.

herbivores, the western demand for staple crops such as potatoes, along with the demand for ʻiliahi (sandalwood) as a trade item, and the hunger for firewood to be used in processing whale blubber, led to the clearing of vast tracts of land. Just as the Hawaiians had no immunities or natural protection from introduced diseases, the native plants, animals, and ecosystems were also unprepared for the impacts of human clearing of the landscape and foraging animals that browsed and trampled everything that was visible, thus killing the land.

In light of the incredible population losses on Lānaʻi, we are fortunate that any traditional knowledge of place survived. A number of historical accounts—those recorded by native residents, visitors, and in various government documents—shed light on a wide range of aspects of the history of Lānaʻi's people. The historical records below provide us with glimpses into the changes on Lānaʻi between ca. 1820 and the early 1900s.

Lānaʻi in 1823

William Ellis, an English missionary who worked with the early Protestant missionaries in the Hawaiian islands, described Lānaʻi, the nature of its resources, and the estimated population in the early 1820s:

> RANAI, a compact island, seventeen miles in length and nine in breadth, lies north-west of Tahaurawe, and west of Lāhaina, in Maui, from which it is separated by a channel, not more than nine or ten miles across. Though the centre of the island is much more elevated than Tahaurawe, it is neither so high nor broken as any of the other islands: a great part of it is barren, and the island in general suffers much from the long droughts which frequently prevail; the ravines and glens, notwithstanding, are filled with thickets of small trees, and to these many of the inhabitants of Maui repair for the purpose of cutting posts and rafters for their small houses.
>
> The island is volcanic; the soil shallow, and by no means fertile; the shores, however, abound with shell-fish, and some species of medusae [jellyfish] and cuttle-fish. The inhabitants are but few, probably not exceeding two thousand. Native teachers are endeavouring to instruct them in useful knowledge and religious truth, but no foreign missionary has yet laboured on this or the neighboring island of Morokai, which is separated from the northern side of Ranai, and the eastern end of Maui, by a channel, which, though narrow, is sufficiently wide for the purposes of navigation. (Ellis 1963:6–7)

A Protestant mission station was established in Lāhaina in 1823, and was responsible for West Maui, Lānaʻi, Molokaʻi, and Kahoʻolawe. Mission station leaders were tasked with overseeing the spiritual, educational, and health needs of island residents. In addition to the Protestant missionaries, Lānaʻi experienced a period of development as a Mormon mission station from late 1853 to early 1864. As noted above, the "experiment" brought an increase in Lānaʻi's Hawaiian population, with Hawaiians from other islands moving to Lānaʻi, and also fostered some significant changes on the island, notably in the area of land tenure. The work of the various missionaries and their associates resulted in the creation of an important record of history on the island. Excerpts of reports, personal journals, and articles published in Hawaiian and missionary papers—documenting Lānaʻi population statistics, land use, health, and development of churches and schools—provide important records from Lānaʻi.

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> The islands of Ranai and Morokai have, till within a few weeks, been entirely without teachers. To the former [Lāna‘i], I last week sent a man, who is to act as superintendent of four schools, which are to embrace all the people of the island. There are a few people there, who have frequently visited Lāhaina, and when here, have always been in our schools. From among this number, the superintendent is to select four assistants; and thus I hope all the people will have it in their power to learn to read and write, and to acquire, by means of our books, many of the first principles of Christianity. Of the number of pupils which will be embraced in these schools, I can form no estimate, as I have yet received no report, and the island has never been explored by any of our number…
>
> The communications between the two last mentioned islands and Lāhaina, are frequent, and even constant. There is scarcely a day, but canoes pass and repass. Almost the only communication is by canoes, though small vessels occasionally visit Morokai. The inhabitants of those islands have very little communication with any other place except Lāhaina. If therefore they are illuminated at all, they must derive their light from this station. Tawawa [Kahoolawe], too communicates with no other island except Maui, though there are few inhabitants there, and those mostly fishermen, who are not permanent residents.[8]

Missionary Visits to Lāna‘i in July 1828

The earliest eyewitness description of travel on Lāna‘i was penned in 1828, when William Richards, in the company of Kamehameha I’s sacred daughter, Princess Nahi‘ena‘ena, made a visit to the island. The journal notes were forwarded to the secretary of the American Board of Commissioners of Foreign Missions (A.B.C.F.M.)[9] through a communication on December 25, 1834, and the excerpts from the journal cited below describe conditions on Lāna‘i at the time. It is notable that there is a discussion on the practice of people living near the shore, where there is easy access to fisheries and brackish water sources; the occurrence of an upland plantation moistened by the cloud and fog drip—the bench lands above the Pālāwai Basin; and the practice of the people to travel seasonally between the coastal region and the uplands to tend their plantations of dryland kalo and other crops.

> As it is especially desirable that you have correct information respecting all our fields of labor, I prepare in this letter to give you some account of Lanai, the little island which lies directly opposite Lāhaina & about seven miles, distant. You will perceive by the accompanying map,[10] that its greatest length is about 17 ½ miles and its greatest breadth is about 12 miles. The land rises from the shore to the interior, and terminates in lofty points. The sides of the mountains are cut up by innumerable ravines or alternate ridges and hollows. But these valleys are not like

[8] August 9, 1825, Letter of William Richards Describes Progress of Instruction—Four Schools Established on Lanai, *Missionary Herald*, June 1826:174–175.

[9] Kepā and Onaona Maly researched the American Board of Commissioners of Foreign Missions (A.B.C.F.M.) collection at Harvard in 2004, and subsequently digitized it for return to Hawai‘i. This journal, along with thousands of other records of importance to Hawaiian history, have been lost to Hawai‘i for 177 years and are seen here in print for the first time.

[10] The map referred to by Richards was not found in files with this letter and cannot now be identified.

> the valleys on the windward side of the other islands, furnished with openings & rivulets.
>
> There is but one permanent brook on the island, and that is so small that it is all lost in a few small talo[11] ponds, and their fare does not reach the shore except in the wet seasons of the year. There is not a well of good water on the island, except such as are prepared after the manner of the Hebrews. These wells, though few on Lanai, are common at many parts of the Sandwich Islands. They are either natural or artificial pits, sometimes only a few feet in diameter, and at other times many yards. They are so prepared as that when it rains the water for a distance may flow into them. There are steps to go down into them, but they are not often very deep. In places where they are exposed[12] to direct light & from the wind, they are uniformly covered and even where they are not thus exposed they are often covered, to prevent the water from drying up as soon as it would otherwise. Some of these wells are never exhausted even though they are not replenished for eight or nine months. Others which are small, depend entirely on the almost nightly rains which fall on most of the high mountains of the Sandwich Islands, though in many places these rains are little more than heavy dews.
>
> There are many people who make no use of water for washing either themselves or their clothes, except the dew or water on the grass and some times, there is so little of this that they resort to the juice of the succulent plant which they collect. Most of these people however, have two places of residence, and only spend a part of the year on the mountain where there is also a great scarcity of water. In the sea shore, both at Lanai and throughout the islands, with few exceptions, there is a full supply of brackish water, but such as none can drink except those who are accustomed to it. I know not a single well on the Sandwich Islands, supplied with water from the bottom, except such as are on the sea shore on a level with the sea.
>
> Owing to the scarcity of water on Lanai, the inland is barren almost beyond conception. I have recently been quite round the island, and visited every principal village on the island except one, and during my whole tour, I saw but one good well of water; and no spring or brook, and I saw nothing growing which was suitable for food, either for man or beast, and nothing grows except sea weeds and sea grass. I should except a few cocoanut trees and two or three[13] or four have trees.
>
> Most of the people live near the shore for the purpose of taking fish in which the shores of Lanai abound, and a considerable portion of their vegetable food they receive from Lāhaina, in barter for fish. There is however one inland plantation of some extent, which furnishes considerable food. It is watered by the mist or light rain which falls during the night, in sufficient quantities for the growth of potatoes and in wet seasons some upland - taro is raised. There are few people that reside at that place constantly, but considerable number who reside generally on the shore,

[11] Here Richards is referring to *kalo*, or taro.

[12] Page 1 - Reel 797:762.

[13] Page 2 - Reel 797:763.

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go up & spend a month or two at a time so as to keep their land under cultivation, and then return again to the sea side where they can have abundance of fish, and water too, such as it is for there is a plenty of that which is brackish.

The numbers of inhabitants on the island, has been estimated at about 1600; but at the present time I think there are not so many though there has been no regular census of the island taken & it is impossible to make such an estimate as can be relied upon.

The island is always under the same governance as the island of Maui, but the direct care of it has for years been given to Kapeleaumoku, an elderly man, who is a member of our church, and a man of established reputation…

In a letter of mine written Oct. 15th, 1828[14] I alluded to a tour around the island of Lanai, made by myself in company with the Princess, and promised a full account of it. The following is from my journal kept at that time, but which was never sent.[15]

July 24, 1828 – Thursday.

A few missionaries located at the principal places on each of the islands exert an important influence not only over those inhabitants who receive their constant instruction, but also over all the inhabitants of the several islands. This they do, in part, through the chiefs in part, through native teachers, but principally, in consequence of the roving habits of the people which induce them often to visit the principal places by which means they are brought under the occasional sound of the gospel and for a season under the direct influence of missionary instruction.

The chiefs too are after calling the people to the places where they reside to do work for them. In the winter & spring of 1832, all the able bodied men of Maui, Molokai & Lanai were called to Lāhaina, and most of them spent several weeks there. It is probable that scarcely a year passes in which most of the people are not thus called to the residence of the chiefs.[16]

The following are extracts from the Lāhaina Report dated October 15, 1828. It mentions the people of Lanai assembling for prayer and instruction, as well as population and school enrollment statistics.

You are already aware that this place is the centre of missionary operations for Maui, Molokai, Lanai, and Kahoolawe. Lāhaina is the only place where there is regular preaching. It is, however, by no means the only place where people assemble for religious worship on the Sabbath. There are not less than twenty places on this island, and several on Molokai and Lanai, where people assemble for prayer and instruction. The native teachers take the direction of the meetings, occupying

[14] Page 3 - Reel 797:764.

[15] At this point Richards inserts lengthy narratives from his personal journal of 1828, and his visit to Lāna‘i with Chiefess Nahi‘ena‘ena and the near loss of Kapeleaumoku while traveling from Lāhaina to Lāna‘i.

[16] Wm. Richards to Rev. Rufus Anderson, Secretary of the A.B.C.F.M., Recounting Trips to Lanai in 1828 and 1834 [page 17 - Reel 797:778].

the time in reading and teaching the various Scripture tracts and other books, and conclude with prayer. By this course the people are inspired with a reverence for the Sabbath; and though the teachers are themselves extremely ignorant, yet they are able, in this manner, to communicate some instruction, and the people are thereby kept from assembling for vicious purposes, and worse than idle conversation.

Examination of the Schools

During the summer and early part of the fall of 1828, subsequently to the arrival of the late reinforcements, owing to an increase of their numbers, the missionaries at Lāhaina were enabled to make tours over Maui and the small island adjacent, for the purpose of preaching the Gospel, examining the schools, and giving the people such counsel and encouragement as their circumstances required…

No. of Scholars

Island	Sch'ls.	Male	Fem.	Writers	Readers	Total
Ranai	11	236	249	31	201	485

…A great proportion of the pupils are persons of middle age, and still they have learnt to read the Scriptures. According to the estimate we made, only one fifth of the scholars are under fourteen years of ages.

The people of every district which we visited were addressed particularly on this subject, both by ourselves and the princess [Nahienaena]. We have received the fullest evidence that our exertions have not been in vain. Since our return from the tour of the island, about 5,000 spelling books have been called for, principally to establish schools among children. This increases the whole number enrolled in the schools to about 18,000; viz. 15,500 to this island [Maui]; 1,000 to Molokai; and 700 to Ranai. It is not probable that, with the present population, so large a number as this can ever appear at an examination. But 18,000, we think less than the full number of those who are now enrolled in the schools under the direction of this station…

The population of Maui has been heretofore estimated at 20,000, that of Molokai at 3,000 or 4,000, and that of Ranai at 2,000 or 3,000, making the whole population on these three islands not more than 27,000. The present estimate represents the population as probably amounting to 37,000. Upon comparing with this the number of learners in the schools on these islands, as just given, it will be seen that almost half the whole population, of both sexes, and all ages, are in the schools; a larger portion of the people, probably, than are enjoying the advantages of instruction in any other country on the globe.[17]

[17] *Missionary Herald*, July 1829:208–211.

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2.3 Alanui Aupuni: Government Trails and Roadways

In the ancient land system, trails crossed the landscape, both mauka to makai and laterally along the shore, and at various elevations. As a result of western Contact, and the development of wagon and horse trails, a more formalized system of roadways was needed. By 1847, King Kamehameha III promulgated a law establishing the Alanui Aupuni kingdom/government road system. Major trails which provided access around islands and between primary places of habitation and business were integrated into the Alanui Aupuni system and maintained through funding from the government and public work days by tenants of the lands through which the roads and trails passed.

Beginning in the mid-1850s, native and foreign residents of Lānaʻi began written documentation of government and community public service efforts in developing a road system that would facilitate not only foot traffic, but also cart/wagon traffic to major locations in the uplands and along the shore of the island. Several Alanui Aupuni routes were identified on Lānaʻi. These included five major points of access, and one for which little information has been found: i) The road from Mānele landing to the uplands through Pālāwai Basin; ii) the road from Pālāwai Basin to Kōʻele; iii) the road from Kōʻele to Awalua, situated in Paomaʻi Ahupuaʻa; iv) the road from Awalua to Keōmoku, crossing the coastal lands of Paomaʻi Ahupuaʻa; v) the road from Keōmoku to Naha, up to Waiakeakua flats and down into Pālāwai; and vi) the road that follows the Kalulu-Kamoku Boundary down to Kaumālapaʻu Harbor.

From these major routes, smaller trails provided native tenants with access to their personal properties and access collection areas. Kingdom Registered Map No. 1394 (Figure 6) is the master map of the Alanui Aupuni on Lānaʻi, and is the basis of the routes that are protected under the Highways Act of 1892.

The earliest communication found to date was penned in 1854, which identifies native resident, Kaaina as the "Road Supervisor" for Lānaʻi. Kaaina reported that public labor of 148 residents over the period of 36 days had been completed on the roads at "(1) Paomai; (2) Maunalei; (3) Kaa; (4) Kaunolū; (5) Palawai; (6) Kaohai."[18]

As a part of Land Patent Grant 5011, which conveyed all government interest in the public lands on Lānaʻi to Walter Giffard on behalf of Charles Gay, grant conditions included the exclusion of all roads, trails, and right of way:

> Reserving therefrom all lands covered by Grants and Land Commission Awards, Reserving to Government ownership for public uses, all existing roads, trails and right of way.[19]

With the advent of the Hawaiian Pineapple Company, Limited ownership of nearly 99 percent of Lānaʻi, the corporation undertook research and filing of title for all lands on Lānaʻi--those held by the company, and those held by private parties or the government. Land Court Application proceedings of the Hawaiian Pineapple Company, Limited reconfirmed the exclusion of all roads, trails, and right of way, stating: "Also excluding all existing roads, trails, and rights-of-way as shown on Government Survey Registered Map No. 1394."[20]

[18] *Missionary Herald*, July 1829:208–211

[19] Land Patent Grant 5011, February 1, 1907, p. 476.

[20] Land Court Application No. 862, Map 1, June 5, 1929.

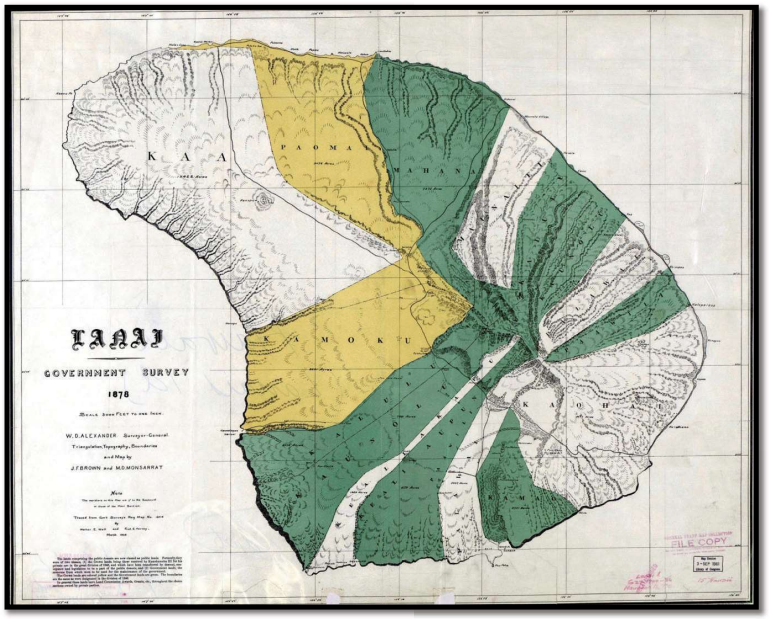

Figure 6. 1878 Lanai Government Survey map (Registered Map [RM] No. 1394) (Brown and Monsarrat 1878)

Historical communications provide background information on the evolution of the Alanui Aupuni through Paomaʻi to Awalua Landing, and connecting with other thoroughfares on Lānaʻi.

The excerpted letter below regards the Lānaʻi road report. It is written by L. Kaaina, the Assistant Road Supervisor, to C. B. Analu on December 14, 1854.

> Love to you.
> I have heard your orders by the mouth of Pualewa, saying, that my road report which was sent is wrong, is it true that it is wrong?
> This is my explanation now in order to make it clear. The number of labor days was 36, persons subject to road tax 148, 1 man paid in full $2.00. Government tools and implements with me, none. This is how those 36 working days were arrived at. Here in Lanai, 6 roads were repaired,--at (1) Paomai; (2) Maunalei; (3) Kaa; (4) Kaunolu; (5) Palawai; (6) Kaohai.
> On each road were 6 days work, multiply 6 roads, will equal 36 days work as above described, that is the number of work days.
> The persons subject to road tax are 148, multiplied by 6 days for each person, will be 888 days. The 888 days, all the 36 days were worked.

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Here is another, in case you wish to write about the ballots, you send them right away by Pali's boat, so that I may be able to publish notice about the ballots here for the road. I will not be able to go to Molokai, I have appointed acting judge, Koiku, he is going to Molokai to publish the notice of the ballots for the representatives.

After the election day here, I will go to gather up the ballots.

This is mine to you, with thanks.[21]

Walter M. Gibson was, for a time, the acting Superintendent of Roads on Lānaʻi. During that time, he wrote the following, dated December 22, 1876, to I. Mott-Smith:

> I was assured by your predecessor in office, His Ex. W. L. Moehonua, that a certain proportion of the road monies appropriated for Maui, Molokai, and Lanai, would be set apart for Lanai, and according to the recommendation of Mr. Meyers road superintendent for Molokai, and Lanai. I understood the amount for Lanai to be $600. This could not be drawn at the time, but I was assured, both by your predecessor, and the late Minister of Finance that I might commence certain needed improvements on a road leading from Awalua to Manele on Lanai, with full assurance that in return of Mr. Meyers from the coast in December as expected, the proportion of public money designated for Lanai roads would be paid to me. Will your Excellency, kindly inform me, what action I may expect of your Department in this matter.[22]

An article from the Hawaiian Gazette entitled "Legislative Appropriation for Roads on Lanai," and published on August 4, 1880, indicated that $2,000 was appropriated for Lānaʻi.[23]

Another letter regarding the roads was written by Henry H. Gibson to H. A. P. Carter, Minister of the Interior, on September 12, 1881.

> Dear Sir:
>
> I beg to submit herewith a statement in relation to roads on Lanai.
>
> A highway leading from the landing of Manele in the S.E. end of the island, and terminating at the landing of Awalua on the N.W. end of the island, a distance of about fifteen miles, is known as a government road (ala nui aupuni). For a distance of about a quarter of a mile leading from Manele, and for about the same distance leading from Awalua, the road is impassable for a vehicle on account of masses of volcanic rock or aa. It would require an amount of labor and blasting at these two ends of the road that would cost about $400 each, or a total of $800.
>
> Another government road, "ala nui aupuni," leads from the landing of Maunalei in the N. side of the island, into an upper valley, where a junction is formed with the Manele and Awalua road. Part of the Maunalei road is an ancient paved ala nui through the aa. This is much broken up and not passable for a vehicle. A horse can barely pick his way along such a road. Labor and blasting material to the amount of about $300 would be required to put the road in good travelling order. In the

[21] Hawaiʻi State Archives, Interior Department Roads, Misc. Box 146.

[22] Hawaiʻi State Archives, Interior Department, Roads.

[23] *Hawaiian Gazette*, August 4, 1880, supplement, p. 5.

> interior of the island where the soil is easily worked, and there are not obstructing rocks, road work is easy, yet the road readily washes into gulches, and there are places where stone and other material should be hauled to make permanent repairs.
>
> The sum of $1400 cash for labor of men and use of carts; and about $100 for blasting material could at this time be applied advantageously in making good roads on Lanai; and I ask permission of Your Excellency to draw on the Department for the repair and completion of these roads.[24]

The following is correspondence from F. H. Hayselden to J. A. Hassinger, Chief Clerk of the Interior Department. Hayselden wrote to Hassinger on August 24, 1893, requesting reimbursement for funds expended for the roads.

> Your favor of 19th, in regard to Lanai Roads is to hand. Also copy of instructions of May 2nd. There is as you say some misunderstanding in regard to the amt. to be expended. You will perhaps remember that before authorizing me to make repairs on Lanai Roads you enquired of one of your clerks for the amt. to the credit of Lanai Road acct. in Interior Department books, and if I remember rightly it was with the special deposit in your safe upwards of $500.00. I stated at the time that we should need the whole of it, but upon consultation with the Minister it was decided to advance me then $200.00 of said amt. further advances to be made as the work went on. The work done mostly on the Awalua road, eleven miles in length, was absolutely necessary and we now have a good road there. It had to be worked all over for five miles of its length and I consider it was most economically done, had I not felt sure that the amt. of the credit of Lanai Roads was not wholly available I should have hesitated to commence the work, however, I can only do as you request, send you vouchers for the $200.00 advanced and for the $57.40 you held as special deposit according to copy of instruction of May 2nd, 1893; original of which I have been hunting for but cannot find as it is mislaid somewhere. But I trust that when His Excellency the Minister of the Interior has a spare moment that you will explain matters to him. But before doing so please look up on your books for the amt. to credit of Lanai Roads and which by law cannot be used for any other purpose and if you find it as I say, I hope His Excellency will authorize the expenditure of the same through me or accept my vouchers for what has been expended on the roads.[25]

The legislature revisited road appropriations in 1898.

> The House amendments to the current accounts appropriation bill were resumed where left off yesterday, with the following results:[26]
>
> Roads and Bridges:
>
> …Road from Koele to Awalua, Lanai. $500.

[24] Hawaiʻi State Archives, Interior Department, Roads – Molokai & Lanai.

[25] Hawaiʻi State Archives, Interior Department, Roads Box 46.

[26] "The Senate This Morning: Lanai Road Appropriations," *Evening Bulletin*, June 23, 1898, p. 1.

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A. Kaaloa wrote the following newspaper article in 1897, describing the progress of the road building.

> There was started again work on our roads this year, on the 22nd day of March, on the road that runs to the boat landing of Awalua to Koele. It has been two weeks or more, and this week the work began on the road from Maunalei. S. K. Peleaumoku is the supervisor. In the past years, our landlord was the road supervisor, for many years past. Only recently has our friend in the Maaa winds of Kahalepalaoa been given the task.
>
> This is the first time that a native has been given this work to do, it has not been known to have happened in the Interior Department before, that someone's name was taken at his place of residence. He has taken the work with skill and thoroughness. Blessings upon the one who does this work.
>
> A. Kaaloa
> In the Kumumaomao wind of Keomoku, Lanai.[27]

Cecil Brown, a representative of William M. Gibson, wrote to James A. King, Minister of the Interior, about funds for the Lānaʻi roads on April 18, 1899.

> Sir: I note that there is to the credit of Lanai Road account a sum approximating $144, and also an appropriation by the last Legislative assembly of $500 more.
>
> This last amount I believe was for a specific road, i.e. from Koele to Awalua, the then landing for Lanai. The conditions now however, are changed, for since the appropriation was made, the landing at Awalua has been wiped out, and the buildings and pens there and the road have been washed away by freshets, so that as a landing Awalua is no longer a port.
>
> Representing as I do as Administrator of the Estate of W. M. Gibson, the largest interests on the Island of Lanai, I beg to draw your attention to the following facts:
>
> The principal business with the estate I represent, is, that of raising cattle and sheep, and the wool of said sheep. You will by reference to the tax books find that we pay the majority of taxes on said Island.
>
> In consequence of high winds and floods of rain, the Awalua road has been for the past year practically useless. So much so that last year's clip of wool is still in warehouse in the interior of the island.
>
> On May the 1st next, shearing will commence, and within 3 months another clip of wool will be taken off.
>
> This wool and also the clip of last year must be transported to a landing where a steamer can take it. The only port now available is Manele on the south east point of Lanai.
>
> I would therefore ask Your Excellency to direct that the $500 appropriated for (road from Awalua to Koele) be applied to the road from Koele to Manele.
>
> I have seen Mr. Hassinger and he has a map that will more fully explain the requirements.

[27] A. Kaaloa, "New Work is Progressing on the Roads of Lanai Kaululaau," *Ka Makaainana*, April 26, 1897, p. 3. Translated by Maly.

> I will guarantee that the money will be properly and economically expended, and I will furnish Your Excellency detailed bills of expenditure properly endorsed and authorized.[28]

2.4 Land Tenure

The Māhele ʻĀina of 1848 set the foundation for fee-simple property rights in the Hawaiian Islands. As a part of major ethnographic work conducted by Kepā and Onaona Maly for the development of the Lānaʻi Culture & Heritage Center, a full history of land tenure on Lānaʻi in the period between 1848 and 1960 has been conducted and made available to the public.[29]

The narratives below summarize the Māhele ʻĀina on Lānaʻi, drawn from a review of all records compiled as a part of the Māhele ʻĀina of 1848, with subsequent actions of the Land Commission and government through issuance of Royal Patents on the Awards.

Māhele ʻĀina Statistics on Lānaʻi

A total of 110 claims which could be verified for Lānaʻi were recorded. These include both chiefly and commoner/native tenant claims.

- 105 claim records were located in the volumes of the Native Register.
- 88 claim records were located in the volumes of the Native Testimony.
- 2 claim records were located in the volumes of the Foreign Register.
- 21 claim records were located in the volumes of the Foreign Testimony.
- 64 of the claims were surveyed and recorded in the Māhele Award Survey Books.
- 51 claim records were recorded in the volumes of the Royal Patent Books.

The combined claims from Lānaʻi represent 331 separate documents (some overlapping in records of the Native and Foreign Books):

- 56 claims were awarded. Of those awarded, five claimants were chiefly awardees, who received entire ahupuaʻa.
- 51 awards made to native tenants and individuals of lower chiefly lineage, totaled a little over 600 acres of the approximately 89,000 acres of land on Lānaʻi.

Place Names Referenced in Claims by Applicants

A total of 86 place names for the island of Lānaʻi are in the records provided to the Land Commissioners. Place Names from Kamoku are Aumoku 1 & 2, Iwiole, Kaumalapau, Kulelelua (Kalelelua), Makaliilii, and Mooloa.

[28] Hawaiʻi State Archives ID Roads, Molokai & Lanai.

[29] Lānaʻi Culture & Heritage Center, http://www.lanaichc.org/.

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2.4.1 Disposition of Ahupuaʻa and Konohiki Claims on Lānaʻi

As a part of the Māhele, the king and chiefs were required to file their claims for personal lands, determine how to pay for their lands--usually by giving up certain lands, in lieu of cash payment--and to claim the kapu (taboo) fish and wood of their land. The latter items were the konohiki (headman of an ahupuaʻa) rights to resources with which the konohiki would sustain themselves and generate revenues for their support. In eliciting claims and documentation of rights, the chiefs began submitting letters for the record to the Minister of the Interior.

There were only limited letters submitted for Lānaʻi. Of particular interest is a letter dated August 26, 1852 from Noa Pali to Keoni Ana, Minister of the Interior, documenting the kapu or konohiki fish and trees for 11 of Lānaʻi's 13 ahupuaʻa (Table 1).

Table 1. Forbidden fish of the konohiki and the prohibited woods (Pali 1852)

Konohiki	Land	Fish	Wood
Mataio Kekuanaoa	Kaʻā	Uhu	Koko (ʻAkoko)
Mataio Kekuanaoa	Kaohai	Heʻe	Naio
Nahaolelua	Maunalei	Heʻe	Kukui
Kanaina	Paomaʻi	Heʻe	ʻAiea
Haalelea	Pālāwai	Anae	ʻAhakea
Kaeo	Keālia (Kapu)	Uhu	—
Kaahou	Kamaʻo	Heʻe	Koko (ʻAkoko)
Iʻi	Kalulu	Heʻe	ʻAhakea
Pali	Kamoku	Uhu	Koko (ʻAkoko)
Pali	Keālia (Aupuni)	Uhu	Koko (ʻAkoko)

Your Highness, this is for you to decide in your office.*
*Hawaii State Archives, Interior Department Lands

Buke Māhele (Land Division Book), 1848

In preparation for the final division of lands between the king, konohiki, and government, a Buke Māhele was kept as a log of the agreed upon division. This book is the basis of the Crown and Government land inventory now known as the Ceded Lands. There are 13 ahupuaʻa on Lānaʻi. Disposition of 10 ahupuaʻa was recorded in the Buke Māhele (1848) and before the Land Commissioners. Three ahupuaʻa were apparently dropped through an oversight on the part of the king, Commissioners, and staff. Titles confirmed at the close of the Land Commission are presented in Table 2.

Table 2. Disposition of Ahupuaʻa of Lānaʻi (Buke Māhele 1848)

Ahupuaʻa	Claimant	Disposition	Buke Māhele (1848)
Kaʻā	Victoria Kamamalu	Awarded	Page 4, Jan. 27, 1848
Kalulu	Daniela Ii	Crown	Testimony of M. Kekauonohi, Dec. 1847
Kamaʻo	Kahanaumaikai	Government	Page 47, Jan. 31, 1848
Kamoku	No record	Crown	Record of Boundary Commission 1877
Kaohai	M. Kekuaiwa (M. Kekuanaoa)	Awarded	Page 14, Jan. 27, 1848
Kaunolu	Keliiahonui	Government	Page 130, Feb. 9, 1848; Page 209, Mar. 8, 1848
Keālia Aupuni	Kahanaumaikai	Government	Page 47, Jan. 31, 1848; Page 209, Mar. 8, 1848
Keālia Kapu	Iosua Kaeo	Awarded	Page 34, Jan. 28, 1848
Mahana	Wm. C. Lunalilo	Government	Page 22, Jan. 28, 1848
Maunalei	Pane (Fanny Young)	Awarded	Page 161, Feb. 12, 1848
Pālāwai	M. Kekauonohi	Awarded	Page 26, Jan. 28, 1848
Paomaʻi	No record	Crown	Testimony of C. Kanaina, Dec. 1847
Pawili	Wm. C. Lunalilo	Government	Page 21, Jan. 28, 1848; Page 207, Mar. 8, 1848
ʻIli of Kaumalapau 1 & 2	Oleloa (wahine)	Government	Page 105, Feb. 7, 1848; Page 209, Mar. 8, 1848

The following is a translation of a Land Commission document from the Native Register. It is from the claimants on Lānaʻi and describes the land to which they stake claim.

> Aloha to you Commissioners who Quiet Land Claims of the Hawaiian Kingdom. We hereby petition to enter our claims on the Island of Lanai.
>
> Here are our claims — moo (planting parcel) lands; kula (open plains and planting) lands; the mountains; the wood, woods to be taken under the Konohiki; fishes, fishes to be taken under the Konohiki; the length is from the moana (open ocean) to the fishery of Kaholo; from one fishery to the other fishery. We are the people in the Ahupuaa of Palawai, Pawili, Kaunolu, Kalulu, Maunalei and Mahana. Here are our names (Table 3).

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That is the end.[30]

Table 3. Names of Lānaʻi claimants (Native Register 6, 1848)

Helu (Number)	Name	Helu	Name	Helu	Name
10024	Lono	10042	Nakalo	10025	Kaneakua
10043	Paele	10026	Papalua	10044	Kapahoa
10027	Nalimu	10045	Haalu	10028	Oawa
10046	Nalei	10029	Apolo (See O)	10047	Pauahi
10030	Napuulu	10048	Haole	10031	Palaau
10049	Moo	10032	Pakele (See O)	10050	Wailaia
10033	Kaia	10051	Kalamau	10034	Nakuala
10052	Kuakaa	10035	Naehulua	10053	Kapuhi
10036	Paaoao	10054	Elikai	10037	Pamioa
10055	Kunea	10038	Kaiole	10056	Keaka
10039	Puupai	10057	Ohoe	10040	Pohano
10058	Kaunele (See O)	10041	Kanekeleia		

Boundary Commission Surveys and Testimonies

Following the Māhele ʻĀina, there was a growing movement to fence off land areas and control access to resources which native tenants had traditionally been allowed to use. By the 1860s, foreign land owners and business interests petitioned the Crown to have the boundaries of their respective lands—which were the foundation of plantation and ranching interests—settled. In 1862, the king appointed a Commission of Boundaries, a.k.a. the Boundary Commission, whose task was to collect traditional knowledge of place, pertaining to land boundaries and customary practices, and determine the most equitable boundaries of each ahupuaʻa that had been awarded to aliʻi, konohiki, and foreigners during the Māhele. The commission proceedings were conducted under the courts and as formal actions under the law. As the commissioners on the various islands undertook their work, the kingdom hired or contracted surveyors to begin the surveys, and in 1874, the Commissioners of Boundaries were authorized to certify the boundaries for lands brought before them.[31]

In the period of 1876–1877, William D. Alexander, Surveyor General; M. D. Monsarrat, Assistant Surveyor; J. F. Brown; and party surveyed the entire island of Lānaʻi, traveling with

[30] *Helu* 10041 (Recorded with *Helu* 10024), Kanekeleia (and Lono et al.), Palawai, Native Register 6:510–511, Lanai, February 12, 1848, translated by Maly.

[31] W. D. Alexander in Thrum's Hawaiian Annual, 1891:117–118.

elder native tenants. Alexander's field book,[32] covering late March and early April 1876, contains his notes, compiled through interviews and fieldwork. The book provides readers of the present day with glimpses into the cultural and natural landscape of Lānaʻi, and identifies several elder informants on Lānaʻi. Of particular importance is documentation of traditional sites such as heiau, areas of residence, burial sites, shrines, former ʻuaʻu (dark-rumped petrel [*Pterodroma phaeopygia sandwichensis*], an endangered sea bird) nesting grounds, and trails. In the record are also found a number of place names and descriptions of features not mentioned in other documentary sources.

Unfortunately, few of the narratives recorded in Register Book No. 153 made it into the formal proceedings and documents of certification authorized by the Boundary Commission. The court proceedings focused on metes and bounds, relying on the authenticity and accuracy of the documentation provided by the surveyors. Thus, the notes copied verbatim from Register Book No. 153 provide us with the background as to how the boundaries were determined, and identify significant cultural resources of Lānaʻi.

The following from Register Book No. 153 are notes on Lānaʻi boundaries at Halepalaoa. It is dated March 28, 1876. Note that Alexander uses macron accents-kahakō-on certain place and people names as indicated.

> Kaumalapau & Kalama are both Ilis of Kamoku. Three lands run across from sea to sea, viz., Palawai, Kalulu, & Kaunolu…
>
> **April 1.**
>
> Appr. Elevation of the water shed near the road from Maunalei to Kamoku = 1750 ft.
>
> Appr. Elevation of the Koele station 1550 ft…
>
> **April 3rd. 76. Monday.**
>
> Keliihue widow of Nahuina, was born on Kalulu, & testifies that the boundary between Kalulu and Kamoku comes down from a hill known as Puunene down the North bank of the Kapano valley to the Govt. road, passing near Kawaonahele's house, keeping straight on across a side ravine coming in from the north, called Keaakū, to the top of the north wall of the Palawai crater at a place called Pulehuloa, near Keliihananui's house.
>
> **Kamoku**
>
> Thence it skirts to the northwestern slope of the crater till it meets the old road to the sea, which it follows down to Kaumalapau Harbor. Papalua another old resident agrees with the above in the main, but declares that from Pulehuloa the boundary runs to a rocky eminence called Puu Nanaihawaii, where he says that Makalena set up his compass. From thence he says it runs to the site of an old heiau called Ka Ili o Lono, near which Papalua's house formerly stood, near the present road. Kaaiai, an old kamaaina, insane however, points out a pile of rocks nearly on a line between these two points called Kuanaipu, to which he says he guided Makalena. From the

[32] Register Book No. 153; copied from the collection of the State Survey Division.

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> Ili o Lono the line follows the old road to the neighborhood of Kaumalapau Harbor. The whole of the harbor belongs to Kamoku. Starting from the edge of the pali on the south side of the harbor, the line follows the ridge on the south side of Kaumalapau ravine till it meets the old road.[33]

Primary records in the Boundary Commission collection from Lānaʻi were recorded from 1876 to 1891. The records include testimonies of elder kamaʻāina who were either recipients of kuleana in the Māhele, holders of Royal Patent Land Grants on the island, or who were the direct descendants of the original fee-simple title holders, as recorded by the surveyors/commissioners. The resulting documentation covers descriptions of the land, extending from ocean fisheries to the mountain peaks, and also describe traditional practices; land use; changes in the landscape witnessed over the informants' lifetime; and various cultural features across the land.

The native witnesses usually spoke in Hawaiian, and in some instances, their testimony was translated into English and transcribed as the proceedings occurred. Other testimonies from Lānaʻi have remained in Hawaiian, untranslated, until development of a manuscript for the Lānaʻi Culture & Heritage Center.[34] Translations of the Hawaiian-language texts below were prepared by Kepā Maly. The descriptions and certificates of boundaries for the ahupuaʻa of Lānaʻi are from the notes of W. D. Alexander, who worked for the Boundary Commission. The notes, dated 1875-76, give boundary information collected from kamaʻāina. The following are excerpts from Alexander's notes.

At Halepalaoa March 28th, '76.

> Hoa, an old Kamaaina states that the boundary between Kaohai and Paawili begins at the inlet of the sea a little south of the Church, & thence follows the bottom of the kahawai to the top of the mountain.
>
> Kaumalapau & Kalama are both Ilis of Kamoku. Three lands run across from sea to sea, viz., Palawai, Kalulu, & Kaunolu…
>
> **April 3rd. 76. Monday.**
>
> Keliihue widow of Nahuina, was born on Kalulu, & testifies that the boundary between Kalulu and Kamoku comes down from a hill known as Puunene down the North bank of the Kapano valley to the Govt. road, passing near Kawaonahele's house, keeping straight on across a side ravine coming in from the north, called Keaaku, to the top of the north wall of the Palawai crater at a ¯ place called Pulehuloa, near Keliihananui's house.
>
> **Kamoku**
>
> Thence it skirts to the northwestern slope of the crater till it meets the old road to the sea, which it follows down to Kaumalapau Harbor.
>
> Papalua another old resident agrees with the above in the main, but declares that from Pulehuloa the boundary runs to a rocky eminence called Puu Nanaihawaii, where he says that Makalena set up his compass.

[33] W. D. Alexander, "Lanai (Memo.)," 1875–1876, Register Book No. 153, p. 14–24.

[34] See http://www.lanaichc.org.

> From thence he says it runs to the site of an old heiau called Ka Ili o Lono, near which Papalua's house formerly stood, near the present road. Kaaiai, an old kamaaina, insane however, points out a pile of rocks nearly on a line between these two points called Kuanaipu, to which he says he guided Makalena.
>
> From the Ili o Lono the line follows the old road to the neighborhood of Kaumalapau Harbor. The whole of the harbor belongs to Kamoku. Starting from the edge of the pali on the south side of the harbor, the line follows the ridge on the south side of Kaumalapau ravine till it meets the old road.[35]

Below is a letter from M. D. Monsarrat, a surveyor, to W. D. Alexander dated 1877. There is some description of Monsarrat's process, as well as the areas of Lānaʻi which he has already surveyed.

> **Palawai, Lanai**
>
> Since writing my last letter I have found an old Kamaaina by the name of Pali who has been absent for some time. He gives his age at ninety nine and is pretty helpless as I had to lift him off and on his horse. I could not get him to come for less than two dollars a day but I think that he is worth it as he seems to be very honest. He puts Kamoku boundary the same as Keliihue and not wrongly as Papalua did.
>
> I have surveyed Kaunolu boundary on this side of the mountain, also both sides of Palawai from the top of the mountain to the South wall of Palawai crater from there to the sea. I will leave until I return from the other side of the mountain, where I intend starting early Monday morning. Don't you think that I had better survey the boundary between the government land of Kamao and Kaohai which is very short and will survey with Paawili on the upper side of the island to Palawai form a survey of Kaohai. I have started to carry a set of triangles around from Puu Manu to Halepalaoa and find that it can be done with little effort and few triangles. When I was in Lāhaina Mr. Gibson spoke of having me stop here and complete the survey of the island as he is very anxious for a map.
>
> It is beginning to get very dry here and water scarce. Potatoes are also very scarce and expensive. Pai ai are a dollar apiece in Lāhaina now having jumped from seventy five cents since I came over…
>
> As soon as I finish Kaunolu I will send you the notes of survey as the minister of interior is very anxious to get them. Mr. Gibson is going to start his men shearing at Palawai in a few day[s]. Hoping to hear from you soon. I remain yours.[36]

The following Boundary Commission document gives testimonies of the surveyor Monsarrat, as well as the *kamaʻāina* Pali on the boundaries of lands on Lānaʻi. Pali states that he was the konohiki of Kamoku.

[35] W. D. Alexander, LANAI (Memo.), 1875–76, Register Book No. 153, p. 14–23. Pages 1–13 in this book contain memos and maps of land holdings at Nuʻuanu, Oʻahu. Lānaʻi notes begin at page 14. Alexander also uses macron accents on certain place and people names as indicated in the citations here.

[36] M. D. Monsarrat (Surveyor) to W. D. Alexander (Surveyor General), June 2, 1877, Hawaiʻi State Archives, DAGS 6 Box 1 - Survey.

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Hooponopono Palena Aina a ke Komisina

Ma ka la 14 o Julai, a.d. 1877, ua waiho mai o Prof. W.D. Alexander he palapala noi i ke Komisina Palena Aina o Maui, no ka hooponopono ana i na palena o kahi mau aina i pau i ka Anaia o ka Mokupuni o Lanai. Oia hoi o "Palawai" no W.M. Gibson Esq. "Kaohai" no Ka Mea Kiekie R. Keelikolani; "Kalulu," "Kamoku," he mau Aina Lei Alii; "Kamao," "Kealia," "Pawili," & "Kaunolu," he mau Aina Aupuni.

Ma ka la 17 o Sepatemaba, A.D. 1877, ua noho ka Aha a ke Komisina e hoolohe no ke noi maluna'e. O M.D. Monsarrat (Hope Ana Aina Aupuni) ka mea i hiki mai ma ka aoao o ka mea noi. A no ka mea hoi nana no i Ana ia mau aina apau. A ua hoomana pu ia mai no hoi oia e Jno. O. Dominis e lawelawe imua o ke Komisina ma na mea e pili ana i na Aina Lei Alii ma Lanai.

Hoohikiia a olelo mai:

Na'u no i Ana keia mau aina a pau; ua hele pu au me na kamaaina ma na palena apau o keia mau Aina. A ua lokahi lakou apau, ua pono, a ua pololei ka'u ana ana. O Rev. N. Pali ko'u alakai nui nana i kuhikuhi, a ua make iho nei kekahi. No ka hiki ole ana mai o Pali i keia la, ua hoopono ka Aha a hiki mai oia noho hou.

Ma ka la 30 o Sepatemaba 1877, ua hiki mai o Pali, a ua noho hou ka Aha. Hoohikiia o Pali a olelo mai:

O Pali au, he kamaaina au no Lanai, na ko'u mau makua i kuhikuhi mai ia'u. A no ko'u noho konohiki ana hoi malalo o Kauikeaouli maopopo loa ia'u na palena. Noho Konohiki au no "Kalulu," "Kamoku." He mau aina Aupuni o Kamao, Kealia, Pawili, ame Kaunolu. Maopopo loa ia'u.

Decision of Boundaries by the Commission

On the 14th day of June, A.D. 1877, Prof. W.D. Alexander, set before the Boundary Commissioner of Maui, an application to Certify the boundaries of several lands which have all been surveyed on the Island of Lanai. They being, "Palawai" of W.M. Gibson Esq. "Kaohai" of Her Highness R. Keelikolani; "Kalulu" and "Kamoku," Crown Lands; "Kamao," "Kealia," "Pawili," & "Kaunolu," Government Lands.

On the 17th day of September, A.D. 1877, the Commission convened to hear the above applications. M.D. Monsarrat (Assistant Government Surveyor) was present on behalf of the applicant. Also as the one who Surveyed all of the lands. Jno, O Dominis was authorized to bring the matter forward to the Commission by those adjoining the Crown Lands on Lanai.

Sworn and stated:

I surveyed all these lands; I went along all the boundaries of these lands with natives. They were all in agreement, My surveys are correct and true. Rev. N. Pali was my primary guide, he pointed out things, others have since passed away.

Because Pali did not arrive this day, the Commission moved Await his arrival before reconvening.

On the 30th day of September, 1877, Pali arrived, and The Commission reconvened. Pali Sworn and stated:

I am Pali. I am a native of Lanai, my parents pointed them (the boundaries) out to me. And as a result of my having been Land overseer under Kauikeaouli, the boundaries are known to me. I was the Konohiki of "Kalulu" and "Kamoku." Kamao, Kealia, Pawili, and Kaunolu are Government lands. I know them well.

Palawai Ahupuaa, Island of Lanai, Boundary Commission Volume No. 1, p. 108–110, No. 34, Keena Kiaaina o Maui, Lāhaina, September 17, 1877.

Translated by Maly.

The following is a decision by the Commissioner of Land Boundaries recorded by the Boundary Commission.[37] It certifies the land boundaries of Lāna'i as determined by the survey of Monsarrat. The translation is by Kepā Maly.

Olelo Hooholo

Ke hooholo nei au. O na palena o na aina apau ma Lanai i anaia e M.D. Monsarrat, oia hoi o "Palawai" no W.M. Gibson, "Kaohai" no ka Mea Kiekie R. Keelikolani, "Kalulu" a me "Kamoku" he mau aina Lei Alii ame "Kamao," "Kealia," "Pawili" & "Kaunolu" he mau aina Aupuni, e like me na ana pakahi i hoikeia maloko nei, ua pono a ua pololei.

Kakauia ma Lāhaina i keia la 30 o Sept. 1877.

Komisina P. A. Apana Elua, ko H. P. A.

Decision

I hereby move. The boundaries of all the lands on Lanai, surveyed by M. D. Monsarrat, they being, "Palawai" of W. M. Gibson, "Kaohai" of Her Highness, R. Keelikolani, "Kalulu" and "Kamoku" Crown Lands, and "Kamao," "Kealia" [Aupuni], "Pawili" & "Kaunolu," being Government lands, as uniformly surveyed and given within, are right and correct.

Signed at Lāhaina, this 30th day of Sept. 1877.

Commissioner L. B., Second District, of the H. I.

The following are the metes and bounds of Kamoku Ahupua'a as surveyed by Monsarrat.

Commencing at a pile of stones over a cross cut in a large stone on South side of Kaumalapau Harbor on edge of gulch. The boundary runs:

1. N 86° 27' E true 3254 feet along Kalulu up South edge of gulch to a stone marked with a cross on edge of gulch a little above a branch that comes into the main gulch from the South. Thence:
2. N 88° 46' E true 5225.9 feet along Kalulu, up South edge of gulch to a cross cut in a stone on South edge of same. Thence:
3. N 84° 40' E true 2594 feet along Kalulu to head of gulch. Thence:
4. N 72° 43' E true 2080 feet along Kalulu to a cross cut in a stone amongst a lot of stones at the former site of an old Heiau called "Ili o Lono." Thence:
5. N 46° 19' E true 10144.4 feet along Kalulu up road to a point a little North of a cactus clump marked by two triangular pits.
6. N 65° 44' E true 4939 feet along Kalulu along North edge of crater to a red wood post on the North wall of the crater at a place called Pulehuloa near Keliihananui's house.
7. Thence along Kalulu down across a small ravine (coming in from the North called Keaaku) to Government Road and up the N.W. edge of the Kapano valley, passing near Kawaonahele's house to a point on ridge marked with four triangular pits and ditch thus;

[37] Boundary Commission Volume No. 1, Palawai Ahupua'a, Island of Lanai, p. 113.

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said point being a little east of Puu Nene and bearing N 44° 53' E true 8052 feet from above mentioned red wood post. Thence:

8. N 45° 49' E true 1067.9 feet along Kalulu across valley passing to the S. E. of a water hole called Kaiholena to a red wood post on ridge that comes down from the central mountain range. Thence:
9. N 62° 37' W true 6742.5 feet along Paomai down above mentioned ridge and across valley into a small ridge and down said ridge to a red wood post at end of same.
10. S 84° 37' W true 1316.8 feet along Paomai to a cross cut in a stone.
11. . S 74° 8' W true 6258 feet along Paomai passing to the North of a couple of Hala clumps to two Triangular pits at an old house site.
12. S 74° 07' W true 3045 feet along Paomai to a cross cut on a stone at head of gulch.
13. N 86° 6' W true 1368 feet along Paomai down South side of gulch.
14. S 83° 45' W true 1455 feet along Paomai to a cross cut in a stone.
15. S 74° 9' W true 920 feet along Paomai.
16. N 55° 12' W true 898 feet Paomai across gulch to a red wood post a little West of a cactus clump; here ends the Crown land of Paomai. Thence:
17. S 65° 58' W true 1617 feet along Kaa down North side of gulch to a cross on a stone.
18. S 64° 57' W true 2040 feet along Kaa down North side of gulch to a cross on a stone. Thence:
19. S 70° 33' W true 3590 feet along Kaa to a point 10 feet East of a large rock with cross cut on it. Thence:
20. S 68° 53' W true 1664 feet along Kaa to Sea Shore. Thence:
21. S 1° 55' W true 13460 feet along sea shore to point of Commencement.

Area 8291.09 Acres.

Surveyed by M.D. Monsarrat, Assistant

Hawaiian Government Survey

Lanai. June 1877.[38]

An Interior Department letter from 1878 gives a list of the lands and length of coastline of Lānaʻi. It states that Kamoku, a crown land, has 1.54 mi. of coastline.[39]

The following is a series of correspondence regarding Walter M. Gibson's desire to lease government lands on Lānaʻi. The first is a letter written by Gibson in which he first expresses his desire to lease Lānaʻi land.

[38] Kamoku Ahupuaʻa, District of Lāhaina, Island of Lanai, Boundary Commission, Maui, Volume No. 1, p. 114–115. No. 37—A. Survey of the Crown Land of "Kamoku" Lanai.

[39] Hawaiʻi State Archives, Interior Department Letter Book, Vol. 15:110.

On March 23, 1866, Walter M. Gibson applied to the Minister of the Interior, F. W. Hutchinson, for a lease on the government lands on Lānaʻi, including lands in Kamoku. With his application, Gibson submitted a sketch map, included here as Figure 7.

> In compliance with your request I have the honor to lay before the Department, a statement respecting Government lands on Lanai.
>
> There are six ahupuaas of land belonging to Government on the island, named: Kamao, Paawili, Kealia, Kalulu, Kaunolu, and Kamoku; comprising about 24,000 acres, with a population of 80 persons. About one eighth of this surface is good arable "dry" land; perhaps one half is more or less adapted for grazing; and the remaining three eights, the portion bordering on the beach, an utter barren waste.
>
> I made application to the Department in October 1862 to lease all of these lands. My application was favorably entertained by the Department, but owing to want of proper surveys, a lease was not made out at the time, as I was informed by letter, written by authority of His Majesty, then Minister. A copy of this letter, dated Feb. 20th, 1863 is enclosed.
>
> Feeling myself fortified by a guarantee from the Department, I proceeded to make improvements; to enclose lands with stone wall, to make roads, construct dwelling for laborers, and cultivate on the Government lands, until my operations were interrupted by a lease of Kamoku, the most important of these lands, by the Department, to another party. I had expended much labor on Kamoku, which was thus rendered fruitless.
>
> However, I would still propose to the Government to lease the five lands, Kamao, Paawili, Kealia, Kalulu, and Kaunolu. They are now mere commons, upon which roam many thousand head of sheep and goats that do not yield one cent of revenue to the Government…
>
> Accompanying this, a rough draft map of Lanai.[40]

[40] Hawaiʻi State Archives, Interior Department Lands.

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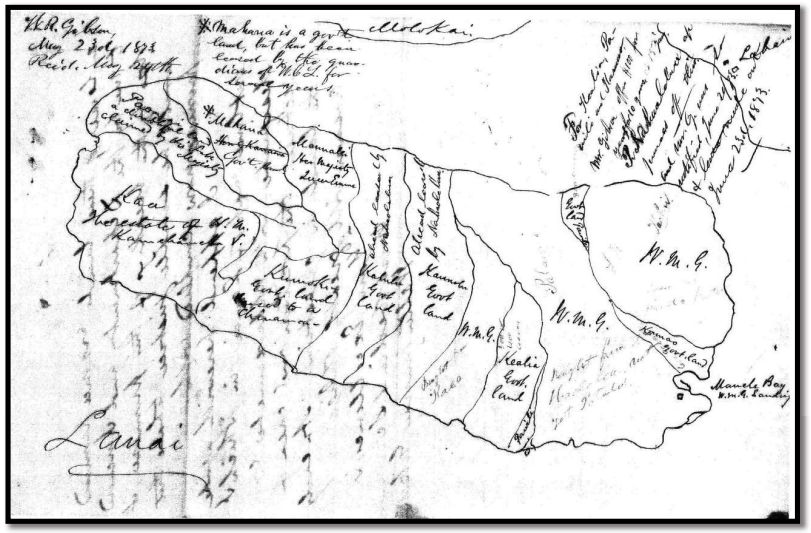

Figure 7. 1866 sketch map of Lānaʻi (W.M. Gibson, Hawaiʻi State Archives)

Six months later, on September 18, 1866, Gibson applied again to the Minister of the Interior.

> I beg to be informed if the Government lands in this island have been rented or leased. A certain number of natives whom I opposed in their destruction of the little shrubbery of the island, in order to make charcoal, assert that the land is in their possession, and have attempted to subject me to a great deal of annoyance.
>
> I cannot believe in the truth of their assertion that such a lease has been made, in view of the pledge given to me by your predecessor in office, his Majesty.
>
> I am not at all anxious to lease all the Government lands on Lanai. The bulk of these lands, comprised in the districts named Kaunolu, Kalulu and Kamoku, can be better utilized by the native residents at present, and I should waive any pretensions I may have in respect to them; but the smaller lands of Kamao, Paawili, and Kealia, which comprise about one fourth of the Govt. lands, I desire to lease, as they adjoin my own lands.
>
> Your Excellency will observe in the rough draft map I left at the Interior Office, that the lands of Pawili and Kealia are enclosed between my lands of Palawai and Kealia Kapu. Kamao is a barren corner, lying between my lands Palawai, and the leased land Kaohai. There are not more than half a dozen families residing on these

> small lands, and little or no stock upon them, and they may be properly detached from the bulk of the Govt. lands on the Western half of the island, where the chief part of the population resides.
>
> I trust that some equitable adjustment of these lands will shortly be made, and I beg to be notified respecting any contemplated disposal of them by lease or otherwise…
>
> P.S. It is proper to mention that I have made improvements on Kamao, Pawili, and Kealia, and it would be an act of gross injustice were I to be dispossessed of the advantages to be derived from them, without being allowed a proper opportunity to enter into competition for leasing the lands upon which the improvements are situated, especially in view of the solemn pledge given me by the Interior Department.[41]

The following correspondences detail the matter of leasing government lands on Lānaʻi to Gibson. The first is from Chas. T. Gulick, Interior Department clerk, to P. Nahaolelua, the governor of Maui and regards the receipt of Gibson's application. The attached sketch mentioned is included here as Figure 8.

Ua loaa mai i ke Keena nei, he palapala noi na Walter Murray Gibson (Kipekona) e makemake ana e hoolimalima i ke kahi mau Aina Aupuni ma Lanai. Eia ko lokou mau inoa: Kamao, Pawili, Kealia Aupuni, Kaunolu ame Kalulu. I ke wa ia L. Kamehameha ke Kalaiaina, ua ae mai no oia iaia no ka hoolimalima i ua mau aina nei, a mahope iho o kona pa ana a me ka hana ana i ke kau wahi pono maluna o ka aina, aka, i kona noho alii ana, ua hoonele ia, ua o Kipekona. Ua waiho pu mai no hoi o Kipekona i ka palapala a Stephen Spencer, ke kakauolelo a ke Kuhina Kalaiaina e hooia aku ana ia Kipekona i ka ae ana o ke ʻlii, oiai kona wa e noho ana ma ka Oihana. E nana iho oe iloko o keia hana a e hoike koke mai i kou manao e pili ana no kana noi. Ke hooili ia aku nei he kii, e hoomaopopoana i ka waiho ana o na Aina. Aole no he kii pololei loa aka ma ke ano nui no nae.

There was received at this Office, an application from Walter Murray Gibson (Kipekona), desiring to lease some of the Government Lands on Lanai. Here are their names: Kamao, Pawili, Kealia Aupuni, Kaunolu and Kalulu. At the time that L. Kamehameha was the Minister of the Interior, he agreed to lease the lands to him, should he build the walls at appropriate places on the land. But when he became King, Gibson was deprived of the right. Gibson has sent the application to Stephen Spencer, secretary of the Minister of Interior, who confirms that the King agreed to it when he was in the office. Will you please look into this and tell me what you think about this request. There is attached, a sketch that shows the location of the lands. It is not an accurate sketch but gives a general rendering.

Hawaiʻi State Archives, Interior Department Book, Volume 12:251–252.
Translated by Maly.

[41] Hawaiʻi State Archives, Interior Department Lands.

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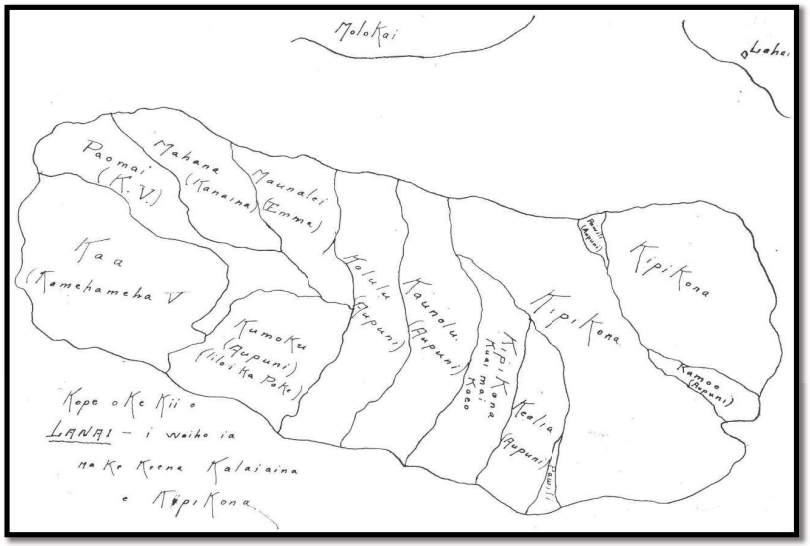

Figure 8. 1873 sketch map depicting disposition of lands of Lāna‘i (W. M. Gibson, Hawai‘i State Archives)

Governor Nahaolelua replies to Gulick with the following, dated May 28, 1873, which essentially asks that the lease request by Gibson be denied so as not to deprive the natives of access to the lands. Nahaolelua plainly expresses that Gibson is an untrustworthy individual. Gibson had claimed no more than a half-dozen families resided on the lands; however, Nahaolelua says that “quite a number of natives” live on the lands, who would thus be dispossessed should Gibson acquire the lease.

Ua loaa mai ia‘u kau palapala o ka la 26 o nei malama e pli ana i ka Palapala noi a W. Gibson “e hoolimalima kekahi mau aina ma Lanai” eia ko lakou mau inoa, Kamao, Pawili, Kealia, Kaunolu, ame Kalulu.

A ke olelo mai nei i ka wa ia L. Kamehameha ke Kalaiaina, ua ae mai oia ia aina ka Hoolimalima i ua mau aina nei, ua pololei kela mau olelo, maanei au e hoakaka ai ina kumu i nele ai o Gibson i ua mau aina nei i i ka wa i noho Moi iho nei of Kamehameha V.

I received your letter of the 26th day of this month, relative to the application of W. Gibson, “to lease some lands on Lanai,” these being their names, Kamao, Pawili, Kealia, Kaunolu and Kalulu.

And that during the time that L. Kamehameha had the Interior, he had consented that he was to get the lease of said lands. That statement is true. Here I will explain the reasons why Gibson was refused said lands during the time that Kamehameha V was King.

Ua lohe ka moi ina hana a W. Gibson, ma ia hope mai. Eia ka mua, Puhi ae la o Gibson i ke ahi a pau loa aku ka mauu o ka aina i ka a ia e ka ahi. A olelo iho la o Gibson i kanaka o Lanai he mea waiwai ole ka Hanai holoholona, o ka mahiai oia ka mea waiwai o ka aina a a he mea hooikaika no hoi ia i ke kino o ke kanaka a he mea no hoi ia e nui ai ka hanau ana a na keiki. Ia lohe ana o kanaka ia mau olelo lawe aku la lakou ina hipa e kuai me Gibson he mahina hookahi a oi ae paha nui loa na Hipa a Gibson, aka aole i mahiia ua wahi nei i pau i ke ahi, ua lohe Moi i keia hana Gibson.

Eia kekahi ua olelo o Gibson i na Hoa hanau o ka Hoomana Molemona e lawe mai i ko Kauai, ko Oahu, Molokai, Maui, Hawaii i no Dala no ke kuai ana i ka aina ma Lanai ia Palawai, no ka Ekalesia ka olelo ana a Gibson no lakou ua aina nei, aka i ka hana nae, o ka Palapala Kuai o ua aina nei o Palawai, o ka inoa wale no o Gibson kai kakauia ma ka Palapala Kuai ame kona Hooilina. Nele iho la ka Ekalesia Molemona, ma keia mau hana akamai a Gibson i haule malna o ka Lahui Hawaii.

Ua komo ka manao kanalua iloko o ka Moi no ka haule ana iho o keia mau pilikia maluna o kekahi o kona mau makaainana oia ke kumu i nele ai o Gibson i ka aina ole.

Eia kekahi hana akamai a Gibson i hana mai e ka poe o Lanai. Kuai iho nei o Gibson i ka aina ia Kaa a lilo ia ia kukulu aku nei i ka Pa i ua aina nei o Kaa. Lawe aku nei ka Hipa ana i Kaa mai Palawai aku pau pu aku nei me ka hipa a Kanaka, a komo iloko o ka Pa o Kaa a noho ilaila. Elua paha pule, lawe hou mai Kaa mai a hiki i Palahai, hui hou me ka Hipa a kanaka a komo hou iloko o kela pa, ike aku nei kanaia i ka lakou aia iloko o ka Pa me ko lakou Hoailona, kii aku nei e hoihoi mai, olelo maikai mai la no o Gibson, pela iho. Pilikia wau i keia manawa e holo ana wau i Lāhaina a hiki keia i Lāhaina nei, a hala kekahi mau la holo aku la kela i Honolulu a hala kekahi mau la malaila a hoi maila kii aku la ka mea hipa a

The King had heard after that what Gibson had done. This is the first: Gibson set fire to the grass on the land and was all burnt up by the fire, then Gibson said to the natives of Lanai, that there was no benefit from raising animals, that farming is what will enrich the land, and will make the body of the person strong, and would be the means of having a lot of children born. When the natives heard these words, they took their sheep to sell to Gibson, and in one month and a little over, Gibson had plenty of sheep, but the place which had been burnt was not cultivated, the King heard of these doings of Gibson.

Here is another, Gibson told the members of the Mormon Religion on Kauai, Oahu, Molokai, Maui, and Hawaii, to secure money to buy land on Lanai, that is Palawai. Gibson said it was to belong to the Religion and to be their land, but when the deed of said land of Palawai was made out, only Gibson’s name was written on the deed, and to his heirs. The Mormon Religion had nothing. Because of these smart doings of Gibson, and which fell upon the Hawaiian Nation, doubt was entered into the King’s mind of this distress having fallen on some of his subjects, that is the reason why Gibson was without any land.

Here is another smart doing of Gibson which was reported by the people of Lanai. Gibson bought the land of Kaa, and it be came his, a pen was built on said land of Kaa, then he took his sheep to Kaa from Palawai, the native sheep went too, and entered the pen at Kaa and remained there about two weeks. Then they were taken again from Kaa to Palawai, they mixed again with the natives’ sheep and again entered that pen. The natives saw that theirs were inside the pen, having their marks. They went after them to bring them back. Gibson said very nicely to them, wait a while, I am busy now, I am going to Lāhaina. And when he got to Lāhaina, and some days passed, then he went to Honolulu. And after some days were passed

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hookuuia maila na makua ale no ka mea i hoailonaia a o na keiki paa aku iloko ka Pa, aka aia no i Lanai ka poe i ike ia Gibson i ka hana penei.

Nolaila he hai wale aku no keia i koʻu manai, aole kupono keia Hoa Hoolimalima ke aeia mai nae keia olelo a ka mea iaia ka mana o keia hana oia hoi o ke Kuhina Kalaiaina "E. O. Hall." A he nui no ka poe kanaka o Lanai e noho ana maluna o keia mau aina, aka he mahalo au ia Gibson i ka hana akamai.

there, he came back. The owner of the sheep went to get his, and only the parent sheep which had the mark was released, and the ewes were kept in the pen. But, they are still on Lanai who saw Gibson doing this.

Therefore, I am only letting you know what I think, that the lease to this fellow is unsatisfactory. If this report, however, is acceptable to the one in authority over such matters, that is, the Minister of the Interior, "E.O. Hall." And there are quite a number of natives living on these lands. But I do admire Gibson for being so smart.

Hawaiʻi State Archives, Interior Department Lands
Translated By Maly.

Governor Nahaolelua writes again to Gulick on June 5, 1873.

Ua loaa mai iaʻu kau palapala o ka la 2, o June nei, ua ike au i na mea i haiia mai. He nui io no ka poe e noho ana ma kekahi o keia mau aina o Kalulu, ame Kaunolu, a ma Pawili kekahi mau mea, a o Kamao ame Kealia, aole maopopo loa ia iaʻu, no ka mea ua ano huikau ko lakou noho ana.

A ma ka ninau hoi no ko lakou mau kuleana a noho hoolimalima paha, he kuleana no kakahu poe o lakou, aka he kuleana liilii no.

Nolaila, ua hoolimalima no kakou i ua mau aina nei me ke Aupuni mamuli no nae o ke Kauoha a ke Kuhina Kalaiaina iaʻa e like no me keia manawa. A no kaʻu mau wahi holoholona o wau no kekahi i uku ia Hoolimalima ana.

Iloko oia hoolimalima ana, ua hookaa pono no kanaka ina makahiki Eha, a i ka lima o ka makahiki, ua koe nae $265. i kaa ole mai, a o ka nui o na Dala i kaa mai $1735.00. Oia iho la ka loaa ame ke koena.

Ina no e lilo o Kalulu ame Kaunolu ia Gibekona a kahi no ia i lehulehu ai ona kanaka, aole no he nui loa o na kanaka ma Lanai, oia wale no kaʻu mea hai aku.

Your letter of the 2nd day of June was received, and I note what is said. It is true that there are quite a number of persons living on some of these lands of Kalulu and Kaunolu, and there are some on Pawili, and I am not quite familiar with Kamao and Kealia, because their living together is rather mixed up.

As to inquiry about their awards or occupancy under lease. Some of them have awards, but they are small ones. Therefore, they leased these lands from the Government but under the instructions of the Minister of the Interior to me, the same as now. And about my animals, I too have paid towards said lease.

During that lease, the natives paid properly for four years, and during the fifth year, there was a balance of $265. which remained unpaid. The amount of money that was paid was $1735.00 that is the receipts and the balance.

If Kalulu and Kaunolu are given to Gibson, those are the places where there are a number of natives. There are not very many natives on Lanai. That is all I wish to tell you.

Hawaiʻi State Archives, Interior Department Lands

Translated by Maly.

Governor Nahaolelua writes the following to the Minister of the Interior, E. O. Hall, on June 13, 1873.

Ua loaa mai iaʻu kau palapala, ua ike au ina olelo i haiia mai. E pono nae e helu aku au ia oe ina aina o Lanai a pau: Pawili, Kamao, eha Kealia, Kaunolu, Kalulu, Kamoku & Paomai, pau na aina aupuni a lilo aku la ia Gibesona, Eono aina, a koe iho la Ekolu aina.

Aka, ua pono iho la no ia e like me ka mea i holo ia oukou, a o ka uku Kupono i koʻu manai oia mau aina eono, Elua Haneri Dala i ka makahiki, a o na aina hou i koe no ka hoolimalima mua, Elua Haneri ia. Oia koʻu manao…

I received your letter, and noted what is said therein.

I have better give you a list of all the lands on Lanai: Pawili, Kamao, four Kealia, Kaunolu, Kalulu, Kamoku & Paomai. These are all the Government lands, and Gibson has acquired six lands, and three lands remain.

But it is all right according to what have been decided by you people. And the proper rent for these six lands, according to my belief, is Two Hundred Dollars per annum, and for the remaining lands for the first lease Two Hundred. That is what I think.

Hawaiʻi State Archives, Interior Department Lands.
Translated by Maly.

E. O. Hall responds to Governor Nahaolelua on June 16, 1873 with the following letter, which proposes a rental rate to be paid by Gibson for government lands on Lānaʻi.

Ua loaa mau kau palapala o ka la 13 o Iune nei. Me neia na manao o ke ʻLii a me na Kuhina, no na aina ma Lanai.

O na aina o Kaunolu a me Kalulu, no na makaainana ia mau aina, a nau no e ohi i na dala, e like ma na makahiki i hala.

O na aina o Kealia, Pawili 2, a me Kamao, e hoolimalima ia Gibesona no na dala $100.00 i ka makahiki. Pehea ia?

O ka aina o Kamoku, ua lilo i ka Pake; pela kuu lohe. Pehea? Ehia mak. ka lilo ana, a ehia dala i ka mak.

O ka aina o Mahana, he aina aupuni ia. Ia wai la ka lilo ana i keia manawa? Ua manao ia C. Kanaina. Aole ka.

O Paomai, ua ninau no wau ia oe no keia aina. E pane mai, ke oluolu oe…

Your letter of the 13th of June, has been received. This is the opinion of the King and the Ministers, regarding lands of Lanai.

The lands of Kaunolu and Kalulu, the residents shall occupy those lands, and that you collect the rent of same, as had been the custom for the past years.

The lands of Kealia, Pawili 21 and Kamao, shall be leased to Gibson at $100.00 a year. How about that?

The land of Kamoku is occupied by a Chinaman, so I hear. How many years was it leased for, and how much a year?

That land of Mahana is a Government land. Who is occupying it at the present time? It was thought that C. Kanaina had it. It is not so.

As to Paomai, I have already inquired of you in regard to this land. Would you kindly reply…

In the context of the land description it appears that Pawili 2 is the section of Pāwili that runs into the basin, between Pālāwai and Keālia Aupuni. Based on surveys and testimony, this section of

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Pāwili crosses from windward to leeward Lānaʻi, but on the leeward side is cut off from the coast near the ʻEhoʻehonui boundary marker.

Hawaiʻi State Archives, Interior Department Book, Volume 12:276.
Translated by Maly.

Then, in 1899, after the death of Gibson, Gibson's estate trustee Cecil Brown wrote to J. F. Brown, the Commissioner of Public Lands, to extend the lease of government lands of Lānaʻi.

> Cecil Brown Administrator and Trustee of the Estate of W.M. Gibson, deceased, with the Will annexed. Hereby makes tender the surrender to the Hawaiian Land Commission, leases held by the Estate of W.M. Gibson of Government lands as follows to wit on condition hereafter stated.
>
> 1. Lease No. 168 of the lands of Pawili, Kamao and Kealia Aupuni Rental $150.00 per Annum. Expires June 23rd, 1908.
> 2. Lease No. 220 Lands of Mahana, Rental $100.00 per Annum. Expires November 1st, 1907.
> 3. Lease No. 279 Land of Kaunolu, Rental $250.00 per Annum. Expires February 9th, 1907.
>
> Also the land of Kalulu as tenant at will, Rental $200.00 per annum.
>
> The Estate paying for the four leases $700.00 per annum.
>
> It is hereby proposed to surrender the said leases provided a new lease will be granted for the whole area of lands in said four leases be granted to the Administrator of said Estate of W.M. Gibson at an annual rental of Twenty Five Hundred ($2500.00) Dollars for a term of lease of Twenty One years from date hereof.
>
> To be granted without Competition.

J. F. Brown writes to Sanford B. Dole, proposing that grazing and sugarcane cultivation might be possible on the lands leased to the W. M. Gibson Estate in the following letter, dated March 9, 1899.

> Enclosed please find copy of an application on behalf of W.M. Gibson Estate for surrender and for releasing of certain Public Lands held by Gibson Estate on the Island of Lanai.
>
> The total area concerned in this application is about 29,341 acres.
>
> The larger part of this is grazing and mountain land but a portion on a rough estimate not less than 2000 acres might be adapted to cane growing if supplied with water. This area of 2000 acres, say below 600 feet level, would be found on the lands of Mahana, Kaunolu and Kalulu named above, these being on N.E. side where plantation site is proposed. The lands of Paawili, Kamao and Kealia may or may

> not be included in proposed plantation site. If so included, the possible cane area would be largely increased. I do not understand that any authority exists under the law for the lease without competition asked for by applicants, but for the satisfaction of applicants who desire the matter to be brought before the Executive, I would respectfully refer the same to their opinion at a convenient early date.[42]

The document below conveys lands (fee-simple and leasehold), livestock, and personal property on the island of Lānaʻi from the Gibson Estate to Charles Gay, as ordered by court decision.

> This Indenture made this 28th day of August A.D. 1902, between Albert Barnes, Commissioner, of Honolulu, Island of Oahu, Territory of Hawaii of the first part, and Charles Gay of Makaweli, Island of Kauai, in said Territory, of the second part.
>
> Whereas, in proceedings duly taken in the Circuit Court of the First Judicial Circuit of said Territory at Chambers in Equity, by and between Gustave Kunst, designs of S.M. Damon, J.H. Fisher, and H.E. Waity, copartners under the firm name of Bishop & Company, Plaintiffs and H.N. Pain and Elise S. U. Neumann, sole devisee and Executive under the last Will and testament of Paul Neumann, deceased, and Henry Holmes, Trustee of Elsie S.V. Neumann, and S.M. Damon, S.E. Damon and H.E. Waity, copartners doing business under the firm name and style of Bishop & Company defendants to enforce the Decree of Foreclosure and Sale theretofore made and filed in the suit of S.M. Damon et al vs. Cecil Brown, Administrator with the Will annexed of Walter Murray Gibson and Trustees of the Estate of said Walter Murray Gibson, deceased, under said Will et al., it was ordered adjudged and decreed by an order made on the 24th day of June A.D. 1902 by the Honorable George D. Gear, Second Judge of the said Circuit Court that the said Decree of Foreclosure and Sale be enforced by a sale of all and singular the real and personal property and assets of the estate of the said Walter Murray Gibson, deceased, hereinafter set forth, and that the same be sold at public auction in said Honolulu at the front door of the Court House (Aliiolani Hale), by and under the direction of the said Albert Barnes, who was by said Decree appointed a Commissioner to sell the said property and was duly authorized to give public notice of, make arrangements for and conduct the sale as set forth in said order.
>
> And whereas, the said Commissioner, pursuant to the said order and direction, after giving public notice of the time and place of sale as in said order required did, on the sixteenth day of August A.D. 1902, at the front door of the Court House (Aliiolani Hale) in said Honolulu expose to sale at public auction all and singular the said premises and property with the appurtenances at which sale the said premises and property hereinafter described were sold to the said Charles Gay for the sum of One Hundred and Eight Thousand Dollars ($108,000.00) that being the highest sum bid for the same, and Whereas the proceedings of said Commissioner in the premises were duly reported to the said court, and the sale approved and confirmed on the 25th day of August A.D. 1902, as by the records of said court more fully appears, and the said Commissioner was thereupon by an order of said

[42] FO & Ex. 1899 Pub Lands Comm.

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court then made, directed to execute to said Charles Gay a conveyance of said premises and property, pursuant to the sale so made as aforesaid…

And the said Albert Barnes, Commissioner, as aforesaid, doth hereby covenant with the said Charles Gay and his heirs and assigns that notice of the time and place of said sale was given according to the order of said Court, and that the said premises and property were sold accordingly at public auction as above set forth.

Schedule "A"

Fee Simple.

First. All that tract or parcel of land situate on the Island of Lanai, containing Five Thousand Eight Hundred and Ninety-Seven and 1-10 (5897, 1-10) acres, and known as the Ahupuaa of Palawai, and comprised in Royal Patent No. 1093…

Fourteenth. All that land described in Royal Patent 4767, L.C.A. 10041 conveyed by John S. Gibson to W.M. Gibson by deed dated July 17, 1876 of record in liber 47 fol. 49…

Leases

First. All leases of land on the Island of Lanai held by said Walter Murray Gibson on August 31st, 1887, so far as he had the right to assign the same without incurring any forfeiture…

Personal Property

First. All those flocks of sheep on the 20th day of June A.D. 1902 or thereabouts of mixed ages and sexes, on said day depasturing, running or being upon the said Island of Lanai and also all that herd of cattle and all horses on said 20th day of June, 1902, also depasturing and running upon the said Island of Lanai on said day, all formerly belonging to the Estate of Walter M. Gibson, deceased, together with all the natural increase of the said flocks and herds, and also all the wool, then upon the said sheep and which has since that time been produced and shorn from said sheep, and their said increase save and except such sheep, cattle and wool as have been sold with the consent of the said plaintiff.

Second. All wool presses, wagons, carts, harnesses, tools implements, chattels and effects belonging to said Walter Murray Gibson on said August 31st, 1887, situated on the Island of Lanai, at said time and now in and upon said lands or any of them.

The flocks of sheep and their increase are now estimated at about 18,000 head.

The herd of cattle with their increase are now estimated at about 240 head.

The herd of horses with their increase are now estimated at about 210 head.

In witness whereof the said Albert Barnes has hereunto set his hand and seal the day and year first above written.[43]

[43] Bureau of Conveyances, Liber 242, p. 91–95.

2.5 Ranching Operations on Lānaʻi, 1854–1951

Goats, sheep, cattle, the European boar, and horses were introduced to the islands between 1778 and 1810. During those early years, Kamehameha I and his chiefs placed kapu over the newly introduced animals to ensure that their populations would grow. In the fifty-year period from 1780 to the 1830s, populations of these non-native animals—like the hipa (sheep) and puaʻa bipi or pipi (wild steer or cattle), and kao (goats)—grew to become a great nuisance to the Hawaiian population, and had devastating effects on the Hawaiian environment.

Records indicate that the first of these introduced ungulates were brought to Lānaʻi around the 1830s, where a few native tenants, living under landed chiefs, managed the populations. In 1848, a new system of land management was instituted in the Hawaiian Kingdom, and individuals of means were granted large tracts of land. When fee-simple title to land was granted to native Hawaiians and foreign residents who had sworn oaths of allegiance to the king, formal efforts at controlling the hipa, pipi, kao, and other grazers were initiated.

Initially, Mormon elders brought livestock to Lānaʻi as a part of their effort to establish a mission in the uplands at Pālāwai. In 1862, Walter Murray Gibson took over the Mormon settlement, and focused the livestock efforts on herds of sheep and goats, of which nearly 100,000 roamed the island, almost uncontrolled by the 1890s. As a result, Lānaʻi suffered from rapid deforestation and a drying up of the island's water resources. This impacted every other aspect of life on Lānaʻi and was one of the contributing factors to the continual decline in the native population of the island.

2.5.1 Lanai Ranch at Kōʻele

During the early history of ranching on Lānaʻi, ranch headquarters were established in the Pālāwai Basin but in the mid-1870's they were moved to Kōʻele where they remained until the ranch was closed down in 1951 (Hammatt et al. 1988:23-36). The ranch manager's house at Kōʻele was built around 1880 for W.M. Gibson's daughter Talula and her husband, Fred Hayseldon, who managed the ranch until the end of the century when financial difficulties forced sale of the ranch. It was eventually bought up in fee by Charles Gay in 1902-1903. Shortly after moving into the ranch manager's house at Kōʻele in 1904, Gay established a laborer's camp behind the manager's house, moving plantation houses from a defunct sugar company camp at Keomoku. The reservoir that today serves as a water feature on the Lodge grounds was also constructed at that time. In 1908, it was estimated that half of Lānaʻi Island's population of 150 lived at Kōʻele.

From 1910 to 1951, Lānaʻi ranch operations focused on cattle and a steady decline in the population of other livestock. The steady transition to cattle grazing led to the eradication of tens of thousands of goats, sheep, and pigs—many driven over the cliffs of Kaʻāpahu in Kaʻā—in an effort to reduce impacts on the steadily decreasing pasturage. In 1914, the Maui News reported on a visit by rancher-investor J. T. McCrosson to Lānaʻi under the heading "Big Improvements on Lanai." McCrosson makes specific reference to the leeward pastures on the island, extending from the 150 ft. to 1,000 ft. elevation.

> I spent a week on Lanai inspecting the ranch. The lee side of the island is greener that it has been for years. The finest Pili grass pastures in the Territory extend in a broad belt the whole length of the island, from 150 feet above sea level to about 1000 feet elevation. The belt varies from a quarter to two miles wide. Up in the shallow crater that occupies the center of Lanai a good many hundred acres have

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been plowed and planted in Rhodes grass and Paspalum. It formerly took twenty acres of the wild pasture land to support a bullock. The Paspalum pastures now fatten fifty head of stock on every hundred acres.[44]

In 1929, L. A. Henke published *A Survey of Livestock in Hawaii* (1929), which included the following description of the Lānaʻi Ranch operations. Henke notes that a water line system and extensive fences were made on the island. Describing the basic ranching operations on Lānaʻi, Henke reported:

> The Island of Lanai, while primarily given over to the growing of pineapples since 1924, still has an area of 55,000 acres of fairly well grassed but rocky and rather arid country extending in a belt around the 55 miles of coast line of Lanai, that are utilized as ranch lands and carry about 2,000 Herefords and 180 horses. This belt is from two to four miles wide and extends from the sea to about 1,000 feet in elevation.
>
> The total area of the Island is about 140 square miles and it ranges in height from sea level to about 3,376 feet elevation, with an average annual rainfall on a great part of the uplands of about 34 inches.
>
> In 1922 before the upper lands were given over to the more profitable pineapples an area of some 2,000 acres had been planted to Pigeon peas (Cajanus indicus) and Paspalum dilatatum. On the lower, rather rocky, present ranch lands the algaroba tree (Prosopsis juliflora) is valuable because of its bean crop, and Koa haole (Leucaena glauca) and Australian salt bush (Atriplex semibaccata) are considered desirable forage crops. It is planned to further improve the lower pastures by additional planting of the above crops and by light stocking and resting present pastures.
>
> In the future the ranch will not do much more than raise beef and saddle horses for the pineapple plantation needs. The ranch, though a part of the Hawaiian Pineapple Company's property, still operates as the Lanai Company, Ltd.
>
> The Hawaiians formerly herded goats, probably for their skins on the uplands of Lanai, and some agricultural work was done by Walter Murray Gibson, who arrived in 1861, in connection with the Mormon Church. Gibson acquired considerable land and when he died in 1888 his daughter, Talula Lucy Hayselden, became the owner. Gibson and the Hayseldens developed a sheep ranch on the island, much of which was then owned by the Government and by W.G. Irwin.
>
> Irwin later acquired the Government lands and the Hayseldens about 1902 sold out to Charles Gay and nearly the whole island of 89,600 acres was combined under the ownership of Charles Gay, which passed to Irwin in 1910 and from him to John D. McCrosson and associates in the same year, when the Lanai Company, Ltd., was formed. Their interests were sold in 1917 to H.A. and F.F. Baldwin, who in turn sold the property to the Hawaiian Pineapple Co., Ltd., in December 1922, who are the present owners.

[44] *Maui News*, October 24, 1914, p. 5, c. 1.

> Mr. Gay continued with the sheep ranch started by Gibson and Hayselden, probably carrying as high as 50,000 at times, but when the Lanai Company, Ltd., was started in 1910 they changed to cattle and put in extensive provisions for water and fences, and a count in April 1911, gave 20,588 sheep and 799 head of cattle. At the end of 1920 there were only 860 sheep and early in 1923 a count showed that the number of cattle had increased to 5,536 and besides 4,462 had been sold during the previous five years. Reduction of the herd to make room for pineapples was started on a large scale in 1924, and from the end of 1922 to October 1928, 6,764 head of cattle were sold.
>
> Mr. Moorhead was manager for the Hayseldens, Mr. Gay managed his own property for a time, Lt. Barnard was manager for the Lanai Company in 1910, and G.C. Munro, the present manager, took charge in 1911. (Henke 1929:51–52)

A 1938 map of the ranch headquarters drawn up by the Hawaiian Pineapple Company shows the layout of the settlement at Kōʻele (Figure 9). It includes the manager's house and associated outbuildings, the ranch office, several garages, a stable with associated outbuildings, and a second house with a greenhouse and laundry. The laborer's camp consisted of a dozen houses, a club house, a bath house and laundry, and a toilet. Buildings 1053 to 1056 on the map would have been present within Parcel 1 and include a slaughterhouse, a hide house, a feed building, and pig pens associated with Building 1056.

Ranching was a part of Lānaʻi's history for close to 100 years, in the period from ca. 1854 until closure of the ranch in 1951. The ranch ended operations when the Hawaiian Pineapple Company decided to focus all its efforts on the pineapple plantation. The ranch manager's house was torn down a few years after the ranch closed and most other buildings were either demolished or moved from their original locations. This also includes any structures present in Parcel 2. When plans for building the Lodge at Kōʻele were implemented in the late 1980's, only two houses from the ranch headquarters remained, and were subsequently moved to the eastern portion of Parcel 2. The church, which stands today at a new location close to the road, was originally located north of the reservoir between the ranch manager's house and the laborer's camp.

2.5.2 Kōʻele Ranch Cemetery

One area of particular cultural-historical sensitivity is a small cemetery for Kōʻele Ranch workers and their families that was established in Paomaʻi Ahupuaʻa around 1875 during W. M. Gibson's tenure at Kōʻele. An earlier western-style cemetery at Kihamāniania, dating back at least to the 1830s, had previously served the purpose. Initially, burials in the Kōʻele Ranch Cemetery were either unmarked or were marked with perishable materials, but since 1935 many of the burials have been marked with headstones and stone or concrete monuments. The permanently marked burials were inventoried by HAPCo through at least 1980, (Figure 10), resulting in a record of more than 30 burials at the cemetery. The exact number of burials in the cemetery is not known. Unmarked burials before 1935 were not inventoried by HAPCo and the cemetery has remained active since it was last inventoried. Similarly, the boundaries of the cemetery have not been established (Hammatt and Borthwick 1989a:33-34) and it may be the case that the cemetery straddles the boundary between Paomaʻi and Kamoku.

REF-100

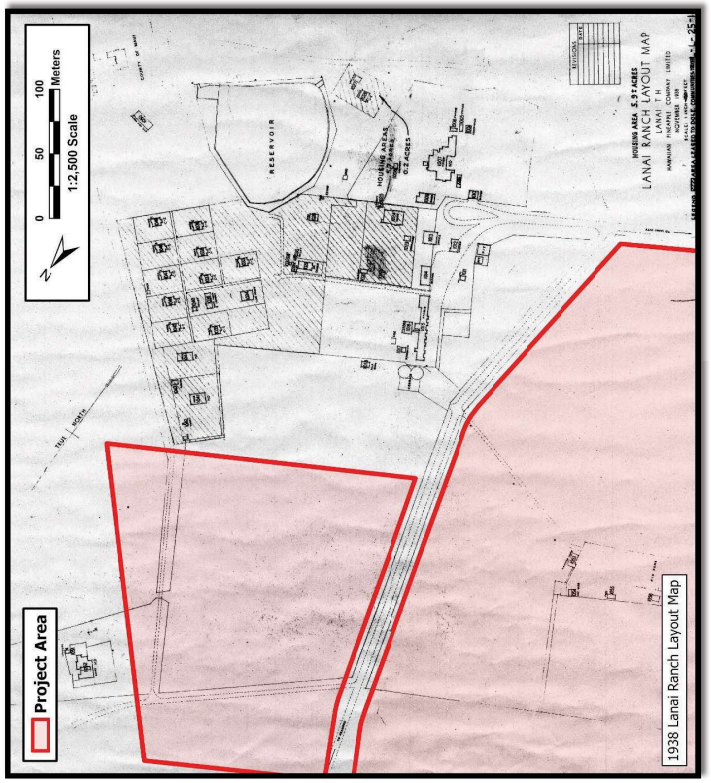
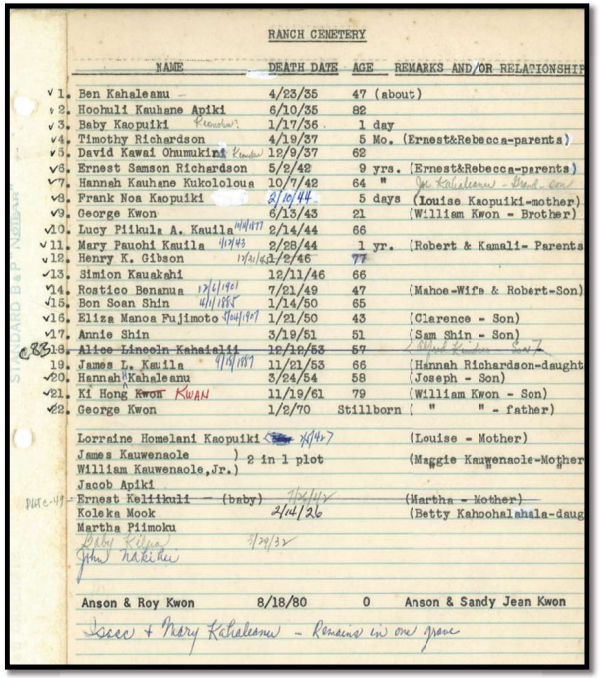


Figure 9. A 1938 Hawaiian Pineapple Company Limited map of the Layout of Lanai Ranch with Parcels 1 and 2 highlighted in red (Lāna‘i Culture & Heritage Center Collection 1938)



RANCH CEMETERY

NAME	DEATH DATE	AGE	REMARKS AND/OR RELATIONSHIP
1. Ben Kahaleanu	4/23/35	47 (about)	
2. Hoohuli Kauhane Apiki	6/10/35	82	
3. Baby Kaopuiki	1/17/36	1 day	
4. Timothy Richardson	4/19/37	5 Mo.	(Ernest&Rebecca-parents)
5. David Kawai Ohumukini	12/9/37	62	
6. Ernest Samson Richardson	5/2/42	9 yrs.	(Ernest&Rebecca-parents)
7. Hannah Kauhane Kukololoua	10/7/42	64 "	
8. Frank Noa Kaopuiki	2/10/44	5 days	(Louise Kaopuiki-mother)
9. George Kwon	6/13/43	21	(William Kwon - Brother)
10. Lucy Pilkula A. Kauila	2/14/44	66	
11. Mary Pauohi Kauila	2/28/44	1 yr.	(Robert & Kamali- Parents
12. Henry K. Gibson	12/2/46	77	
13. Simion Kauakahi	12/11/46	66	
14. Rostico Benanua	7/21/49	47	(Mahoe-Wife & Robert-Son)
15. Bon Soan Shin	1/14/50	65	
16. Eliza Manoa Fujimoto	1/21/50	43	(Clarence - Son)
17. Annie Shin	3/19/51	51	(Sam Shin - Son)
~~18. Alice Lincoln Kahaialii~~	~~12/10/53~~	~~57~~	
19. James L. Kauila	11/21/53	66	(Hannah Richardson-daught
20. Hannah Kahaleanu	3/24/54	58	(Joseph - Son)
21. Ki Hong ~~Kwon~~ KWAN	11/19/61	79	(William Kwon - Son)
22. George Kwon	1/2/70	Stillborn	(" " - father)
Lorraine Homelani Kaopuiki			(Louise - Mother)
James Kauwenaole) 2 in 1 plot			(Maggie Kauwenaole-Mother
William Kauwenaole,Jr.)			
Jacob Apiki			
~~Ernest Kelikuli - (baby)~~			~~(Martha - Mother)~~
Koleka Mook	2/24/26		(Betty Kahoohalahala-daug
Martha Piimoku			
Anson & Roy Kwon	8/18/80	0	Anson & Sandy Jean Kwon

Figure 10. Kō‘ele Ranch Cemetery Index (Courtesy Lāna‘i Culture and Heritage Center)

2.6 Lāna‘i: From Ranch to Pineapple Plantation

By the time of the Māhele ‘Āina in the late 1840s, it was recognized that goats and sheep were impacting the lands and practices of native tenants, and that there was some money to be made from the animals. Several native tenants of Lāna‘i cited goats in the kuleana claims. In the 1850s, Mormon elders who settled in Pālāwai Basin began importing additional livestock, and informal, free-range ranching was underway. In the early 1870s King Kamehameha IV and Walter Murray Gibson formalized the ranching venture focusing on sheep and goats,[45] with smaller herds of cattle, horses, pigs, and fowl. The king’s operation focused on sheep, and Awalua landing on the coast of Paoma‘i served as the port for imports and exports.

By 1875, Gibson’s ranching operation centered around Kō‘ele, with the “home pastures taking in upper Kamoku and Paoma‘i.” Gibson’s heirs continued the ranching operation, and also

[45] Hawai‘i State Archives, M-88, Records of Lot Kamehameha.

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ventured into several other fields of agriculture, including the raising of vegetables in the Kōʻele uplands for Honolulu markets, and development of a sugar plantation in the Maunalei-Kahalapalaoa region of windward Lānaʻi.

The following item from a newspaper indicates that the ranching business was bustling.

> Business on Lanai. By arrival from the wool-growing island of our friend W. M. Gibson, we learn that one day during last week, three vessels were lying at anchor in the harbor of Awalua, busily engaged, the Kamaile in loading wool, the Warrick in discharging freight for the ranch, and the Kapiolani in loading sheep.[46]

In 1902, Charles Gay secured his first interest in the Lānaʻi land assets. He also began to develop more cattle on the ranch lands. Subsequent to Gay's tenure, ranching operations steadily moved away from sheep to cattle. This was particularly important following an outbreak in 1913 of cerebrospinal meningitis among the sheep herds. The ranch improved the cattle herd, and operations focused on cattle and pigs. When the ranch was finally closed by Hawaiian Pineapple Company, Limited in 1951, grazing had been restricted to the slopes beyond the ca. 20,000 acres dedicated to pineapple cultivation in a series of paddocks that encircled the island. Figure 11 is a portion of the 1947 Lanai Ranch Paddock Map, depicting Ranch Paddock 26 covering the current project area.

The ranch operated on some 55,000 acres of land which extended from the shore to around the 1,000 foot elevation along the leeward side, with Kōʻele serving as the ranch hub.

> Mr. Gay continued with the sheep ranch started by Gibson and Hayselden, probably carrying as high as 50,000 at times, but when the Lanai Company, Ltd., was started in 1910 they changed to cattle and put in extensive provisions for water and fences, and a count in April 1911, gave 20,588 sheep and 799 head of cattle. At the end of 1920 there were only 860 sheep and early in 1923 a count showed that the number of cattle had increased to 5,536 and besides 4,462 had been sold during the previous five years. Reduction of the herd to make room for pineapples was started on a large scale in 1924, and from the end of 1922 to October 1928, 6,764 head of cattle were sold (Henke 1929:52).

Charles Gay picked up the ranching program on Lānaʻi from the heirs of Walter Murray Gibson. Between 1903 and 1907, Gay secured fee-simple title to 99% of the land on Lānaʻi, but his ranch was in debt beyond its ability to generate income. Verging on bankruptcy, Gay conveyed all of his Lānaʻi assets to his creditor W. G. Irwin and Company on September 7, 1909.[47] Gay remained on Lānaʻi with residences at Kōʻele and Keōmoku, while Irwin explored opportunities for new business ventures on the island.

[46] "Notes of the Week," *Pacific Commercial Advertiser*, May 15, 1875, p. 3.

[47] Bureau of Conveyances, Liber 316, p. 474–479.

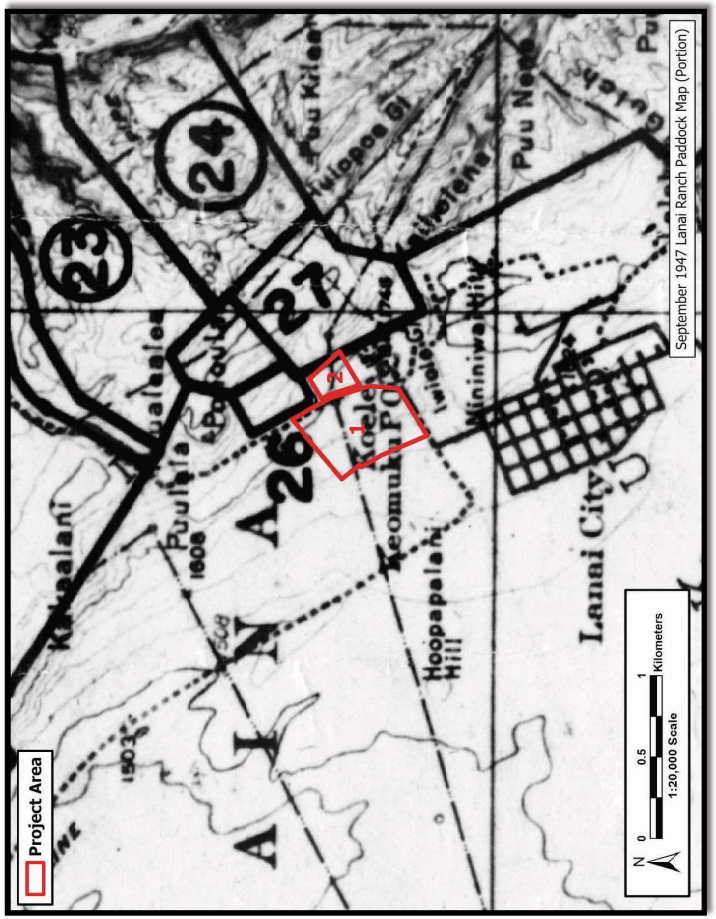

Figure 11. Portion of the Lanai Ranch Paddock Map, September 24, 1947; Detail of Paddock No. 26, Parcels 1 and 2 are outlined in red (Lānaʻi Culture & Heritage Center Collection 1947a)

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On April 28, 1910, Cecil Brown and Robert Shingle, partners with J. T. McCrosson, purchased Irwin's Lānaʻi interests, and formed the Lanai Company, Limited and Lanai Ranch.[48] Through this transaction, all of Lānaʻi, except for small native holdings, were conveyed to the new partnership.

In 1910, Ralph Hosmer, Superintendent of Forestry in the Territory of Hawaiʻi, conducted an investigation of Lānaʻi, and provided the following assessment.

> The following report is drawn up by the Division of Forestry of the Territorial Board of Agriculture and Forestry at the request of the Lanai Company, under the offer of assistance to tree planters contained in Circular No. 1 of the Division of Forestry. Its purpose is to outline a comprehensive program of forest protection and forest planting for the Island of Lanai. From its nature such work must be done gradually. It is not the expectation that all the recommendations in this report will be carried out at once; rather that the several parts of the plan can be put into effect as the property is developed and as opportunity offers…
>
> **The West End of the Island**
>
> As the result of continued overstocking in former years, a large section at the western end of Lanai has now reached a condition that makes it not only of little value in itself but a menace as well to the better land in that vicinity. The problem is how best to check the present waste and restore this section to a permanently productive condition. It is a situation that demands the most energetic measures, but from work that has already been done there is every reason to believe that the reclamation of this section can be successfully accomplished.
>
> From the head of the Maunalei gulch there extends toward the west end of the island a flat topped ridge having an average elevation of about 2000 feet. On the windward side the slope is fairly regular down to the north shore of the island. On the south there is a sharp descent into the extension of the Great Basin that lies to the west of Koele. The area in question is a belt of varying width, principally from the west branch of the Maunalei Gulch to a point somewhat to the north of the hill on the land of Kaa known as Kanepuu. Blowing down the channel between West Maui and Molokai, the full force of the trade wind is concentrated on this portion of Lanai. The soil cover once broken, erosion by wind and rain goes on a pace. The upper layers of soil being lost the surface is worn down to hardpan or to the only slightly less compact subsoil. In places where the soil is somewhat more sandy, dunes are forming the unless speedily checked will spread and render valueless still further areas. With the example of Kahoolawe as a warning the Lanai Company cannot afford not to undertake prompt and strenuous measures of reclamation. The extent and character of the damage over the exposed areas is by no means uniform. The area may in fact be divided into four main sections; (1) The land between the main road and a line roughly parallel thereto, from the crest of the ridge down across the basin in the Paomae [Paomai] Gulch, where it is proposed to construct the dam and storm water reservoir; (2) the section of "bad lands", including the dunes, immediately to the west of this line; (3) the slope on the southern side of the crest of the ridge, above the Basin; and (4) the section along the crest and extending

[48] Bureau of Conveyances, Liber 333, p. 153–164; and Liber 338, p. 2–6.

> toward Kanepuu, already reclaimed through the planting of Manienie grass. On the windward slope of the ridge are several groves of native trees, the remnants of the old time forest. These groves consist mostly of the Wild Olive Ulupua [Olopua] ([*Osmanthus*] *sandwicensis*). Other trees are Lama ([*Diospyros*] *Maba sandwicensis*) and in scattering groups, Halapepe (*Dracaena* [*Pleomele* spp.]).
>
> The object in the reclamation of this area should be to restore it to a condition of permanent productiveness. It is primarily a questions of finding suitable grasses and other soil binding plants that can in time be themselves used for grazing, or that when they have checked erosion can be made to give place to other plants of greater forage value. Comparatively little of this area is suitable for any agricultural crop. Part of it should be kept permanently in forest, both because trees are the most valuable crop that such land can produce and also because groves in the more exposed parts would afford protection to the better land. It goes without saying the that the groves now on the land form a starting point.
>
> The solution of this problem rests in the establishment of certain grasses and other soil binding plants, rather than in tree planting pure and simple. That much work is feasible and will yield results is amply proved by the Manienie grass planting done by Mr. Morehead.[49]

As early as 1910, the Lanai Company was also exploring the possibility of pineapple cultivation on the island, as reported in the *Hawaiian Gazette*:

> Several thousand pineapple tops have been sent to Lanai by the Lanai Company to develop its pineapple enterprise. The pineapple experiment on Lanai has been successful. The first ones raised weighed about eight and a half pounds each, but later ones were not so heavy, on account of the rows being too close. The industry will be developed on the island and made one of the principal by crops.[50]

By November 28, 1910, it was reported that nearly 7,000 pineapple plants had been planted on Lānaʻi.[51]

In 1911, George C. Munro was hired as the new ranch manager, and operations quickly shifted to cattle operations and work in stabilizing the landscape through planting of *eucalyptus*, black wattle, *ironwood*, and various grasses; his work also extended up the mountain lands, and led to the planting of thousands of Cook Island Pine seedlings as a means of drawing moisture out of the clouds and recharging the diminishing aquifer.

The efforts at developing diversified agriculture on Lānaʻi in this period failed, and in 1917 Lānaʻi was once again on the market. In January 1917 it was reported that both the Hawaiian Pineapple Company and Libby, McNeill & Libby were exploring the possibility of purchasing Lānaʻi for pineapple cultivation. The sale did not progress, and on March 3, 1917, Frank and Henry

[49] Ralph S. Hosmer, Superintendent of Forestry, "A Report on Possibilities of Forest Work on the Island of Lanai, Territory of Hawaii," Board of Agriculture and Forestry, Division of Forestry, September, 1910. Drawn up by request for The Lanai Company.

[50] *Hawaiian Gazette*, November 22, 1910, p. 8.

[51] *Evening Bulletin*, November 22, 1910, p. 3.

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Baldwin purchased the entire island, along with all the Lanai Ranch lands, livestock, and personal property for $588,000.[52]

In 1922, Ulupalakua Ranch, which also operated ranching on the island of Kaho‘olawe, came on the market. The Baldwin brothers wanted to add the ranch to their already substantial Maui holding, so they offered the island of Lāna‘i with all the ranching assets for sale. This time James Dole’s Hawaiian Pineapple Company (HAPCo) stepped up and on December 5, 1922, the Hawaiian Pineapple Company, Limited purchased all of the Baldwin holdings on Lāna‘i.[53]

The purchase price of the island was $1.1 million. In 1923, Dole began development of the Lāna‘i plantation, and land in Kamoku was selected for the new city, with the ranch operations continuing to run out of Kō‘ele. Nearly $2 million was spent on improvements to the island, for the development of macadamized roads and the town of Lāna‘i City. In 1926, Dole hosted a tour of the plantation and developing city. The 150-person tour of politicians, businessmen, and friends were impressed with the progress that had been made in the short time on Lāna‘i (Smith and Dougherty 1926).

Lāna‘i had been often overlooked because the appearance of the island from offshore was dry and desolate, but Dole saw that inland are some arable lands. There were 20,000 acres of land suited to pineapple on the island of Lāna‘i--Hawaiian Pineapple Company considered it as the last of the desirable acreage left in Hawai‘i. The soil and conditions were desirable, but many improvements had to be made. Many miles of cactus had to be dragged out and removed from the landscape. The Hawaiian Pineapple Company built a harbor at Kaumalapau with a breakwater made of a solid rock cliff that they had busted and transferred. Roads from the fields to the harbor were paved. One of Hawaiian Pineapple Company’s old photos shows neat rows of pineapple, with Lāna‘i City in the background. Lāna‘i City was developed for the workers that were brought over (Hawaiian Pineapple Company Ltd. 1927:17–23).

In 1927, HAPCo began the process of confirming title to all of its Lāna‘i land holdings and recording them through the Land Court System. The notice reproduced below, dated May 11, 1928, pertains to Land Court Application No. 862 and is entitled “Identifying Ownership of all Lands on Lanai.” It refers to all ahupua‘a, kuleana, and grant parcels on the island. Eventually some 20,000 ac. of the top lands of Lāna‘i came under the plow of the pineapple plantation.

> To all whom it may concern: Hawaiian Pineapple Company, Limited, a Hawaiian corporation, hereby gives notice that on the 11th day of May 1928, it filed an application in the Land Court of the Territory of Hawaii to have its title to certain land, in said application described, registered and confirmed pursuant to Chapter 186 of the Revised Laws of Hawaii 1925.
>
> Said land is the Island of Lanai, Territory of Hawaii, U.S.A., lying between 20º 44’ and 20º 57’ North Latitude and 156º 45’ and 157º 02’ West Longitude (as shown on Government Survey Registered Map No. 1394), containing an area of 88,953 acres, or 139.0 square miles, more particularly described as follows:

[52] Bureau of Conveyances, Liber 468, p. 189–194.

[53] Bureau of Conveyances, Liber 659, p. 412–416.

> The following Ahupuaa’s cover the Island of Lanai, and with the exceptions of Exclusions 1 to 32-B (inclusive) are owned by the Hawaiian Pineapple Company, Limited.[54]
>
> 1. Paomai – Grant 5011 to Walter M. Giffard — Area 9078 Acres
> 2. Mahana – Grant 5011 to Walter M. Giffard — Area 7973 Acres
>
> …
>
> 12. Kamoku – Grant 5011 to Walter M. Giffard — Area 8291 Acres
> 13. Kaa – R.P. 4475, L.C.A. 7713, Ap. 29, to Victoria Kamamalu — Area 19468 Acres

By the mid-twentieth century, the current project area became dominated by commercial pineapple cultivation. Figure 12 is a portion of a 1947 HAPCo field map, with details of the lands in the upper Paoma‘i-Kamoku region and numbered fields. Figure 13 is a 1953 aerial photograph showing the project area almost entirely under commercial pineapple cultivation. At the time the plantation absorbed the ranch lands, turning them into cultivated pineapple fields, surface features were destroyed. Notice Parcel 2 of the current project area is adjacent to the old Koele Ranch Headquarters of the Lanai Company Cattle Ranch, however, no structures are present within the current project area.

[54] Bureau of Conveyances, Liber 939, p. 133–157.

REF-104

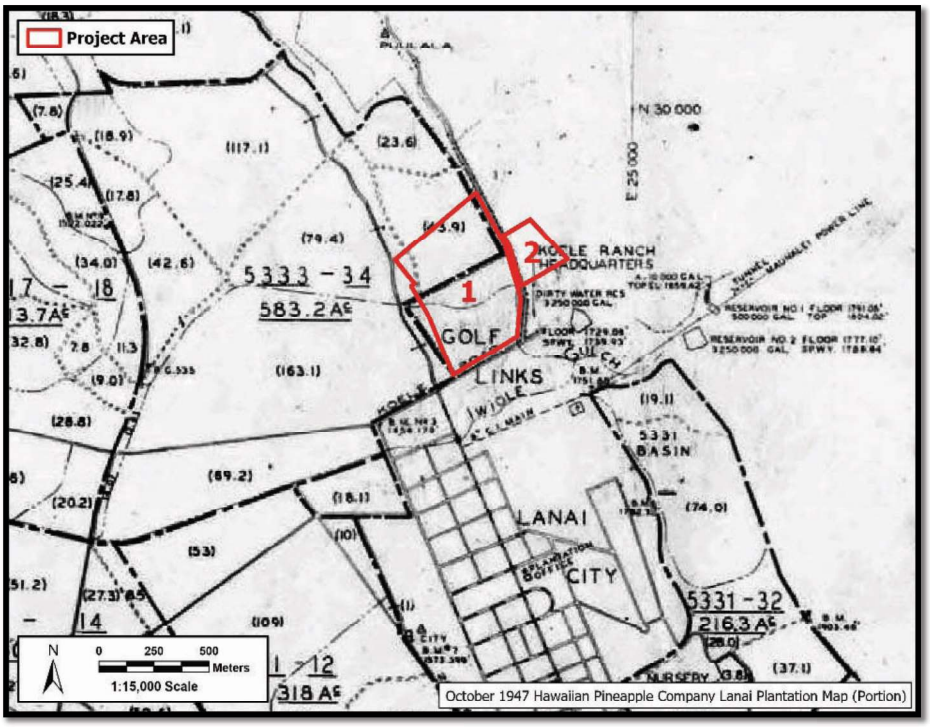

Figure 12. Portion of a HAPCo Lānaʻi Plantation Map, October 1947; note the Pineapple Fields located in the vicinity of Parcels 1 and 2 (courtesy of HAPCo Collection, Lānaʻi Culture & Heritage Center Collection 1947b)

Figure 13. A 1953 Aerial Photograph of the Kōʻele Area showing Parcels 1 and 2 under Commercial Pineapple Cultivation (Photo courtesy of the Lānaʻi Culture and Heritage Center)

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2.7 Land Tenure, Places, and Events in Kamoku Ahupuaʻa

Throughout the large majority of Hawaiian- and English-language accounts, the name Kamoku is given for the ahupuaʻa (Figure 14). In one narrative recorded by Martha Beckwith (1940), Beckwith cites the place name "Kumoku" on Lānaʻi, and associates it with the god Kū's first encounter with Lānaʻi:

> According to Kupihea the great gods came at different times to Hawaii. Ku and Hina, male and female, were the earliest gods of his people. Kane and Kanaloa came to Hawaii about the time of Maui. Lono seems to have come last and his role to have been principally confined to the celebration of games. At one time he was driven out, according to Kupihea, but he returned later. Kane, although still thought of as the great god of the Hawaiian people, is no longer worshiped, but Ku and Hina are still prayed to by fishermen, and perhaps Kanaloa—Kupihea repeating to me softly the prayer with which he himself invoked the god of fishes.
>
> Of the coming of the gods he had explicit evidence to offer: "Ku and Hina were the first gods of our people. They were the gods who ruled the ancient people before Kane. On [the island of] Lanai was the gods' landing, at the place called Ku-moku. That is the tradition of our people. Kane and Kanaloa [arrived there], but not Lono. Some claim that Lono came to Maui. It is said that at the time Kamehameha quartered his men at Kaunakakai on Molokai before the invasion of Oahu, he went to Lanai to celebrate the Makahiki [New Year] festival and on that occasion he said, 'We come to commemorate the spot where our ancestors first set foot on Hawaiian soil.' So it seems as if it must be true that the first gods who ruled our people came to Lanai." (Beckwith 1940:11)

An earlier version of this tradition has not yet been found in the volumes of research in native-language history or earlier foreign accounts for Lānaʻi. In a few of the English-language narratives published by Walter Murray Gibson—an article and land application letters—he writes of "Kumoku." Gibson's account of Puhi o Kaʻala, published in the *Nuhou* April 1, 1873 (page 4), Gibson described the journey of Opunui and Kaʻala, referencing the forest of Kalulu and Kumoku (Kamoku). Opunui and Kaʻala passed "through the groves of Kalulu and Kumoku [Kamoku]," and he then forced her down the trail towards the shore at Kaumālapaʻu. To date, other specific locational reference to the place name "Kumoku" have not been found.

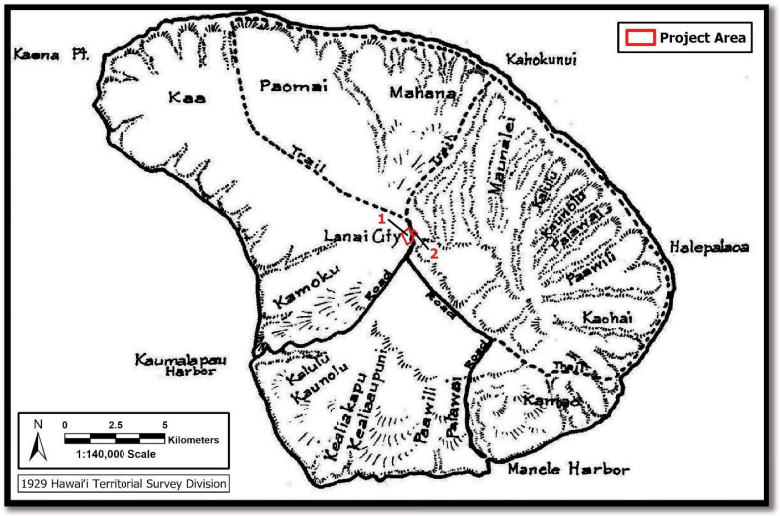

Figure 14. Map of the Island of Lānaʻi Naming 13 Ahupuaʻa which form the Major Lands of the Island, as well as Historic Trails and Roads (Hawaiʻi Territorial Survey Division 1929)

2.7.1 Place Names of Kamoku

In addition to the ahupuaʻa name, several place names survived the passing of time in Kamoku. The site numbers listed are from Emory's 1924 archaeological inventory survey on Lānaʻi (Emory 1969).

Anapuka Arch (Site 175). A rocky point with an arch.

Hōkūao Morning Star (Site 84). A level land below Lānaʻi City.

Hulupuʻuniu Translation uncertain (Site 78). A level land area below Hōkūao.

Iwiʻole No bones, or no boundary wall (Site 87). Named for a native tenant who lived on the land below Kōʻele, in the early to mid-1800s.

Kaiholena The *iholena* banana tree (Site 89). An area above Kōʻele, where bananas were grown formerly. A favored region of Lānaʻi, where enough water could be found to tend cultivated crops.

ʻIli o Lono The land section of Lono, site of an ancient heiau of the agricultural class, near the former house site of Papalua, and boundary point between Kalulu and Kamoku Ahupuaʻa (Boundary Commission records). Point where the mauka–makai trail crosses out of Kalulu into Kamoku (Site 25). Now covered by the airport. Alternate spelling: Ka Ili o Lono, Iliolono.

Kalamaiki The little torch (Site 71).

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Kalamanui The big torch (Site 72).

Kamoku The district or cut off section. One of thirteen ahupuaʻa that make up the island of Lānaʻi (Boundary Commission records).

Kaumālapaʻu Soot placed in the planting field (Site 73). A bay and ancient village site. The present-day harbor was first opened in 1925, and it has served as the working harbor for Lānaʻi since that time.

Keʻaʻakū Interpretive, the brave or upright one. A small valley that joins Kapano Gulch on inland side of Pūlehuloa, Kamoku Ahupuaʻa (Site 81) (Boundary Commission records).

Keahiʻāloa The long burning fire (Site 15 & 75). The place where Kawelo burned the excrement of the Molokaʻi priest, Lani-kāula.

Keone The sand (Site 69).

Kiʻei To peer, peep (Site 70). A small bay.

Kihamāniania To sneeze and shudder (Site 85). Formerly a place associated with priestly lines, reportedly a training area of warriors. A hill with the ruins of a Protestant church and school house (construction started in 1840). Also the site of an old cemetery. Alternative spelling: Kihamānienie.

Kōʻele Black or darkness drawn down (Site 88). Said to be named for the heavy, moisture laden clouds which would come down the mountain gulches. These clouds and fog were so thick that one could not see but a few feet in front of oneself. Site of the former Kōʻele Ranch—headquarters of the Lānaʻi Ranch from 1870 to 1951.

Ku-a-nā-ipu Interpretive, upright gourds, a section of land between Puʻu Nānā i Hawaiʻi ʻIli o Lono, near the Kalulu and Kamoku boundary (Boundary Commission records).

Lālākoa *Koa* (*Acacia koa*) tree branch (Site 83). Formerly a forested area and, in the early 1900s, site of the Charles Gay family home.

Makapāʻia Enclosed point (Site 82). Overlooking Kapano Gulch.

Naupaka The *Scaevola* plant (Site 67). A small perched valley.

Nininiwai Pouring water (Site 86). Formerly one of the important agricultural areas of old Lānaʻi natives. Later, the location where the first pineapple were planted on Lānaʻi.

Paliamano Literally, Cliff of Mano. A gulch that forms a boundary between Kamoku and Kaʻā.

Pueo Owl. An *ʻili* of land in Kamoku Ahupuaʻa, near the boundary with Kalulu.

Pūlehu-loa To broil (cook) for a long time (Site 80). Hill and bank that forms a northern wall of Pālāwai Crater, near the Kalulu-Kamoku boundary. Not far from Keliihananui's house (Boundary Commission records).

Puʻu kauila *Kauila* tree hill (Site 74). A boundary point between Kalulu and Kamoku Ahupuaʻa.

Puʻukoa *Koa* tree hill (Site 76). A low hill on the flat lands below Hulupuʻuniu.

Puʻunānāihawaiʻi Hill from which to look to Hawaiʻi (Site 77), a high prominence in Kamoku Ahupuaʻa close to the boundary with Kalulu (Boundary Commission records).

Puʻunēnē Goose hill.

2.7.2 Aliʻi and Native Tenant Claims from Kamoku Ahupuaʻa

Kamoku means literally "the district or cut-off portion" (Pukui et al. 1976:82). Emory explains that the ahupuaʻa "was once cut off from a number of ahupuaas for the use of the whole district, hence its name" (Emory 1969:31). Kamoku is located on the leeward side of the island and includes 8,291 acres. It is bounded by the ocean on the southwest and the mountains on the northeast. On the north, it is bounded by the ahupuaʻa of Kaʻā, and on the south, by Kalulu Ahupuaʻa. Kamoku was noted for its upland forest and springs, with areas the Hawaiians developed into an extensive forested dryland agricultural system. Temporary and long-term residences, from which the rich fisheries fronting the ahupuaʻa were accessed, were spotted around the sheltered coves along the shore.

Pali was the konohiki of Kamoku under the Kamehamehas, and at the time of the Māhele, Kamehameha III retained the ahupuaʻa as Crown Land. Uhu was the kapu fish, and koko (*Euphorbia* spp.) was the kapu wood. Table 4 lists Land Commission Awards (LCA) of native tenants who between 1847–1855 filed claims for kuleana (fee-simple property rights for commoners) lands in Kamoku. The claims reveal some of the activities that occurred in the lands of Kamoku. Registered Map 2227 (Figure 15) shows the claims in Kamoku. Oleloa, a woman of chiefly lineage, claimed the important spring-watered bay of Kaumālapaʻu, an ʻili of Kamoku, but relinquished it to the government during the Māhele (see Appendix A). The current project area is located within the ʻili of Kaumālapaʻu.

Table 4. Land Commission Awards claimed in Kamoku Ahupuaʻa

LCA Helu	Claimant	Land	Claims
2686	Oleloa	Kaumalapau at Kamoku	—
4145	Kauihou	Pālāwai & Kamoku	1 house lot, cultivated land
6833	Kaaiai	Kalulu & Kamoku	1 house lot
8556	Kaauwaeaina	Pueo at Kamoku	1 pauku (section)
10630	Pali	Kamoku	Several moku mauu (grasses), sweet potato and gourd fields

REF-107

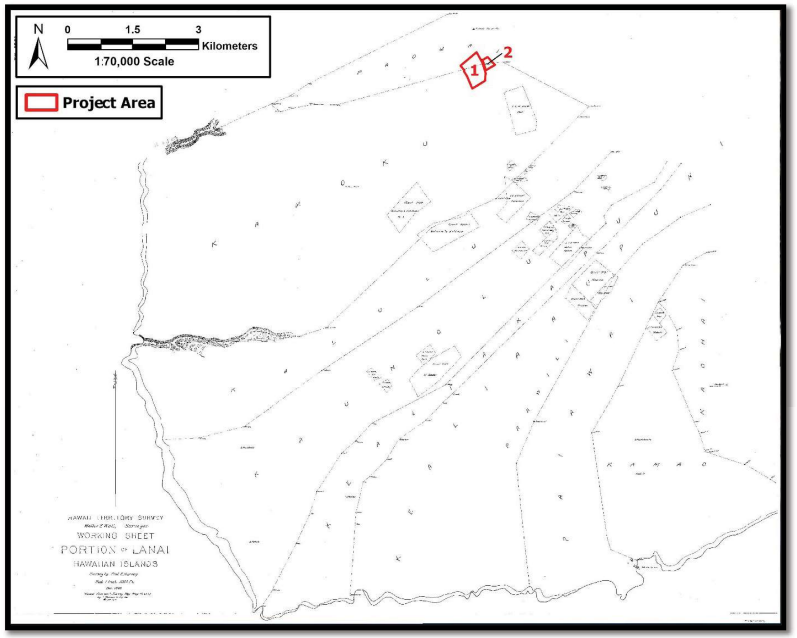

Figure 15. Registered Map 2227. Walter E. Wall, Surveyor, December 1903. Note the Land Commission Awards in Kamoku Ahupuaʻa

At the time that fee-simple property rights were established in the Hawaiian Kingdom, Kamoku Ahupuaʻa was identified as ʻĀina Lei Aliʻi (Crown Lands) having been retained by Kamehameha III in the Māhele ʻĀina of 1848. In 1906, Territorial Governor George R. Carter entered into an exchange agreement which conveyed Kamoku, along with seven other ahupuaʻa on Lānaʻi, to Charles Gay. Thus, with the exception of kuleana ʻāina and Royal Patent Grant lands, all of the ahupuaʻa of Kamoku became private property, eventually transferring to the Hawaiian Pineapple Company, Limited (HAPCo) and subsequently to the present ownership. It is within the uplands of Kamoku Ahupuaʻa, at Kōʻele and Kihamāniania, that the earliest western residences were established, and in 1923, James Dole selected Kamoku as the site for building Lānaʻi City.

There are several resources on the cultural landscape and in the archival records which help us understand some of the history of Kamoku. Among these are place names, the occurrence of the ancient ahupuaʻa trail ala piʻi uka, the traditional boundary alignment markers between Kalulu and Kamoku Ahupuaʻa, and parcels of land which were at one time held by native tenants. Appendix

A provides original source materials and translations done by Kepā Maly of documents associated with Māhele claims in Kamoku Ahupuaʻa.

2.7.3 Kihamāniania and the Kōʻele Vicinity

Situated on the edge of Lānaʻi City, on the side of Iwiʻole and the old Cavendish golf course, are found the ruins of the oldest historic structure in Lānaʻi City. Under the growth of ironwood and Christmas berry trees are the walls, made of stone and coral mortar, of an old church and schoolhouse, on which construction began in 1840. On the makai side of the ruins is an historic cemetery, marked only by some simple stone alignments and depressions in the ground.

While the Kihamāniania vicinity was the main upland settlement on Lānaʻi in the early to mid-nineteenth century, by the late 1860s the population was dispersed. In the 1870s, business interests, in the form of ranching, became established in the Kōʻele vicinity, and the Kihamāniania Church and schoolhouse fell into disuse. Based on the recollections of elder kamaʻāina, we know that the cemetery continued to be used by native families in the area through the early 1900s. To date, only limited documentation pertaining to the construction and uses of this site have been found, however, a research project is being undertaken in association with development of the Lānaʻi Culture & Heritage Center which hopes to uncover more interesting historical facts. Figure 16 shows a photo of the Kihamāniania School ruins.

At present, only a few historical accounts of the Kihamāniania area, dating from 1840 to 1917, and the memory of elder kamaʻāina of Lānaʻi, who learned about the location from their kūpuna, provide information on the site. Provided below are native texts that are translated by Kepā Maly.

Kaliliaumoku, the resident teacher at Kihamāniania in the 1840s, wrote the following article to readers of the Hawaiian newspaper *Ka Nonanona* in which he described the difficulty in getting the stone house for the church and school constructed:

Figure 16. Kihamāniania ruins as they appeared in 2008. Photo courtesy of Kumu Pono Associates

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Auhea oukou e ka poe kukulu luakini o keia pae aina, e nana mai oukou i ka makou hana ana i keia luakini; o ka ha keia o ka makahiki o ka hana ana o keia hale, aole i paa, ua hiolo kekahi aoao, ke hana hou nei nae makou, ke halihali nei makou i ke one; ua moa ka puna; o ka uhau hou koe.

I koʻu nana ana ma keia hana, nui ka hemahema: eia ka loihi o kahi o ka wai i waiho ai, hookahi mile a me ka hapa ka loihi o ka wai.

Eia ka loihi o ka puna a me ke one, eha mile a me ka hapa ka loihi ma ka aoao komohana, pela no hoi ke kii aku i ke one ma ka aoao hikina.

Eia ka loihi o ka pohaku, elua mile ka loihi.

Eia ka pohaku kokoke he kohi ilalo e like me ka ai, pela e loaaʻi ka pohaku, nui ka hemahema o ka makou hana.

Ke ake nei ko makou manao e paa ko makou luakini, kahi e hai ia ai ka olelo a ke Akua. Aole no hoi e pono loa ka hale maoli ma keia wahi, no ka nui o ke anuanu, aole e pono na malihini ke hele mai me kahi kihei wale no: eia ka pono me ke kapa mahuahua ka pono.

Nolaila o keia hale pohaku ka pono loa no keia wahi. Eia no keia hemahema, o ka laau ole, he kakaikahi ka laau loloa loa: aia eha kaloa, a me ka iwilei alaila hiki.

Nui ko makou makemake e paa ko makou luakini i keia makahiki.

Aka, aole i ikea ka manawa. O kekahi poe o makou i hana i keia hale, ua hele aku kekahi poe.

Ua make kekahi mau hoahanau ekolu i ai i ke kino o ka Haku.

O kekahi luakini o makou, aia ma ka aoao hikina o keia aina, aole hemahema loa e like me keia hale; ua kokoke no ka puna a me ke one, a me ka pohaku, a me ka wai, hookahi wale no mea hemahema, o ka wahie, oia wale no ka mea kii aku i kahi loihi.

Hear ye, o people who build churches in these islands, you should look to us and our work at this church. This is the fourth year of work on this house. It is not completed. One side collapsed, and we have built it again. We had to carry the sand, bake the coral, and the building yet remains to be done.

As I look at this work, there are many problems. The place for the water is far away. The water is about one and one half miles distant.

Here is the distance for the coral and the sand. It is four and one half miles distant, on the south side, and also if it is gotten from the east side.

Here is the distance to the stones, two miles away.

Here the stones that are close, are gathered like the taro, that is how the stonesare gathered. Our work is very unskilled.

In our thoughts, we desire to complete our church, a place in which the word of God may be spoken. The native houses are not adequate in this place, for it is very cold, and not good for the visitor come with only a shoulder wrap. Here is what is needed, a strong (thick) clothing.

Therefore there is a great need for the stone house in this place. Here also is this difficulty, there is no timber. The long wood for timber is but scattered about. If it was perhaps four (feet) long, and a yard, then it could be done.

We greatly desire to complete our church this year.

But it shall not be seen at this time. The people who are making this house, some of them have gone away.

Three of the brethren have died, and are in the body of the lord.

One church of ours is there on the eastern side of this island, it is not in difficulty like this house. It is close to the coral, the sand, the stones, and the water. The only difficulty is the fire wood, that is the only thing which is gotten from some distance away.

Eia kahi olelo ninau, ina i manao oukou i kuu hoike ana i ka hemahema o keia hale, he pono paha, he hewa paha keia hoike ana aʻu?

Naʻu na Kaliliaumoku.
Kumu ao Kihamaniania.

So here is a question, if you who think of my testimony about the difficulties of this house, is it right, or is it wrong what I have explained?

Done by me, Kaliliaumoku.
Teacher at Kihamāniania.

"The Difficulties of a Church on Lānaʻi," *Ka Nonanona*, March 23, 1843, p. 106.
Translated by Maly.

Shortly after the stone church and schoolhouses on Lānaʻi were built, Reverends Cochran Forbes and Dwight Baldwin visited Lānaʻi. This being Forbes's first visit, the scenery was new to him, and he took the time to describe the land and people in his journal. The full entry is not cited here, as it places in context and relationship, the settlement of Kihamāniania with other settlements on Lānaʻi.

> Sept. 24. On the 20th left home about sunrise for Ranai [Lānaʻi] in company with Bro. Baldwin. Kaoluloo took us over in his boat. We had a very pleasant sail, until within some 3 miles of the landing when the fresh trades spattered us a little.
>
> We landed safely however, after about 3 hours sail, at Kaunolu [this being the section of Kaunolu on the Keōmoku side of the island], where there is a meeting house. The same evening we met with and preached to a congregation of about 125 persons, and next day held four meetings with them. They appeared very attentive to the truth. Our congregation was about 180 on the Sab.
>
> Monday morning after meeting with them we went by canoe to Maunalei, the place of the teacher Waimalu. There we again met with the people of that neighborhood & prepared to ascend the mountains to visit the people on the south side. The north side is a miserable, arid barren rocky place, except a few rods of low sandy soil, evidently made by the wash of the sea, on which grows a sparse, coarse kind of grass.
>
> When we reached the high land we found the air much more cool & invigorating and after we had crossed the ridge the soil became better and vegetation more lively. There is an extensive piece of tableland there, perhaps 10 miles one way & 3 or 4 the other, on which are very few stones. There we spent the night & met with the people, near 200 in all who had come together to hear & see the strangers. Pali the Lunaauhau [tax collector] for the whole island resides at this place called Kihamaniania. His influence is manifestly good. We found several pious people around him & himself a good man. He told us that his little children only 6 & eight years old had read the Bible through. He also gave us a list of all the men-the women & children on the island, the whole numbering 584 inhabitants. Most of the chiln. are in school and very few of them who are 12 years old that cannot read.
>
> The atmosphere was cool & invigorating at Kihamaniania. We spent the night there and early in the morning held another meeting with them, after which we left amid many greetings for the seaside at Kaohai, Pia's place.
>
> We travelled constantly only stopping once to hold meetings at the place of Kamalulu [presumably in Pālāwai], who teaches a school and is Lunakanawai [Magistrate] for the whole island. He showed us his prison, after meeting. It was a

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large hole in the side of the hill, some 10 feet in diameter and about 20 feet deep. He said he put prisoners in there when they became rebellious and required punishment. Sometimes he had two in at once but rarely more than one.

He had a turkey baked for us and a fowl roasted which he set before us with sweet potatoes sufficient & two watermelons. After dinner we pursued our course over a rolling country of hill & valley and just as the sun reached the top of the hills which then fell behind us we began to descend to the sea, and by dark reached Kaohai, where Pia had the people of all that neighborhood assembled under some kou trees at his door, and though our feet & limbs ached with the journey we must first sit down and hold a meeting with them which we did & I trust good was done altho' we were all so tired that it was with difficulty we got about & got up when we once had sat a few minutes. Pia then had a decent supper set for us on a table with dishes, plates, knives & forks, & some of Sam & Mow's bread. After supper he had water poured into his bathing tub (a half hogshead or butt) from the sea where each of us bathed, which much refreshed us. We then retired for the night and enjoyed a refreshing sleep.

This morning again I talked to the people and after breakfast Pia got his whaleboat rigged and we started for Lāhaina, having a gentle sea breeze. But the surf rolls in so heavily at Kaohai that it was with difficulty we got out. I was expecting two or three times to be swamped, but the boat rode through every surf safely so that by the goodness of God we got safely to sea and reached Lāhaina safely before 12 o'clock, where we found our families all well after an absence of 4 ½ days. (Forbes 1984:168–169)

In a short article submitted to the native newspaper *Ka Hae Hawaii* in 1856, we learn about the lesson work, and the names of the teachers at both Kihamāniania and Maunalei schools. At Kihamāniania, Solomon Kaho'ohalahala, who later became the island magistrate, was the resident teacher. The Kaho'ohalahala family still maintains its generational attachment and residency on Lāna'i.

E ka Hae Hawaii e:

Aloha oe:—I ka Poaha, oia ka la 25 o Dekemaba, he hoike kula ma Lanai nei. I ka hora eiwa o ke kakahiaka, o ke kula o Maunalei ka mua.

O S. Halekai ke kumu, 19 haumana: ma ka A 5; ma ka Heluhelu 14; ma ka Helunaau 14; ma ka Hoikehonua 7; ma ka Huinahelu 7; ma ka Palapalaaina 7.

Hora 10 1/2, hoike ke kula o Kihamaniania, S. Kahoohalahala ke kumu, 34 haumana: ma ka A 22; ma ka Heluhelu 12; ma ka Palapalaaina 12; ma ka Huinahelu 12; ma ka Hoailonahelu 5; ma ka Pa ko li 9.

To the Hae Hawaii:

Aloha to you:—On Thursday, that is the 25th day of December, there was a school exhibition on Lāna'i. It was at nine o'clock in the morning, and Maunalei school was the first.

S. Halekai is the teacher, there are 19 students: 5 in Science; 14 in Reading; 14 in Mental Arithmetic; 7 in Geography; 7 in General Arithmetic; and 7 in Mapping.

At 10:30 o'clock, the School at Kihamāniania did its exhibition. S. Kahoohalahala is the teacher, and there are 34 students: 22 in Science; 12 in Reading; 12 in Mapping; 12 in General Arithmetic; 5 in Written Arithmetic; and 9 in music.

Done by me, R. Koiku.

Nau na, R. Koiku.
Kahalepalaoa. Dek. 31, M.H. 1856.

Kahalepalaoa. Dec. 31, 1856

Ka Hae Hawaii, March 4, 1857.
Translated by Maly.

In the following two short articles, penned by native residents, associates of church in the Lāhaina District, we learn that the Kihamāniania Church and School, as well as that at Maunalei, had fallen into disuse, disrepair, and had become home to goats, sheep, and dogs. The first article is called "Luakini ole ma Lanai" which means "There is no church on Lana'i."

Ma ka mokupuni au o Lanai i loko o na la mua o Sepatemaba ma ka la Sapati ua hele au i ka pule ma Maunalei, aia malaila kahi e hoomoana ai na Ekalesia me kuu manao he Luakini malaila, i ko'u ike ana he lanai wale no a puni, he hakahaka a nahaha ma kau wahi, he opala a he lepo kahi e noho ai, a he nui na ilio i komo pu, a noho pu me na Ekalesia a e nui ana na Kao a me na hipa ke hiki i ka wa ua, a pela no mauka o Kihamaniania, he hale pohaku a paa loa i ka wa e ola ana o Kaliliaumoku, a me Malulu a i keia wa ua lilo i hale holoholona…

S. W. Nailiili
Puehuehu, Lāhaina.

I was on the island of Lāna'i in the first days of September. On the Sabbath day I went to the service at Maunalei, for there is a place established there in the Church, and I thought that there was a Church there. But when I saw it, there was only a shelter, for it is broken apart and scattered about. There is rubbish and dirt where one sits, and there are many dogs which enter as well, and reside in the Church. There are also many goats and sheep that enter in when it rains. It is the same at Kihamāniania, where there is a stone house made in the time when Kaliliaumoku and Malulu were living. But in this time, it has become a house for animals…
S. W. Nailiili
Puehuehu, Lāhaina.

Nupepa Kuokoa, October 20, 1866, p. 4.
Translated by Maly.

The second article is entitled "Ka holo ana e Kaapuni ia Hawaii. . . " which translates as "A Journey around Hawaii…"

Okatopa 21. Ua loaa na waapa e holo ana i Lanai, a poeleele e holo ai o Mrs. Kapuuhonua a me Luku, ua kauoha mai o Lota Kuaihelani ia'u e malama ia laua ma Lanai. Aole no he lalau o laua ma keia hele ana, a aumoe kau ai ma Manele, a malama ia e ke kaikaina o Mr. Pualewa.

Okatopa 23. Ma ke awakea, ua lawe ia mai na lio ekolu no makou, a pii aku makou i uka o Kihamanienie, ua mahalo au ia uka o Lanai, he aina maikai ia he lepo o uka, aole he aa nui, he

October 21. A boat was gotten to travel to Lāna'i. It was dark when Mrs. Kapuuhonua, Luku (and I), sailed. Lot Kuaihelani instructed me to care for them on Lāna'i. That they should not wander about. Around midnight we landed at Mānele, and were cared for by the younger brother of Mr. Pualewa

October 23. At noon, we took three horses for ourselves, and we ascended to Kihamānienie. I admire the uplands of Lāna'i, it is a good land. There is dirt in the uplands, not

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maikai wale no. O Lanai ka oi o na mokupuni uuku o ka maikai loa.

Okatopa 24. Ua hele nui mai na kanaka e lohe i na mea hou, a pau ka'u hai ana, ua haawi mai lakou i na dala $4.00. Eia ko'u kahaha. Aole he halepule maemae ma Lanai, ua nahaha o Kihamanienie, he moe ia e na kao i ka wa ua. Aloha nui me Rev. N. Pali a me S. Kahoohalahala…
(na Rev. Kaukau)

lots of stones, it is very good. Lāna'i is foremost of the good, small islands.

October 24. Many people came together to hear the news, and my speaking was completed, they gave $4.00. Here is what astonished me. There is not a clean church on Lāna'i. Kihamānienie is broken apart, and the goats sleep in it when it rains. Aloha nui to Rev. N. Pali and S. Kaho'ohalahala.
(By Rev. Kaukau)

Nupepa Kuokoa, November, 16 1867, p. 4.
Translated by Maly.

In 1917, members of the Congregational Churches visited Lāna'i. One of the visitors was the part-Hawaiian Reverend Steven Desha, who had also visited Lāna'i in his youth. In an article published in the Hawaiian-language newspaper *Ka Hoku o Hawaii*, Desha described the Kihamāniania-Kō'ele vicinity, and the relationship of the Kihamāniania facility to others on the island of Lāna'i. An excerpt from Desha's Hawaiian texts and the translation follow below. The article is entitled "Ka Huakai i na Hono a Piilani."

He mau makahiki i ke ola ana o ka mea e kakau nei keia huakai i hoohala ai ma keia Mokupuni o Kaululaau i na la opio, a ia manawa he aneane eono hale kula o keia mokupuni, oia hoi he hookahi hale kula ma Awalua, he hookahi ma Paomai, ka Home o ko'u Ohana i noho ai, a he hookahi no hoi i Maunalei, he hookahi no hoi i kahi kokoke i Kahalepalaoa, a he hookahi i uka o Kihamaninia, a he hookahi no hoi i Palawai. A ina la hoike nui o ka makahiki, e hui ana kela mau kula ma Kahalepalaoa Luakini, a malaila e hoike ia ai na kula like ole, a i kekahi makahiki hoi ma ka Luakini iuka o Kihamaninia e hoike ai, a i maluna o ka 250 mau haumana o keia mau kula e hoike ia ai, a he la laukanaka maoli no ia o ua Mokupuni nei o Kaululaau. I keia ike hou ana aku nei hou ua nele na wahi i noho ia e na kanaka i ke kanaka ole, a he mehameha wale ka aina ma na wahi lehulehu…

There were some years past in the young life of the writer of this journey to the Island of Kaululā'au, a time when there were six school houses on this island. There was one at Awalua; one at Paoma'i, the place where my family resided; one at Maunalei; one close to Kahalepalaoa; one in the uplands at Kihamāniania; and one at Pālāwai. And on the days of the annual exhibition (of skills), the schools would all gather together at the Church of Kahalepalaoa, where the schools would exhibit their knowledge. Then the next year, they would gather at the Church in the uplands at Kihamāniania to exhibit their knowledge. There were more than 250 students in these schools who participated in the exhibitions. Indeed, those were days when there were many people living on the Island of Kaululā'au. Now, upon seeing it once again, those places have no people, it is without people. All about, the land is silent…

Ka Hoku o Hawaii, October 11, 1917, p. 3
Translated by Maly.

In 1921, Kenneth Emory conducted his survey of cultural resources on Lāna'i. During the course of his fieldwork, he visited Kihamāniania and took a photograph of the site (Figure 17). His photograph shows us a very different setting than the one we see today. More of the walls were standing, and the ground about the area was completely open, clear of trees, with only low grass surrounding the region. This was a result of years of sheep and cattle grazing, for these lands made up some of the important pasturage of the Lanai Ranch. Of the Kihamāniania ruins, Emory reported:

> Two Protestant stone meeting houses were begun on Lanai in 1842. One of them was finished in 1851 and represents the ruins at Kihamaniania, near Koele. The other church, at Maunalei, seems not to have been finished in 1858. (Emory 1969:9)

Figure 17. Kihamāniania Church and School ruins in 1921. Source: Kenneth Emory Collection. Copy work courtesy of Robin Kaye, 1975

Kama'āina Knowledge

Over the years, members of elder Hawaiian families of Lāna'i have passed down their recollections that, at one time, the lands around Kihamāniania (the Kō'ele vicinity) were an important area of residence for the people of Lāna'i. In traditional times, the lands in the Kihamāniania, Kō'ele, Kaiholena, and Nininiwai area were noted for their agricultural resources which supported the life of the people. This was in part a result of the environmental conditions of the region, and the traditional place names, themselves, tell us something about the environment.

Kō-'ele Pronounced with a long ō, and a break between the ō and e. Elder kama'āina of Lāna'i say that Kō'ele was named because of the cool, moisture-laden breeze and clouds which blow off of Lāna'i Hale, darkening the land. In this case, kō means windborne, the 'ele means darkness

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(Kō‘ele — Darkness-borne upon the wind). These dark mists carried with them. The life-giving waters which settled upon the land, and made it an area capable of sustaining the people of the land.

Kiha-māniania Also written Kiha-mānienie, is said to describe someone sneezing in fits. The name was perhaps given as a result of the cold, moist nights of the area.

Ka‘iholena Named for a native type of banana (The-iholena), which was a choice crop of the area.

Ninini-wai Describes the dripping (pouring) water, resulting from the moist clouds and mist which came down the mountain slopes, and enabled the cultivation of crops.[55]

In the early 1970s, Abraham Pi‘ianāi‘a—an elder Hawaiian descendant of the chief Pi‘ianāi‘a that resided on Lāna‘i during the occupation by Kamehameha I—said that in his ‘ohana, there was a tradition about Kihamāniania in times before the making of the church and school. Abraham’s father and sister were both born on Lāna‘i in the late nineteenth century, and are descended from the Chinese resident who at one time held the government lease on Kamoku Ahupua‘a.

2.7.4 Lāna‘i City

The story of Lāna‘i City begins when James Dole purchased nearly the entire island of Lāna‘i in November 1922, as a part of the holdings of the Hawaiian Pineapple Company, Ltd. Prior to 1922, the lands on which the city would be built had been grazed as part of the old Lāna‘i Ranch operations, and a large horse paddock at Kaumaikahōkū dominated the pre-city landscape. Plans for building Lāna‘i City were drawn up in early 1923, as Dole and his partners set out to make Lāna‘i the world’s largest pineapple plantation. Coming from Connecticut, Dole was familiar with the design of the “town square” and grid system of laying out streets in such a way that everything was connected to the “green” or park in the middle of town. Under Dole’s tenure, the Lāna‘i plantation and city grew, and at one time the island supported nearly 20,000 acres of cultivated pineapple, making it the world’s largest plantation. For seventy years, from 1922 to 1992 when the last harvest took place, the name “Lāna‘i” was synonymous with pineapple.

Between 1924 and 1929, Lāna‘i City blossomed upon the landscape; most of the buildings and streets which we still see today were constructed during this short period (Figure 18). By March 1924, the general layout of Lāna‘i City was established and some 40 buildings-many of which remain in the present-day Lāna‘i City-were built or were under construction.

[55] From Kepā Maly’s notes and personal communications with elder members of the Cockett, Ka‘ōpūiki, Kauila, Kauwēna‘ole, and Richardson families in the 1970s and 2006.

Figure 18. Lāna‘i City surrounded by newly planted pineapple fields and dotted by recently planted Cook Island Pines. (Army Air National Guard Photo, October 23, 1929, in the collection of the Lāna‘i Culture & Heritage Center)

In the early years of the plantation, the largest group of immigrant laborers was made up of skilled Japanese carpenters and stone masons. Their initial work was undertaken on an almost barren landscape, overgrazed by years of sheep, goat, and cattle pasturing.

Following a brief and successful experiment in planting pineapple on Lāna‘i by Charles Gay, James Dole, president of the Hawaiian Pineapple Company, purchased the island of Lāna‘i for $1.1 million dollars in 1922. In 1923, he sent engineers to begin the design of Lāna‘i City, the

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Kaumālapaʻu Harbor, fields, and facilities which would support the envisioned pineapple plantation. Between 1923 and 1925, the city was laid out. It included houses for individual families and group homes for single men; a hospital dispensary; a theater; stores; churches; a hotel; offices; and labor yards. Outlying plantation camps, overlooking Pālāwai, at Miki, Quarry Camp and Kaumālapaʻu, were also built. The Kaumālapaʻu Harbor was also built during this time. As this work was going on, and housing became available, tracts of land in Pālāwai were being cleared of stones and boulders both by hand and with livestock, and then planted in pineapple.

In 1926, James Dole and a large group of island politicians and business backers visited Lānaʻi. They were greeted by the new residents of the island, who were mostly of Japanese origin. By 1930, the population of plantation employees and their families included 965 Japanese, 867 Filipinos, 102 Koreans, 82 Puerto Ricans, 78 Chinese, 46 Caucasians, and 43 Portuguese. There was also a population of 173 Hawaiians, mostly representative of the old native families, but few were working directly for the plantation (Figure 19).

Figure 19. Early families of Lānaʻi City on Lānaʻi Avenue, fronting Dole Park. Courtesy of Castle & Cooke, Inc.

A series of articles published in the *Maui News* between 1926 and 1939 provide us with eyewitness accounts of the growth and development of the Lānaʻi pineapple plantation operations and city. Several of these articles are cited below. The first, published in the *Maui News* on February 3, 1926, told readers of the visit by James Dole and his associates, as he unveiled the plantation and city to all Hawaiʻi. The account, describing development which had occurred on Lānaʻi between 1923 and January 1926, reads:

> Sunday was show day at Lanai, the Hawaiian Pineapple Company having chartered the Inter-Island steamer Kilauea to take almost 150 prominent Honoluluans to see what it has done with the property it purchased from Baldwin interests in the way of pineapple developments. The Governor and other territorial officials as well as some of the city and county officials were in the party. The Kilauea sailed from Honolulu at 10 o'clock Saturday night and discharged her passengers at Kaumalapau at 6 Sunday morning. Awaiting them were some 40 automobiles and they were taken about in cars for their sightseeing trip, most of which were brought with them from Honolulu. James D. Dole, president of the company personally conducted the party. The motorcade started at 7:50 headed by H. Bloomfield Brown in charge of affairs for the company on the island.
>
> Dinner was served at noon and there was speech making, among the speakers being the Governor. A heavy rainfall cut short the sightseeing trip and the Kilauea sailed on her return trip at 3:30. The Hawaiian Pineapple Company has spent for purchase of the property and its development more than $3,000,000 and the visitors were much impressed with what has been done on the property.
>
> **Statistics Furnished**
>
> The following facts and figures as to Lanai are taken from a folder which was prepared for the excursionists:
>
> Island of Lanai, 140 square miles, 90,000 acres; located 65 miles southeast of Honolulu; estimated pineapple land, 15,000 to 20,000 acres; option on Lanai taken September 5, 1922; option exercised December 5, 1922; population at that time about 150; present population, 1000; elevation of Lanai City, 1650 feet; building of Lanai City commenced August 1923; number of schools, two; attendance, 150; seven miles of asphalt macadam road to Lanai City, eight to 12 inches thick, and 200 feet wide, widened at turns; maximum grade of road to Lanai City, about 6per cent; water supply lifted 750 feet by electric pump from tunnels in bottom of Maunalei gulch; water brought in six inch redwood pipe through three riders by three tunnels, aggregating 5300 feet in length; capacity of old Kaiholena reservoir, 500,000 gallons; capacity new Kaiholena reservoir, 3,900,000 gallons; electric power generated by 100 KW oil engine generator set, generated at 440 volts, transmitted at 2300 volts; capacity moving picture theater, 450; Kaumalapau harbor development work commenced September 1923; length of break water 300 feet; tonnage of rock in breakwater, 116,000; minimum depth of Kaumalapau harbor, 27

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feet; depth of Kaumalapau harbor entrance, 65 feet; length of wharf, 400 feet; number of cattle on ranch at present time, 4000.[56]

By 1930, the population on Lānaʻi totaled 2,356 residents. In the mid-1930s, efforts in expanding the amount of acreage were made, and new laborers, primarily of Filipino and Japanese background, settled on Lānaʻi. All planting, picking, weeding, and most field clearing was done by hand. There were no pineapple picking machines. The pickers picked by hand, loaded bags, walked to the end of the rows and then loaded the pineapples in boxes. The boxes were then hand loaded onto trucks and driven down to Kaumālapaʻu, where cranes would load the truck bins onto the barges for shipping to the cannery at Iwilei in Honolulu.

Later, *Maui News* articles document the following descriptions of Lānaʻi City, the island community, and plantation operations, noting that 16 years after Dole's acquisition of Lānaʻi, the island had become the world's largest pineapple plantation. The following reports on the success of the Lānaʻi venture were published in 1938 and 1939:

> Ten years ago, Lanai was just another unimportant island on the map of the Hawaiian group; today the Hawaiian Pineapple Co. operates on it the largest pineapple plantation in the world, to supply fruit for its cannery in Honolulu, also the largest in the world.
>
> Ten years ago, Lanai's population was approximately 600, and about 4,000 acres were under cultivation. Today the land under cultivation, has increased five-fold to 20,000 acres, and the island's population has grown to an estimated 3,500.
>
> The five year period from 1925 to 1930 was one of great building activity on Lanai as the pineapple company conducted an extensive building program to provide housing for the hundreds of workers who were arriving almost on every boat to make their homes on the island.
>
> Homes for married couples were erected by blocks, in numerical order. There were model two bedroom homes, with large airy living rooms and spotless kitchens, running water, electricity and spacious grassed yards.
>
> Single men's houses were divided in two by a partition with three furnished rooms in each section. All these houses were supplied with running water and electricity. They were laid out to provide ample space around each house.
>
> Attractive as these homes were eight years ago, they are now being remodeled and made better, finer homes. More spacious rooms are being added and sanitary toilets and baths installed.
>
> These new homes are painted cream white inside and out, with doors stained walnut. Each contains six rooms, four of which are 10 by 12 foot bedrooms with built in drawers and closets. The living room has a floor space of 12 by 16 feet, and the kitchen is 14 by 16 feet. All have built in cabinet cases and pantries. All are supplied with running water.

[56] January 31, 1926: Developments on Lānaʻi Visited by Businessmen and Government Officials, "Hawaiian Pineapple Company Runs Excursion to its property and Entertains Visitors," *Maui News* Editorial, February 3, 1926, p. 1, c. 2.

> Sanitary toilets, baths and wash basins are installed in all of the homes.[57]

A story elsewhere in this issue of the *Maui News* describes some of the progress which is being made on all sides on Lānaʻi Isle. It is a story of the building of a happy community and reflects credit on all who are having a hand in the Pineapple Isle's development.

> The cooperation which has been forthcoming from everyone is a splendid example of the Lanai spirit and in the years to come, this little Island will be as famous for its spirit as any other place in the Territory.
>
> More power to Dexter Fraser and the hundreds of Lanai residents who are supporting him in his efforts to make Lanai City the finest in all the land.[58]

The following *Maui News* article is from August of 1938. In the article, many of the developments occurring on Lānaʻi are described. The article is entitled "Lanai Sees Big Things Ahead Under Leadership of Dexter 'Blue' Fraser."

> County recognition of Lanai, signalized by last weekend's visit of the board of supervisors to look over the site for a $30,000 road to Keomuku is only an incident in the development of a community that has made rapid strides during the past few years under the leadership of Dexter "Blue" Fraser, Hawaiian Pineapple Co. superintendent on the Pine Island.
>
> The Lanai of today is a community of happy people, working in harmony for the better island. Moral of Hawaiian Pineapple Co. employees is high. Everyone is pulling together, and this unanimity of purpose has resulted in a way of life for the people of the island that stands as a model for other communities in the Territory.
>
> **Painting the City.**
>
> The physical aspect of Lanai City has been improved recently by a program of renovation and modernization. When the board of supervisors arrived on Lanai last Saturday for an inspection trip, members of the party saw a neat city, freshly painted in green and white, shaded by cool evergreens.
>
> The painting program is not quite complete, but even now there is an appearance for fresh cleanliness. The city is, as it always has been, spotless. Crews of men are assigned to keep the community clean from fallen leaves, weeds, and refuse and to trim the lawns which surround each of the comfortable homes in which the pineapple workers live.
>
> Aside from the County's projected road to Keomuku, the plantation is doing a bit of road work itself. About a month ago, work was started on a project to eliminate some of the dangerous hair pin curves on the Lanai City-Kaumalapau road and widen it to provide ample room for the large pineapple trucks which haul fruit to the port for shipment to the cannery in Honolulu.

[57] 1938: "Hawaiian Pine Improves Conditions on Lanai Isle. The past ten years have brought phenomenal development to the island of Lanai under the guidance of the Hawaiian Pineapple Co., which is creating ideal working conditions for its employees." *Maui News* Editorial, January 22, 1938, p. 1, c. 2.

[58] *Maui News* Editorial, January 22, 1938, p. 8, c. 2.

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Have Safety Program.

Safety has become almost a fetish on Lanai. There is a safety committee composed of community leaders. Workers are invited to submit suggestions and as result of the committee's activities, guards have been placed on machinery, instruction has been given in first aid, and safety first signs have been conspicuously posted.

In the fields mechanical loading machines have relieved some of the back breaking toil which heretofore has been the bane of the field worker. These machines are by no means perfected as Hawaiian Pine freely admits, but progress is being made and experiment is constantly in progress.

In order to correct one deficiency discovered in the fields, the company is now spending about $500 on each loading machine, an outlay of $10,000 for the twenty loaders now in operation. With the pineapple marked as uncertain as it is, Hawaiian Pine is proceeding carefully. There is a definite trend toward improvement in quality. Marginal fields have been abandoned for the time being. Small pineapples, lacking in quality, are left in the fields.

Carrying out the quality idea, Hawaiian Pineapple Co. is now replanting after the first crop rather than after the third as has been the practice in the past.

Athletic Program.

Community life is becoming more pleasant as the years go by. An extensive program of athletics has been developed. This reached its peak during the summer picking months when Maui and Hawaii send young men to Lanai to work in the fields. Most of these are high school students, and many of them are athletes who have found that work in the fields is an ideal conditioner for football and other strenuous sports.

At present, two Maui high school football teams are on Lanai preparing for the forthcoming season under the direction of their coaches…

The Lanai City golf course has recently been remodeled and is becoming increasingly popular. The course is laid out on the slope above the city, which offers a number of good natural hazards, not the least of which is the road to Koele, which cuts through the course. This is no course for the exclusive use of the "big shots." Anyone on the island may use it if he chooses, and the result has been a growing interest in golf…

Lions Active.

Lanai also is finding that the Lions club is filling a definite community need. This organization has been particularly active and only recently sponsored an eye clinic in which more than 100 individuals had their eyes examined…

The fine spirit that has developed on Lanai is due in no small part to the fine leadership of Mr. Fraser. He is universally beloved. He joins enthusiastically in the life of the community. His wise, just dealing with his employees has made him a respected friend of everyone on the island.

The board of supervisors found last weekend how persistent Blue Fraser can be despite his constant joviality and penchant for playing schoolboy pranks. 87 If someone started to a joke about two Scotchmen, Mr. Fraser somehow or other swung the conversation about so that he could get in another, "Now about the Keomuku road."

Mr. Fraser, the board found, is determined that Lanai shall have full and complete recognition as an integral part of Maui County, and that extends to the budget meetings when the money is being passed out.

Voters Total 507.

Lanai is becoming a political factor not to be overlooked. Mr. Fraser pointed out on a number of occasion; There are 507 voters on the island at present, nearly twice as many as there were in the 1966 election. One of the reasons for the increase is that Lanai youngsters are reaching voting age. This portion of the electorate, Mr. Fraser points out, is keenly interested in government affairs and exercises its voting privilege with discretion.

Mr. Fraser and other Lanai leaders recognize that the $30,000 available for Lanai roads "is only a fly speck," to use Mr. Fraser's expression. "But it is a start," he went on to say.

Jim Munro readily agreed with County officials that it would be desirable to spend $5,000 or more of the amount for a complete survey, even if it does mean less road to start with. Lanai is confident that the board, having once recognized Lanai's needs will augment the $30,000 as time goes by and that eventually the county will do more for the Pineapple Island than replace a $67 cesspool cover.

Uncertainty of the pineapple market on the mainland, Lanai regards as "one of those things." But it is not allowed to interfere with the community's peace of mind, solidarity and intense joy of living in a land where every factor is favorable and better days loom just ahead.[59]

2.8 Land Tenure, Places, and Events in Paomaʻi Ahupuaʻa

Paomaʻi is an ahupuaʻa in the northern region of Lānaʻi of over 9,000 ac. Its unusual boundaries are explained in native traditions as the routes of the runner Pao. Several place names have been documented for Paomaʻi; however, none is specific to the proposed project location. One of the most notable traditions of Lānaʻi, in which the story of how honu (turtles) first came to Hawaiʻi is told, is associated with the coastal region of Polihua in the Kaʻā-Paomaʻi vicinity.

No native tenant claims were filed in the Māhele for Paomaʻi; the ahupuaʻa was identified as a Crown Land. The ahupuaʻa was leased by W. M. Gibson and later bought by Charles Gay; both individuals used the land for ranching. During the mid to late nineteenth century, the area was improved with government roads to ease the transport of goods from the area. Gay eventually sold

[59] *Maui News* Editorial, August 17, 1938, p. 1, c. 4; and p. 6, c. 1-3.

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the land to Hawaiian Pineapple Company, Ltd., and Paomaʻi lands were used for pineapple cultivation.

This section reviews the traditional place names of Paomaʻi, the history of the land during the Māhele, various native traditions, and informative historic accounts. In addition, an account is provided of the ranch-era cemetery that was established when Kōʻele was the commercial hub of the island.

2.8.1 Place Names of Paomaʻi

During his field work in 1921–1922, Kenneth Emory compiled a gazetteer of place names, which were also keyed with numbers to identify their location and features associated with each site. Emory (1969) referenced early maps, records and interviews with elder native residents of the island at the time. Since then a more thorough review of historical/archival documentation has been conducted as a part of developing the Lānaʻi Culture & Heritage Center, thus many place names and stories associated with them have been added to the collection.

Table 5 includes place names found in native accounts and land records, with reference to site numbers assigned by Emory (1969).

Table 5. Place names of Paomaʻi found in native accounts and land records

Place	Interpretation	Emory (1969)
Awalua	Two harbors/landings	287
Awalua iki	Little Awalua	288
Halalala	Passed away/on	268
Hale o Lono	Shrine of Lono	290
Hawaiʻilānui	Hawai'i's big day	275
Honowai/Honowae	Water cove	286
Honuaʻula	Red earth	272
Hoʻopāpālani	Touching the heavens	262
Kahue	The gourd	270
Kaiholena	The yellow flesh banana	89
Kakaʻalani	Name of wind	
Kalapuʻu	Cut hill	20
Kanāele	The boggy area	283
Kaʻokana	The land section	277
Kaʻōnini	Name of a gentle breeze	281
Kaunu-a-Kāne	The altar of Kāne	280
Kealakaha	The shoreline path	278

Place	Interpretation	Emory (1969)
Keonheʻeheʻe	The sliding sands/cinder	19
Keonohau		269
Kuamoʻo	Ridge line	273
Kukui	Kukui tree	267
Kukuikāhi	Single kukui tree	21
Laepālolo	Clay point	289
Lapaiki	Little ridge	284
Makaiwa	Frigate bird eyes, or mother of pearl eyes of an image	271
Nāimuhui	The joined/combined ovens	265
Ōpū	Clump	73
Panau	Rocking/moving up and down	
Paopao	Hollows, dug out areas	279
Pōhakuloa	Distant or long stone	285
Pohoʻula	Red hollow/depression	263
Pōkeana		282
Puʻuʻāleʻaleʻa	Hill of glee	264
Puʻu Kauwela	Hill in the heat	
Puʻu Lāʻau	Wooded hill	179
Puʻulala	Diagonal hill	
Umikililoa		274
Wāhiaʻahu	Broken cairn	276

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2.8.2 Land Tenure in Paomaʻi Ahupuaʻa

Information pertaining to native residency and land tenure in Paomaʻi Ahupuaʻa is fragmented, and most comes from historical accounts penned after 1840. The following narratives provide a summary of the land history.

Paomaʻi Ahupuaʻa (literally "sick Pao") is situated in the northern region of Lānaʻi, and contains 9,078 acres. It is bounded by Mahana on the east, and by Kaʻā on the west. The ahupuaʻa extends from the reef-lined fisheries, across the kula lands, and into the forest region. Major villages were located along the coast, where access to fisheries and nearshore water sources sustained the people. A significant portion of the Lānaʻi dry forest could be found on the kula lands, and gulches hosted seasonably collectible potable water. The forest cover in the uplands supplied people with access to necessary resources for daily life and sheltered crops cultivated there. Several places in the uplands of Paomaʻi were noted as gathering places for chiefly and community events. Paomaʻi was identified as belonging to Kamehameha III at the outset of the Māhele, though Charles Kanaʻina made a claim for the ahupuaʻa on behalf of his son, William C. Lunalilo. The kapu fish was heʻe, and the kapu wood was ʻaiea (*Nothocestrum*). No one held specific title to Paomaʻi at the close of the Māhele, but it later appeared in the government land inventory and was sold as a Royal Patent Grant.

No claims by native tenants for kuleana in Paomaʻi were identified in the records of the Māhele. Among the kingdom records found in collections of the Hawaiʻi State Archives which include references to Paomaʻi are the following communications:

> Aloha oe,
>
> Ke hai aku nei au i na inoa o na aina ponoi o ka Moi e like me kau i kauoha mai ai iʻau. Eia no ka papa inoa o na aina, a me na mokupuni ma lalo iho.
>
> … Mokupuni Lanai
>
> Helu 4 Paomai.
>
> Mokupuni o Kahoolawe Helu 5…
>
> Oia kaʻu i ike, a i lohe, a i kaulana no hoi, no Kamehameha I, K. II. I. III…[60]

The preceding is translated below.

> Aloha to you,
>
> I hereby tell you the names of the lands the rightly belong to the King, as you instructed me to do so. Here is the list of names of the lands and the islands, below:
>
> Island Lanai
>
> Number 4. Paomai.

[60] N. Namauu to G. P. Judd, Clerk, Na Aina Ponoi o ka Moi, Lanihuli Hale, Dekemaba 15, 1847. Hawaiʻi State Archives, Interior Department Lands.

> Island of Kahoolawe, Number 5…[61]
>
> In December of 1847, C. Kanaʻina reported the following to the Minister of the Interior. The original Hawaiian is on the left, and the translation is on the right.

Na Aina Ponoi o ka Moi aʻu i ike ai, a i lohe ai ma keia Pae Aina:	The King's own lands that I have seen and heard of in these Islands.
…Helu 4 Mokupuni o Lanai	Number 4. Island of Lanai.
Kaunolu	Kaunolu
Kaohai	Kaohai
Kalulu	Kalulu
Paomai	Paomai

Hawaiʻi State Archives, Interior Department Lands.
Translated by Maly.

Buke Māhele (Land Division Book), 1848

In preparation for the final "division" of lands between the king, konohiki, and government, a Buke Māhele was kept as a log of the agreed-upon division. This book is the basis of the Crown and Government land inventory now known as the Ceded Lands. There are thirteen ahupuaʻa on Lānaʻi. Disposition of ten ahupuaʻa was recorded in the Buke Māhele (1848) and before the Land Commissioners. Three ahupuaʻa were apparently dropped through an oversight on the part of the king, commissioners, and staff. The Buke Māhele records from Paomaʻi and its three major neighbors provide the details on tenure in Table 6.

Table 6. Māhele Information of Paomaʻi and Neighboring Ahupuaʻa

Ahupuaʻa	Claimant	Disposition	Buke Mahele (1848)
Kaʻā	Victoria Kamamalu	Awarded	Page 4, Jan. 27, 1848
Kamoku	No record	Crown	Record of Boundary Commission (1877)
Mahana	Wm. C. Lunalilo	Government	Page 22, Jan. 28, 1848
Paomaʻi	No record	Crown	Testimony of C. Kanaina, Dec. 1847

The konohiki, prohibited fish, and prohibited wood for Paomaʻi and neighboring ahupuaʻa are listed in Table 7.[62]

[61] Translated by Maly.

[62] Hawaiʻi State Archives, Interior Department Lands, 1848.

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Table 7. Prohibited fish and wood of Paoma‘i and neighboring ahupua‘a

Aina	Konohiki	Ia Hoomalu	Laau Hoomalu
Mahana	Kukaloloua	He‘e	‘Ahakea
Paoma‘i	Kauila	He‘e	Naio
Ka‘ā	Kaawa	Uhu	Naio

Noa Pali reported the prohibited fish and wood to Keoni Ana, Minister of the Interior, in the following, dated August 26, 1852.

Ia kapu o na konohiki me ka laau hoomalu. E like ke ke kanawai.

Konohiki	Aina	Ia	Laau
Makaio Kuanaoa	Ka‘ā	Uhu	Koko…
Kanaina	Mahana	He‘e	‘Ahakea
	Paoma‘i	He‘e	‘Aiea…
Pali	Kamoku	Uhu	Koko…

E ka mea kiekie nau e hooponopono keia ma kau keena

Noa Pali[63]

The report is translated below.

Forbidden fish of the konohiki and the prohibited woods. According to law.

Overseer:	Land:	Fish:	Wood:
Makaio Kuanaoa	Ka‘ā	Uhu	Koko…
Kanaina	Mahana	He‘e	‘Ahakea
	Paoma‘i	He‘e	‘Aiea…
Pali	Kamoku	Uhu	Koko…

Your highness, you straighten this out in your office.

[63] Hawai‘i State Archives, Interior Department Lands.

2.8.2.1 Native Tenants and Land Tenure in Paoma‘i

Records of the kingdom and subsequent government bodies contain documentation pertaining to residency, land use practices, and eventual fee-simple property rights. While no native tenant claims for kuleana were found in the books of the Mahele ‘ina, kingdom land records provide us with information on residents who came to live on Paoma‘i by the 1870s. Records prior to the 1870s offer little on the life and practices of early Paoma‘i resident. But on May 16, 1873, a group of 35 Hawaiians petitioned King Lunalilo regarding the Hawaiian lessee of Mahana, named Maeha, who was granted a lease (Lease No. 220) for the entire ahupua‘a of Mahana. Through their petition we learn that the 35 petitioners and families had moved from Mahana to Paoma‘i, and their petition describes the plight of the people. They also raised their concerns about the possible leasing of Paoma‘i to the foreigner Walter Murray Gibson.

O makou o ka poe nona na inoa malalo nei kekahi o kou makaainana na kauwa aou e noho kuewa ana maluna o Paomai, Mokupuni o Lanai.

Ke noi aku nei makou ia oe e oluolu oe e ae mai ia Paomai nei e hoolimalima makou me oe ma ka uku au e hai mai ai i ko makou mau luna ia Kamai, Kalili, Iwiole.

O makou he poe Kupa makou no ka aina ua noho a kulaiwi, aole no ka pono io o keia a makou e noho nei. Ke noho nei makou me ka hoomanawanui i ka wi no ko kamkou, no ko makou aloha i ka wahi i maa ia makou a mai ko makou mau Kupuna mai a mau makua a hiki wale ia makou.

Eia ko makou mau pilikia e hai aku ia oe i ka wa ia olua ka aina a moku ia wa, i ka lilo au nei ia Maeha ua Kipaku ia mai makou aia makou ma Paomai nei e noho nei.

I keia wa hou ke lohe hou nei no makou e hele mai ana ka haole e kipaku hou ia makou, aole makou e noho ma Paomai nei ina e nele mai ia oe e kii hele loa ana ka manu o Kaula, aohe punana e hoomoe ai.

I ko makou noonoo ana a me ka hoomaopopo ana o na malihini ka poe mai na aina e mai, ua lilo lakou i poe koikoi ma ka aina a o makou la ua like makou me na uhini i ko lakou mau maka.

E ike ia kakou hookanaka o kipa hewa ke aloha i ka Ilipuakea.

Ua oki.

Na ka Hui hoolimalima,[64]

1. Kamai
2. Iwiole
3. Kalili
4. Hau
5. Iosepa
6. Kala
7. Paa
19. Kahalemake
20. Apaki
21. Kukololoua
22. Paahao
23. Namilimili
24. Uilama
25. Kimo

[64] Hawai‘i State Archives, Interior Department Lands.

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8. Lawaole
9. Nawai
10. Puniai
11. Kahaulekini
12. Lukela
13. Naehu
14. Waiahao
15. Kahoolealeamaka
16. Palau
17. Kaaialii
18. Kawika
26. Keonehana
27. Holokahiki
28. Pia
29. Namauu
30. Kalawaia
31. Kailikea
32. Aikake
33. Kauwila
34. Kaai
35. Keawe

The petition is translated below.

> Greetings to you,
>
> We, the undersigned, some of your subjects, and your servants who are living as trespassers on Paomai, Island of Lanai.
>
> We make application to you, that you be kind and consent that Paomai be leased to us by you upon such rent that you may inform our representatives, Kamai, Kalili and Iwiole.
>
> We are natives of the land and have lived and become long residents, not because of the land that we have been living on being of much benefit. We are living in great fortitude and in famine, because of our love of the place which we are used to from our grandparents and parents, and down to us.
>
> These are our troubles of which we inform you, at the time you had the land and were leasing, we were satisfied then. When it was acquired by Maeha, we were driven off and we are now living here on Paomai.
>
> At this time, we are hearing again that the foreigner is coming to drive us off again, we are not to stay on Paomai. If we are denied by you, then the birds of Kaula will go for all time, as there is no nest to rest on.
>
> According to our thought and understanding, the strangers from foreign countries have become more important people in the land, and we are like grasshoppers in their eyes.
>
> Recognize us fellow men, or love will by mistake visit the Whiteskin.
> It's ended.
> Done by the Leasehold Association…[65]

Subsequent communications provide further documentation on the petition by the above cited natives, the eventual lease of Paomaʻi to W. M. Gibson, and the subsequent sale of the government's land interests to Charles Gay in 1906.

[65] Translated by Maly.

The correspondence below, dated June 12, 1873, is from Edwin O. Hall, Minister of the Interior, to P. Nahaolelua, governor of Maui.

Ua noi mau kekahi kanaka o Lanai he 35, e hoolimalima ia laku ma ka inoa o Kamai, Kalili a me Iwiole, kahi aina, o Paomai ka inoa.

He aina aupuni anei keia? Ina pela, ua lilo anei ia i ka hoolimalima paha i na makaainana, ma ka ohi makahiki, e like me na aina aupuni e ae o Lanai, au i hoike mai nei ma kau palapala o ka la 5 o Iune nei.

E hai mai oe i kou manao no keia mea.

Ke manao nei au, ina e ohi mau ana kahi mau dala i keia manaawa, no na makaainana mai, he pono ia. O ka lilo no ia.

Certain natives on Lanai, about 35, have applied to have leased to them, in the name of Kamai, Kalili and Iwiole, a certain land, Paomai by name.

Is this a Government land? If so, is same held by the residents under a tenancy at will, as is the case with other Government lands on Lanai, of which you made report upon in your letter of the 5th of this June.

Give your thoughts in regard to this matter.

I am of the opinion, if a certain amount could be collected from the residents at the present time, it would be a good thing, and the occupancy thereof must be granted…

E.O. Hall

Hawaiʻi State Archives, Interior Department Book, Volume 12:273
Translated by Maly.

P. Nahaolelua responds to E. O. Hall in the correspondence below, dated June 13, 1873.

> I have better give you a list of all the lands on Lanai: Pawili, Kamao, four Kealia, Kaunolu, Kalulu, Kamoku & Paomai. These are all the Government lands, and Gibson has acquired Six Lands, and three land remain.
>
> But it is all right according to what have been decided by you people. And the proper rent for these six lands, according to my belief, at Two Hundred Dollars per annum, and for the remaining lands for the first lease Two Hundred. That is what I think… P. Nahaolelua.[66]

The following correspondence from Walter Murray Gibson to H. A. Widemann, Minister of the Interior, documents his desire to lease some lands on Lānaʻi, including Paomaʻi. The letter is dated April 15, 1874. Gibson also included a sketch map, which is included here as Figure 20.

> I desire to lease the following Government lands situated upon the island of Lanai
>
> The Ahupuaa of Kaunolu
> The Ahupuaa of Kalulu
> The Ahupuaa of Paomai
> The Ahupuaa of Mahana
>
> Also the Ahupuaa of Kamoku, which is now under lease, nearly expired.

[66] Hawaiʻi State Archives, Interior Department, Lands.

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> I make this application on the ground that it is due as an act of justice on the part of the government, to concede to me a lease of these lands. I received a promise from the Interior Department that I should have a lease of these lands, and in consequence of this assurance, addressed to me Feb. 20th, 1863 by S. Spencer, Chief Clerk, by authority of the then Minister, H. R. H. Prince L. Kamehameha. I was led to make many improvements, such as opening a road to a landing, making fences, and other works;—all of which proved a loss in consequence of the denial by a succeeding Minister of a lease as promised by his predecessor: and this took place, notwithstanding the solemn assurance from the Department, "that no under advantage will be taken, if you should proceed to enclose and cultivate any portion of the Government land, (of Lanai), or that you will assume any risk by so doing."
>
> It is true, I received a lease from your Excellency's immediate predecessor of a few small government lands, but these are mere unimportant strips, or areas within my own lands, and unavailable to anyone else, and no portion of the lands above mentioned, which were especially promised, and upon which I had made some improvements.
>
> I will pay the rents priced by the Government, semi-annually in advance.[67]

An Interior Department memo regarding Gibson's application to lease Lānaʻi lands is dated June 9, 1874.

> The application on lease:
>
> The Ahupuaa of Kaunolu
> The Ahupuaa of Kalulu
> The Ahupuaa of Kamoku
> The Ahupuaa of Mahana
> The Ahupuaa of Paomai
>
> As the chief portion of natives on Government lands on Lanai, reside on Kaunolu and Kalulu on the northern side of the mountain ridge, therefore Mr. G. proposes to reserve natives, to be rented to them, all of Northern Kaunolu and Kalulu,--the summit of the ridge to be the dividing line between such lands, and the northern portion of these two districts, and he desires to confine his application to lease government lands on Lanai at present to the southern points of Kaunolu and Kalulu, with the sea of Kamoku on expiration of present lease.[68]

[67] Hawaiʻi State Archives, Interior Department Lands.

[68] Hawaiʻi State Archives, Interior Department Lands.

Figure 20. 1874 sketch map of Lānaʻi depicting the disposition of the lands (W. M. Gibson, Hawaiʻi State Archives)

On August 17, 1874, after acquiring the lease for Paomaʻi, Gibson released the following statement in a Hawaiian newspaper, forbidding natives from the land.

> Wherefore, a lease for the lands of Kaa and Paomai, Island of Lanai, has been secured by me, I now forbid all people from releasing their livestock, Horses, Cattle, Sheep, Goats, Pigs and Turkeys, to roam on these lands. Those who trespass will be prosecuted as allowed by the law.[69]

This indenture, dated September 30, 1874, documents the lease agreement between Wm. L. Green, the Minister of the Interior, and Walter Murray Gibson. The twenty-year lease includes the ahupuaʻa of Paomaʻi.

> This Indenture made this 30th day of September A.D. 1874 between His Excellency W. L. Green His Hawaiian Majesty's Minister of the Interior for and in behalf of the Hawaiian Government of the first part and Walter Murray Gibson of the Island of Lanai of the second part. Witnesseth that for and in consideration of the rents covenants and agreements hereinafter reserved and contained on the part and behalf of the said party of the second part, his executors administrators and assigns to be paid kept and performed he the said party of the first part hath demised and leased

[69] Walter M. Gibson, "Na Aina Ma Lanai," *Nupepa Kuokoa*, Augate 29, 1874, aoao 3. Translated by Maly.

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and by these presents doth demise and lease unto the said party of the second part his executors administrators and assigns.

All that tract or parcel of Land situate on the Island of Lanai one of the Hawaiian Islands known as "Paomai." To have and to hold all and singular the said premises above mentioned and described with the appurtenances thereunto belonging unto the said party of the second part his executors administrators and assigns for and during the term of Twenty Years to commence from the first day of August A.D. 1874, the said party of the second part his executors administrators and assigns yielding and paying therefore from and immediately after the commencement of the said term and during the continuance thereof unto the said party of the first part and his Successors in office the annual rent of Fifty ($50) Dollars over and above all leases changes and assignments to be levied or imposed thereon by Legislative Authority the first payments of the said rent to be made on the first day of August next ensuing the date last mentioned and the said party of the second part for himself and his executors administrators and assigns does consent grant promise and agree to and with the said party of the first part and his Successors in Office by these presents in manner following that is today that he the said party of the second part his executors administrators and assigns shall and will well and truly pay or cause to be paid unto the said party of the first part or his Successors in office the said annual rent above reserved according to the true intent and meaning of these presents clear of and over and above all taxes impositions changes and assessments whatsoever and also that he the said party of the second part his executors administrators and assigns shall and will from time to time during the term of this present demise bear, pay, and discharge all taxes, changes impositions and assessments and ordinary and extraordinary which may hereafter at any time during the continuance of the said term be laid, imposed, assessed or charged on the said demised premises on any part thereof on upon any improvements made on to be made thereon on which may be imposed on changes on the said party of the first part on his Successors in effect for or in respect of the said promises or any part thereof and shall and will indemnify the said party of the first part and his successors in office, if from and against all damages, costs and changes which he made at any time sustain or be put to by reason of any neglect in the due and punctual discharge and payment of the said taxes impositions charges and assessments.

And also that he the said party of the second part his executors administrators and assigns shall and will bear, pay and discharge at his own cost and expense all costs and charges for fencing the whole on any part or parcel of the above demised premises if such fencing should be so required by any law now in force or that may be hereafter enacted by Legislative authority, and shall and will indemnify the said party of the first part and his successors in Office of from and against all damages, costs, expenses and charges which he may at any time sustain by reason of any neglect or refusal of the party of the second part his executors administrators and assigns in the performance of the promises and agreements last aforesaid and also that he the said party of the second part his executors administrators and assigns shall not nor will at any time during the term hereby granted, do or commit or permit to be done any willful or voluntary waste spoil or destruction in and upon the above

demised premises on any part thereof or cut down trees now growing, or being, or which shall hereinafter grow or be in and upon the above demised premises or any part thereof and will at the end on other sooner determination of the said term hereby granted peaceably and quietly lease and yield up unto the said party of the first part his successors in office all and singular the premises hereby demised with all erections buildings and improvements of whatever name or nature now on or which may be hereafter put set up erected and placed upon the same in as good order and condition in all respect (reasonable use wear and tear excepted) as the same one at present or may hereafter be put by the said party of the second part his executors administrators and assigns. And also that he the said party of the second part, his executors or administrators or any of them shall not nor will at any time during the continuance of the said tm demise let set, assign over the said premises or any part thereof to any person or persons whatsoever for any term or time whatsoever without the license and consent of the said party of the first part or his Successors in office in writing under his or their hands first had and obtained for such purpose and the said party of the first part for himself and his Successors in office doth covenant and agree to and with the said party of the second part his executors administrators and assigns by these presents that the said party of the second part his executors administrators and assigns shall or may at all times during the said term hereby granted by and under the annual rent, covenants, conditions and agreements herein contained peaceably and quietly have, hold, occupy all and singular the said premises hereby demised and every part and parcel thereof with the appurtenances (except as before excepted) without the let trouble hindrance molestation interruption and denial of the said party of the first part his Successors in office or of any person or persons whatsoever lawfully claiming or to claim the same or any part or parcel thereof. Provided always and these presents are upon this condition nevertheless and it is the true intent and meaning of these presents that if it shall happen that the annual rent herein before reserved shall be behind and unpaid in part or in all by the space of Thirty Days after the same ought to be paid according to the reservation aforesaid and no sufficient distress can or may be found in and upon the premises whereby the same with the arrears thereof (if any shall happen to be) can be made on if the said party of the second part his executors and administrators shall demise, set, let or assign the said premises or any part thereof to any person or persons for any term or time whatsoever without the license or consent of the party of the first part or his Successors in Office first had and obtained in writing or if the said party of the second part his executors administrators and assigns shall not well and truly observe, keep and perform all and singular the covenants and agreements on his part to be observed kept and performed according to the true intent and meaning of these presents that then and from thenceforth in any of the said cases it shall and may be lawful to, and for the said party of the first part and his Successors in Office without warrant on other legal proofs into and upon the said hereby demised premises or any part thereof in the name of the [illegible] and the same to have again, repossess, and enjoy as in his first and former estate and right. This Indenture in anything hereinbefore contained to the contrary thereof in any wise notwithstanding. In witness whereof

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> the parties to these presents have hereinto set their hands and seals the day and year first above written…[70]

Subsequently, Gibson published another announcement in the Hawaiian newspaper on October 3, 1874, declaring his lease of Paoma‘i, and forbidding the release of livestock onto his leased land.

> The one whose name is below, and obtained a leases for a term of twenty years for the land of Paomai on the island of Lanai, therefore All people are notified that they may not release their livestock, horses, cattle, sheep, goats, pigs and turkeys without permission, or they will be prosecuted pursuant to the law.
>
> Walter M. Gibson (Kipikona)
> Honolulu, Oct. 1, 1874.[71]

The indenture below, dated January 1, 1878, records the lease from the Commissioners of Crown Lands to Walter M. Gibson. The twenty-year lease includes the lands of Kamoku and Kalulu, with Paoma‘i.[72]

> This Indenture, made this first day of January, A.D. 1878 between the Commissioners of Crown Lands of the first part, and Walter M. Gibson of Lanai of the second part. Witnesseth, that for and in consideration of the rents, covenants and agreements herein after reserved and contained, on the part and behalf of the said party of the second part, his executors, administrators and assigns, to be paid, kept and performed, they, the said parties of the first part, by virtue of the authority in them vested, by the Act entitled "An Act to relieve the Royal Domain from Encumbrances, and to render the same inalienable," approved January 3rd, 1865, have demised and leased . . . unto the said party of the second part . . . All those tracts and parcels of land, situated in Island of Lanai, one of the Hawaiian Islands, known and described as follows, to wit:
>
> The Ahupuaas of Kamoku, and Kalulu, except the timber trees, and all young trees fit and proper to be raised and reserved for timber trees, now growing or being, or which shall hereafter grow, or be in and upon the above demised premises . . . together with free liberty of ingress and regress, to and for the said parties of the first part, and their successors in office . . . for and during the term of Twenty years, to commence from the first day of January a.d. 1878 . . . paying there for, from and immediately after the commencement of the said term . . . unto the said parties of the first part . . . the yearly rent of Four Hundred dollars, payable semi-annually, over and above all taxes…
>
> Jno O. Dominis,

[70] Bureau of Conveyances, Liber 40, p. 356–359.

[71] Walter M. Gibson, "Aina ma Lanai!" *Nupepa Kuokoa*, Okatoba 3, 1874, aoao 3. Translated by Maly.

[72] Receipt of rents paid on Kamoku and Kalulu are recorded from May 19, 1882 through July 2, 1888. Beginning August 1, 1882, receipts of payment for lease of Crown Land of Paomai are recorded through August 21, 1888.

> Commissioner and Land Agent.[73]

According to the Interior Department,[74] the following are the lengths of the coastlines for the lands listed, followed by the disposition of the land.

Kamoku	1.54 Mile	Crown
Kaa	11.52 Miles	H.R.H. Keelikolani
Paomai	5.56 Miles	Crown

In the letter below, dated September 9, 1887, Robert Hoapili Baker, governor of Maui, writes to L. A. Thurston, Minister of the Interior, because the natives of Lāna‘i have inquired about the status of government lands.

> Aloha to you – I have been instructed by the natives of Lanai, to inquire of your excellency about some Government lands there on the island of Lanai: Kalulu, Kaunolu, Kamao, Mahana, Kamoku and Paomai. Because the above named lands are still under lease to W. M. Gibson, and now the natives living on these lands are in trouble. Therefore, I ask your excellency, are these lands above listed under lease to W. M. Gibson, or not?
>
> They wish to know the truth about this from your honor, they trusting that their rights and benefits are with you.[75]

The following excerpt is from a correspondence by W. D. Alexander to L. A. Thurston. In it, Alexander identifies Paoma‘i Ahupua‘a as a Crown Land. The letter is dated January 18, 1889.

> Dear Sir – By some inadvertence I omitted the land of Paomai, Lanai, area 9079 acres, in the list of unassigned lands occupied by the Commissioners of Crown Lands.[76]

The indenture below records a twenty-five-year lease from the Commissioners of Crown Lands to F. H. Hayselden. The lease includes the ahupua‘a of Kamoku and Paoma‘i.

> This Indenture, Made this Nineteenth day of December, A.D. 1890. Between The Commissioners of Crown Lands of the first part, and F. H. Hayselden of the second part. Witnesseth, that for and in consideration of the rental, covenants and agreements hereinafter reserved and contained on the part and behalf of the said party of the second part, his executors, administrators and assigns, to be paid, kept and performed, they, the said parties of the first part, by virtue of the authority in them vested, by the act entitled, "An Act to Relieve the Royal Domain from Encumbrances, and to render the same Inalienable," approved January 3d, 1865,

[73] Hawai‘i State Archives, Series 369, Vol. 1 Crown Land Leases.

[74] Hawai‘i State Archives, Interior Department Letter Book, 1878, Vol. 15:110.

[75] Hawai‘i State Archives, Interior Department Lands.

[76] Hawai‘i State Archives, Interior Department Lands.

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have demised and leased, and by these presents do demise and lease, unto the said party of the second part, his executors, administrators and assigns, all of those tracts and parcels of lands situate on the Island of Lanai, Hawaiian Islands, known as the Ahupuaas of Kamoku and Paomai, by their ancient boundaries or as may be hereafter determined by legal authority; excepting therefrom all of the Kuleanas and rights of native tenants; and especially canceling and annulling those certain indentures of Lease of the same premises made between the Commissioners of Crown Lands and W. M. Gibson dated January 1st, 1878 and August 1st, 1874 [see leasehold records in dates referenced above] except the timber trees, and all young trees fit and proper to be raised and preserved for timber trees now growing or being or which shall hereafter grow, or be in and upon the above demised premises, or any part there; together with free liberty of ingress, egress, and regress to and for the said parties of the first part, and their successors in office.

To Have and to Hold, all and singular, the said premises above mentioned… unto the said party of the second part… for and during the term of Twenty five (25) Years, to commence from the First day of January A.D. 1891… Paying therefore the yearly rental of Five Hundred ($500.00) Dollars, over and above all taxes, charges and assessments to be levied or imposed upon the said premises by Legislative Authority.[77]

When Walter Murray Gibson died in 1888, his estate was inherited by one of his children, a daughter Talula who married Frederick Hayselden. Prior to Gibson's death, Hayselden had been appointed administrator of the assets. In 1896, the liens held on the Gibson estate were in arrears and foreclosure proceedings initiated. Reference to leasehold and fee-simple land title, including Paomaʻi Ahupuaʻa, was found in the foreclosure notice:

In the Circuit Court of the First Judicial Circuit, Republic of Hawaii. In equity - S. M. Damon, J. H. Fisher and H. E. Waity. Copartners under the firm name of Bishop and Company, plaintiffs, vs. Cecil Brown, Administrator with the will annexed of the Estate Walter Murray Gibson, and Trustee of the Estate of said Walter Murray Gibson, deceased, under said will, and Jane Walker, Executrix under the will of J. B. Walker, deceased, and H. E. McIntyre, in his own behalf, and as Executor under the will of said J. S. Walker; Talula Lucy Hayselden, and Frederick H. Hayselden, her husband; Wilder's Steamship Company, a corporation; Walter H. Hayselden, Lucy T. Hayselden, Frederick H. Hayselden, Junior, a minor; David Kalakaua Hayselden, a minor; and Rachel K. Hayselden, a minor, defendants.--Foreclosure Proceedings.

Pursuant to decree of foreclosure and sale, made in the above entitled suit and Court, May 11th. A.D. 1896, notice is hereby given that the property hereunder described will be sold at public auction at the Court House (Aliiolani Hale) in Honolulu, Island of Oahu, Hawaiian Islands, on Wednesday, August 26th, at 12 o'clock Noon, said sale to be confirmed by said Circuit Court.

[77] Bureau of Conveyances, December 19, 1890, Lease No. 167, Liber 128, p. 276–279. Carried over from leasehold agreements dated September 30, 1874 and January 1, 1878.

List of The Property… Leaseholds.

First.—Lease No. 167 from the Hawaiian Government of Paomai containing 9078 acres, and of Kamoku, containing 8291 acres, expiring January 1, 1916, annual rental $500, payable semi-annually in advance…

Personal Property. As follows:

The sheep, cattle and horses belonging to the said estate of W. M. Gibson on said Island of Lanai, numbering 24,000 sheep, more or less, 550 cattle, more or less, 200 horses, more or less; also all wool presses, wagons, carts, harnesses, tools, implements, chattels, household furniture and effects belonging to the estate of W. M. Gibson, situate on said Island of Lanai…

Maps of the property to be sold can be seen at the Hawaiian Safe Deposit and Investment Company, 408 Fort street, Honolulu, and for further information apply to the undersigned.

P. C. Jones, Receiver.
Office with the Hawaiian Safe Deposit and Investment Company.
Dated Honolulu. May 25, 1896.[78]

The following is from a 1901 report of the Governor of Hawaiʻi.[79] The report lists lands known as Crown Lands that are now classed as public lands, one of which is Paomaʻi.

Lanai		
Paomai	Acres	9,000.00
	Lease No.	167
	Annual Rental	[combined with Kamoku]
	Expires	Jan. 1916
	--Acres taken for settlement purposes	
	Estimated Value	$12,000.00
	Remarks	Grazing land

2.8.2.2 Exchange of Government and Crown Lands on Lānaʻi to Charles Gay

When Charles Gay and family began to purchase the Gibson-Hayselden land interests on Lānaʻi, Gay recognized that if they were to make a go of their business efforts that they would need to hold title to the majority of land on the island. The initial acquisition began in August 1902, with subsequent conveyances recorded between 1903 and 1927. While Charles Gay was purchasing land on Lānaʻi he was also mortgaging the properties to continue acquisition of larger holdings. This kept him in debt to a number of parties. Walter Giffard, a friend of Gay's, and also an officer of W. G. Irwin and Company, which already owned the ahupuaʻa of Kaʻā and Kaʻōhai, and held mortgages under the Hayseldens, was quietly enlisted by Gay to assist with brokering a land exchange to bring the public lands on Lānaʻi under Gay's ownership.

[78] "Lanai - Notice of Sale Under Decree of Foreclosure and Sale," *Hawaiian Gazette*, June 23, 1896, p. 4.

[79] Hawaiʻi State Archives, 1901, p. 12.

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In June 1903, the Commissioner of Public Lands agreed to allow the Gibson heirs to transfer interest in the public lands to Charles Gay. In 1906, Territorial Governor George R. Carter and James Pratt, Commissioner of Public Lands in the Territory, engaged in the land exchange deal with Charles Gay. Gay would transfer valuable pieces of land in the Honolulu District to the territory in consideration of title of the government lands on Lānaʻi, covering Paomaʻi and seven other ahupuaʻa, to him in fee-simple. Giffard and Irwin and Company agreed to facilitate the exchange. Representative Lincoln McCandless sued Carter, Pratt, and Gay on the premise that the public lands on Lānaʻi should be granted to homesteaders. A court case evolved, and important documentation regarding environmental conditions, failed business efforts, residency of the native population on Lānaʻi, and assessments of the land on Lānaʻi were recorded. The case went all the way to the United States Supreme Court, which found in favor of the territory and Charles Gay, and resulted in the extinguishing of all government claims on public lands on Lānaʻi.

The public lands recorded under the name of Walter Giffard via Land Patent Grant No. 5011 were transferred to Charles Gay on February 10, 1907 for $1.00. On April 10, 1907, Gay mortgaged the entire Lānaʻi holding to W. G. Irwin Company, combining all outstanding debts to the amount of $337,279.98. The debt owed by Gay to Irwin, along with the degraded landscape and inability of the ranch operations to support economic gains, placed the family under extreme financial distress. On September 7, 1909, with foreclosure looming, Gay deeded all of the Lānaʻi holdings and assets to W. G. Irwin and Company.[80]

The narratives below, ordered chronologically, include selected documentation on the initial acquisition of Lānaʻi lands by Charles Gay, and the series of transfers of Paomaʻi and other "ceded" lands from the territorial government to his private holdings. Gay quickly lost financial control and the lands transferred to other parties, eventually becoming the holdings of the Hawaiian Pineapple Company, Ltd., in 1922.

The following is an excerpt from a commissioner's deed conveying William M. Gibson's estate to Charles Gay. The document was recorded on August 28, 1902. Included in Gibson's estate are lands, livestock, and other personal property on the island of Lānaʻi.

> This Indenture made this 28th day of August A.D. 1902, between Albert Barnes, Commissioner, of Honolulu, Island of Oahu, Territory of Hawaii of the first part, and Charles Gay of Makaweli, Island of Kauai, in said Territory, of the second part…
>
> Leases
> … Second. All the property conveyed by Frederick H. Hayselden on January 24th A.D. 1891, to wit. That certain Indenture of Lease of the Ahupuaa of Kamoku and Paomai, on the Island of Lanai made by and between the Commissioners of Crown Lands of the first part and said Frederick H. Hayselden, of the second part, dated December 19th, 1890, of record in liber 128, fols. 276–279.

The lease document from September 1902 excerpted below transfers the lease of Crown Lands of Kamoku and Paomaʻi from F. H. Hayselden to J. F. Colburn.

> The Indenture executed this Twelfth day of September A.D. 1902, between Frederick H. Hayselden, party of the first part, and John F. Colburn, party of the

[80] Bureau of Conveyances, Liber 316, p. 474–479.

> second part, both of the City of Honolulu, Island of Oahu, Territory of Hawaii. Witnesseth: That the said party of the first part, for and in consideration of the sum of Ten Dollars, ($10.00), to him in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, hath bargained and sold, and doth by these presents, sell, assign, transfer and set over unto the said party of the second part, that certain Indenture of Lease executed on or about the 19th day of December, A.D. 1890, of record in Liber 128, pages 276 et seq., wherein and whereby the then Commissioners of Crown Lands demised and leased unto the said party of the first part, those certain lands situated on the Island of Lanai, in the then Kingdom, and in the present Territory of Hawaii, more particularly known and described as the Ahupuaas of Kamoku and Paomai, together with all and singular the rights and equities of said party of the first part to and under said lease, and in and to the lands described therein and to the possession of said lands, and all erections and improvements that have been placed thereon by said party of the first part, or by any other person acting or claiming under said party of the first part in the premises; and all other the additions to and improvements upon said lands, as the same exist at this date. To have and to hold the said described lease, rights, equities and premises unto said party of the second part for and during all the rest, residue and remainder of the term limited in and by said described lease, and to his executors, administrators and assigns. And said party of the second part, for himself, his executors, administrators and assigns in consideration of this foregoing assignment, doth hereby covenant and agree to and with the said party of the first part, and his executors and administrators, that the said party of the second part, will well and truly keep, observe and perform all and singular the covenants and agreements in said recited lease expressed and made this obligatory upon the lease therein named, to wit; the said party of the first part.
>
> In witness whereof, the said party of the first and second parts have hereunto, and to another instrument of even date and tenor, set their hands and seals, at Honolulu aforesaid, the day and year first hereinabove written.[81]

On July 18, 1906, James Pratt, Commissioner of Public Lands, wrote to George R. Carter, governor of the Territory of Hawaiʻi, regarding land exchange on Lānaʻi. An excerpt of the letter is below.

> I beg leave to acknowledge receipt of your letter of 13th inst., re Public Lands of Lanai, and in reply to same will state that about three weeks ago Mr. Giffard again brought up the subject of exchange of Bishop Wharf and approaches for balance of Lanai lands. He stated that the smallest sum he could purchase the wharf for was $125,000.00 and this amount was about $15,000.00 in excess of the value of Lanai lands, in opinion of Mr. Irwin…
>
> His first agreement with Gay, (I understand) was to sell his 29000 acres for $80,000.00, then it is stated that he cut the figure to $60,000.00 and now Mr. Giffard says $40,000.00. Mr. Irwins' lands have no running water thereon, and that portion

[81] Bureau of Conveyances, Liber 240, p. 159–160.

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(about 500 acres) that might be classed as agricultural land (if watered) has no water shed from which the storm waters could be conserved.

The Government property covers very nearly the entire water shed and reservoir sites, and also practically all the natural running water. With a proper conservation of water, plus the natural precipitation (at an average elevation of 1600 feet above sea) our land, to the extent of about 7500 acres could be cultivated in pines or other products that do not require so great a quantity of water as sugar cane must have.

Prior to the occupancy of Lanai by the present lessee, rain water conserved in cisterns satisfied all demands for ordinary purposes about the ranch houses of W. M. Gibson, F. H. Hayselden and other residents of the upper plateau.

This would indicate that there is a considerable and regular rainfall on these lands, and, as 30 to 50 inches annually is fully sufficient for many crops, I believe that I make no mistake in classing about 7500 acres of our land in neighborhood of "Koele" as "Agricultural," leaving about 39000 acres "Pastoral," and 1000 acres "Forest and Water reserve."

Mr. Irwins land (without water) is and always will be classed as Pastoral land unless handled with the Government lands.

The principal owners on Lanai at this time are as follows:

Hawaii Terr.	about 47,298.14
W.G. Irwin et als	about 29,103.10
Chas Gay	about 11,055.24
Kuleanas & Grants	about 1,497.53
Total	88,954.01

I believe that the comparative real values are about as follows:

Government	130,000.00
Irwin	40,000.00
Gay	20,000.00
Kuleanas & Grants	12,000.00

In case it is believed that there is a good opportunity at this time to dispose of these lands at a fair valuation, I would respectfully suggest that the best way to settle their value would be to send a couple of good men over there and let them appraise the premises.[82]

On September 29, 1906, Paul Jarrett wrote to Jas. W. Pratt, the Commissioner of Public Lands, regarding his observations of lands on the island of Lāna'i. He gives descriptive classifications of the types of lands and assigns values to them.

In compliance with your request for appraisement of the Public Lands on the Island of Lanai for Pasturage purposes, I beg to submit the following report which I have carefully prepared according to my personal observation of these lands and

[82] Hawai'i State Archives, DLNR 2-21.

investigation as to their climatic conditions; and from data obtained at your office regarding names, acreage and location of these lands on the map of Lanai island:

…

PAOMAI 9078 A[cres]

No Kul[eana].

About 7818 acres are situated on the windward side and this area consists of land that is very barren, being most exposed to the trade winds, of the Public Lands on Lanai, the only vegetation being a few scattered and stunted Pua and Hualama trees growing upon the top section of this land. A very large gulch runs from top to bottom of this windward section, and the lower portion is very stony and cut up by ravines and gulches, with sandy soil near the beach. I value this windward section of about 7818 acres at 50cents per acre = $3909.

About 1260 acres of this land is situated on the leeward side of the island and this area is fairly good land being slightly exposed to the trade winds. It is covered with Pilipiliula grass, although this grass is not fattening for livestock. At the extreme top boundary of this section which is very narrow, is a small sprinkling of scrubby trees. I value this leeward section of about 1260 acres at $1.50 per acre = $1890.

The following article carries a long, but explicit title: "Calls a Halt on the Lanai Deal. L. L. McCandless Secures a Temporary Injunction Restraining the Governor and the Land Commissioner from Carrying Out the Proposal to Exchange Lanai Government Lands for Land in Other Parts of Territory." It was published on December 15, 1906 in the *Pacific Commercial Advertiser*.

The proposed exchange of the government lands on the island of Lanai has been checked. Late yesterday afternoon Senator L. L. McCandless secured an injunction from Circuit Judge Robison, preventing Governor Carter and Land Commissioner Pratt from carrying out the proposed exchange. The move by McCandless was a big surprise and caused a great deal of comment in official circles this morning when the details of the course became known.

Senator McCandless opposition to the proposed exchange whereby Charles Gay or probably the Spreckels interests will secure complete control of the island, is well known. The island comprises 86,698 acres of land and out of this over 47,000 acres are government land. One special reason for McCandless opposing the government allowing its control of the island to pass, is the fact that there [are] at least two good harbors on the island. All water front control would pass from the Territory if the transfer be made.

The allegations in the bill in equity are of some length. The bill first sets forth the usual facts that McCandless is a resident of the territory, that Carter is governor and Pratt land commissioner. It then continues:

"First. All those certain public lands known as and called Kamoku containing an area of 8,291 acres, and those public lands known as Paomai containing an area of 9,078 acres all of said lands being now leased to Charles Gay by the Territory of Hawaii under Government Lease No. 167, dated December 19th, 1890, for the term

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of 25 years, said lease expiring January 1st, 1916, at an annual rental of $500 lawful money of the United States of America…

"And your orator further showeth unto your Honor that the island of Lanai, Territory of Hawaii, contains a total area of not more than 86,400 acres and that out of said total area of 86,400 acres the Territory of Hawaii holds as public lands only the lands above described by name containing a total area of 47,669 acres, that said 47,669 acres constitutes more than one-half of the total area of said island of Lanai; "And your orator further showeth unto your Honor that on the 28th day of November, 1906, the respondent herein George R. Carter, as Governor of the Territory of Hawaii caused to be promulgated the following order, to wit:

"LANAI LANDS. Notice is hereby given that having decided an exchange of the Public Lands on the Island of Lanai to be advisable, the Commissioner of Public Lands is prepared to receive offers of other lands that are equal in value to those of Lanai, and of greater immediate service to the Territorial government, from any responsible person, up to and including Saturday, the fifteenth day of December, 1906.

G.R. Carter
Governor.

On February 1, 1907, title of government lands—including Paomaʻi Ahupuaʻa—was sold as Land Patent Grant No. 5011 to Walter Giffard, who held title to the land in a mortgage to Charles Gay. The description of Paomaʻi in the grant followed the same survey as recorded in the Boundary Commission proceedings of 1891, and are cited in the following section of the present study.

The introductory narratives of the grant provide the following recitals:

On Land Exchange—By this Patent the Governor of the Territory of Hawaii, in Conformity with the Laws of the United States of America and of the Territory of Hawaii, makes known to all men that he has this day granted and confirmed unto Walter M. Giffard for the consideration of the transfer to the Territory of Hawaii by the said Walter M. Giffard of certain lands situate in the District of Honolulu, Island of Oahu, Territory of Hawaii as evidenced by that certain Warranty Deed of the said Walter M. Giffard to the Territory of Hawaii of even date herewith and of record in the office of the Registrar of Conveyances at Honolulu, Island and County of Oahu in Liber 291 at page 1 et seq. all of the land situate on the Island of Lanai bounded and described as follows:

Certificate of Boundaries of the land of Paomai [Crown Land][83]

The excerpt below is from an article about the report on Lānaʻi lands which indicates that the Committee on Public Lands is in favor of the land exchange. The article is entitled "The Report

[83] The original Surveys of the Boundary Commission (AD 1877 & 1891), and boundaries and features recorded on Kingdom Registered Map No. 1394 were the source of the survey notes in Land Patent Grant No. 5011; and subsequently the source of the ahupuaʻa surveys recorded in Land Court Application No. 862.

on Lanai: Findings of Committee in Favor of the Big Deal," and was published in the Pacific Commercial Advertiser on May 2, 1907.

A long report from the Committee on Public Lands on the Lanai deal was presented. The document was a lengthy one of fifty-eight pages, the reading of which occupied over an hour and the clerk had to call upon the interpreter to help him out…

"Second Class Grazing Land. Under this division would fall almost the whole of Kamao and the makai portions of Kealiaapuni, Kaunolu, Kalulu and Kamoku on the kona side of the island; also on the windward side of the island probably the whole of Paawili, Kaunolu, Mahana and Paomai, although we examined only a portion of the mauka portion of Paomai and Mahana. All of this country is good grazing land. The makai portions of the Kona government lands have the heaviest growth of pili grass that I have seen anywhere in the islands.

There are probably 5000 acres of second-class agricultural and first-class grazing land on the portion of the island which we did not see. The secondclass grazing land, approximately 30,000 acres, would certainly be worth $1 per acre, averaging good and bad."

2.8.2.3 Surveys and Boundary Commission Records from Paomaʻi Ahupuaʻa

Following the Māhele ʻĀina, there was a growing movement to fence off land areas to control access to resources which native tenants had traditionally been allowed to use. By the 1860s, foreign land owners or lessees and business interests petitioned the Crown to have the boundaries of their respective lands—which were the foundation of plantation and ranching interests—settled. In 1862, the king appointed a Commission of Boundaries, a.k.a. the Boundary Commission, whose task was to collect traditional knowledge of place pertaining to land boundaries and customary practices, and determine the most equitable boundaries of each ahupuaʻa that had been awarded to aliʻi, konohiki, and foreigners during the Māhele. The commission proceedings were conducted under the courts and as formal actions under the law. As the commissioners on the various islands undertook their work, the kingdom hired or contracted with surveyors to begin the surveys, and in 1874, the Commissioners of Boundaries were authorized to certify the boundaries for lands brought before them.[84]

Primary records in this collection from Lānaʻi were recorded from 1876 to 1891. The records include testimonies of elder kamaʻāina who were either recipients of kuleana in the Māhele, holders of Royal Patent Land Grants on the island, or who were the direct descendants of the original fee-simple title holders. The Boundary Commission proceedings provide a significant record of traditional and customary knowledge of native residents of Lānaʻi, with personal informant memories dating back to ca. 1800. The narratives cited below include several sources of documentation: i) letters of request and announcements in preparation for establishing the boundaries; ii) letters from the surveyors in the field; iii) excerpts from surveyor's field books (Register Books); iv) the record of testimonies given by native residents of Lānaʻi; and v) the entire record of the Commission in certifying the boundaries of each ahupuaʻa on Lānaʻi. The resulting documentation covers descriptions of the land, extending from ocean fisheries to the mountain

[84] W. D. Alexander in Thrum's Hawaiian Annual, 1891:117–118.

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peaks, and also describes traditional practices, land use, changes in the landscape witnessed over the informants' lifetime, and various cultural and natural features across the land.

The native witnesses usually spoke in Hawaiian, and in some instances, their testimonies were translated into English and transcribed as the proceedings occurred. Other testimonies from Lānaʻi have remained in Hawaiian, untranslated, until development of this manuscript. Translations of the Hawaiian-language texts below were prepared by Kepā Maly.

Table 8 lists the place names of Paomaʻi and adjoining lands that are documented through surveys of the Boundary Commission.

Table 8. Place names of Paomaʻi and adjoining lands

Place Name/Alternative Spelling	Characteristic, Feature	Meaning
Awalua	Village site and landing on coast of Paomai	Twin landings
Halala/Hālala	A place along the old trail (road) and near the boundary of Mahana and Paomai Ahupuaʻa	Big, swollen, large
Hale o Lono	An ancient heiau on the coast, that marks the boundary between Paomai and Kaa	House of the god Lono.
Honowai	A village site in Paomai, east of Awalua	Fresh water cove
Honuaula/Honuaʻula	A village site in Paomai, east of Awalua	Red earth
Kahue	A village site in Paomai, east of Awalua	The gourd
Kakaalani/Kakaʻalani	A place situated along the boundary of Mahana and Paomai, having been identified as the "crest of the watershed," and about 500 ft. northwest of Keoni's house	Rolling, turning over the heavens.
Kanaele	A village site in Paomai, east of Awalua.	The rocky crevices
Ka Pohaku Ahi/ Pohaku Ahi/Ka Pōhaku Ahi	An area along a gulch near the upper boundary of Paomai and Mahana (near the divide between Paomai and Mahana gulches)	The fire stone
Kealakole	Area near boundary of Paomai and Mahana Ahupuaa, by trail to shore, and white house	Red earth path
Lae wahie / Ka Lae o ka Wahie	A point on the shore that forms the boundary between Paomai and Mahana Ahupuaa	The firewood point (a place where debris washes up)
Panau/Pānau	Site of two houses on coast of Paomai	To move up and down (as the sea)

Place Name/Alternative Spelling	Characteristic, Feature	Meaning
Pohakuloa/Pōhakuloa	A sandy hill on the boundary between Paomai and Kaa Ahupuaa. Kapuniai's house was situated along gulch above here	The long stone
Pohoula/Pohoʻula	Situated near boundary between Paomai and Mahana Ahupuaa. "At its foot was the general burying ground for this part of Lanai in ancient times"	Red hollow or depression
Puu Kauwela/Puʻu Kauwela	A hill along the boundary between Paomai and Mahana Ahupuaa	Summer hill; Hill of the hot season.

Lānaʻi Testimonies and Survey Notes (1876)

In the period of 1876–1877, William D. Alexander, Surveyor General; M. D. Monsarrat, Assistant Surveyor; J. F. Brown; and party surveyed the entire island of Lānaʻi, traveling with elder native tenants. Alexander's field book, covering late March and early April 1876, contains his notes, compiled through interviews and fieldwork.[85] The book provides readers of the present day with glimpses into the cultural and natural landscape of Lānaʻi, and identifies several elder informants on Lānaʻi. Of particular importance is documentation of traditional sites such as heiau, areas of residence, burial sites, shrines, former ʻuaʻu (Hawaiian petrel) nesting grounds, and trails. In the record are also found a number of place names and descriptions of features not mentioned in other documentary sources.

Unfortunately, few of the narratives recorded in Alexander's field book made it into the formal proceedings and documents of certification authorized by the Boundary Commission. The court proceedings focused on metes and bounds, relying on the authenticity and accuracy of the documentation provided by the surveyors. Thus, the notes copied verbatim from the field book provide us with the background as to how the boundaries were determined, and they identify significant cultural resources of Lānaʻi.

> March 30, ʻ76
>
> Kapuniai states that at a place called Ka Lae o Kawahie, the boundary between Mahana & Paomai begins at a row of large rocks & runs directly inland. He also state that Ioba Kahema once surveyed the land of Mahana.
>
> Names of hamlets in Paomai:
> Panau, two wooden houses 2 miles E of Awalua
> Honowai ½ mile E of Awalua
> Kanaele 1 ½ mile E of Awalua
> Honuaula 3 miles E of Awalua
> Kahue 3 miles E of Awalua

[85] Register Book No. 153, copied from the collection of the State Survey Division.

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Ka Lae o Kawahie 4 miles E of Awalua

Bearings with Prismatic Compass:
From Awalua Village
Leahi not visible today
Mauna Loa on Molokai 320°
Round Hill on Molokai 296 ½ °
Kalae on Molokai 348 ½ °

March 31st

Old Kamai states that the boundary between Paomai & Kaa begins at a heiau called Hale o Lono about a mile West of Awalua. He confirms the statement that Ioba surveyed Paomai for Kanaina in the reign of K. IV. His father Lauaole was Ioba's guide. They assert that Paomai takes the strip of sand beach about 200 ft. wide from Hale o Lono to Pohaku Loa, & the adjacent fishery. Pohaku Loa is about a mile East of Awalua, a large rock & row of rocks. From Ka Lae o Kawahie, the boundary between Mahana & Paomai, runs tolerably straight inland a little east of the Paomai gulch, coinciding with a road most of the way. It turns a little to the west around the head of the Paomai gulch & along a narrow ridge between the head of Paomai gulch & that branch of Maunalei which belongs to Mahana.

At a point where the latter gulch divides into two branches called "Ka Pohaku Ahi," the boundary crosses and runs up to the top of the mountain, till it meets Kalulu. The other side of Mahana is bounded by the sea and by the Maunalei line which was surveyed by Mayor & settled by Judge Robertson.

The boundary between Paomai and Kaa, after following the top of the sand beach from Hale o Lono eastward to Pohaku Loa turns inland and runs straight for a small gulch near Kapuniai's house.

From Kapuniai's house, the line follows the foot of a line of bluffs, sending off a branch to the sea on the west between Kaa and Kamoku. It grows narrower towards the south and forms a narrow strip between Kamoku and Mahana as mentioned before. One of its landmarks is an ahupuaa [stone marker where tribute was paid in ancient times] near Koele, at foot of the encircling ridge near the mouth of a small ravine.

April 1.
Appr. Elevation of the water shed near the road from Maunalei to Kamoku = 1750 ft.
Appr. Elevation of the Koele station 1550 ft.

Kealakaa states that the boundary line between Kaa and Paomai after leaving Kapuniai's house, strikes the edge of the encircling line of bluffs about 500 ft. N.W. of Keoni's house on the crest of the water shed, at a place called Kakaalani. Thence the line descends a transverse ridge to S.W., marked by two or three large rocks, to the central plain. Thence it runs straight Southwesterly to the head of a ravine which separates Kaa from Kamoku. According to ancient tradition the bottom of this

ravine to the sea belonged to Paomai. A stone was pointed out on a low ridge at about the middle of this line, as one of Ioba's marks.

A commanding hill N.W. of the central plain, which was selected for a primary trig. station, is called Kanepu [Kanepuu].

The boundary between Paomai & Kamoku begins at the west, at the head of the ravine…

… Paomai Boundary which separates Kaa from Kamoku. In Makalena's [survey], he commenced here at a house site. The line then runs S.E. nearly straight to the ahupuaa before mentioned near Koele. One of Makalena's stations was a house site on a rising ground about half way, where there is a group, or clump of rocks.

The name of the square red bluff in the encircling ridge, a little S. of Kakaalani, is Pohoula. At its foot was the general burying ground for this part of Lanai in ancient times.

From the above mentioned ahupuaa, the boundary between Paomai & Kamoku runs up a small ravine to the top of the dividing ridge. It then follows the edge of the pali round to the main branch of the Mahana gulch & thence returns to the northward along the west side of that gulch to Pohaku ahi mentioned above.[86]

The following is an entry from Alexander's field book which he copied from an old survey by Ed Mayor dated July 25, 1859.

Local Names.
On Paomai boundary [circle with dot] is at a place called "Piliamoo."
Dividing ridge in Maunalei Valley is called "Koloiki."
Paomai [circle with dot] 3 near white house is "Kealakole."
[circle with dot] NE at Kamaainas "Puu Kauwela."
[circle with dot] on road "Halala."
Kaiholena.

The following is from notes of old surveys of the island of Lānaʻi by W. D. Alexander and M. D. Monsarrat.

Konohiki Land Titles

Ahupuaʻa	Owner	Title
Kaʻā	V. Kamamalu	Award 7713
Kaohai	M. Kekuaiwa	Award 7714
Maunalei	Fanny Young	Award 8519 B
Pālāwai	M. Kekauonohi	Award 11216
Keālia (Kapu)	J. Kaeo	Award 8520

[86] W. D. Alexander, "LANAI (Memo.)," Register Book No. 153, 1875–1876. Note: Pages 1–13 in this book contain memos and maps of land holdings at Nuʻuanu, Oʻahu. Lānaʻi notes begin at page 14. Alexander also uses macron accents on certain place and people names as indicated in the citations here.

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Govt. Lands
… Mahana ceded by Lunalilo for Commutation
Paomai omitted in the Mahele
Kamoku only in part, the ilis of Kaumalapau 1 & 2, and Kalama being mentioned in the Mahele book as Govt. lands.[87]

On January 18, 1889, W. D. Alexander wrote to L. A. Thurston and identified Paomaʻi as a Crown Land.

> Dear Sir – By some inadvertence I omitted the land of Paomai, Lanai, area 9079 acres, in the list of unassigned lands occupied by the Commissioners of Crown Lands.[88]

A notice was issued by the Boundary Commissioner regarding the boundaries of Paomaʻi. The notice is given below.

> Application having been made to me for the settlement of the boundaries of the land of "Paomai" on the Island of Lanai, all parties interested in said land or lands adjoining same are hereby notified that Thursday, Feby. 28, 1889, at 12 o'clock noon at the Court House in the town of Lāhaina, is the time and place set for hearing proofs of survey and any objections thereto.
>
> Sam'l F. Chillingworth.
> Commissioner of Boundaries Second Judicial Circuit.[89]

King Kalākaua declared Paomaʻi a Crown Land in 1890 in the following.

> AN ACT.
>
> To Declare Certain Lands to be Part of the Crown Lands and Royal Domain.
>
> Whereas, certain unassigned lands have hitherto and at all-time heretofore been held to be part of the Crown Lands and Royal Domain and as such were and are now in the possession of the Crown Land Commissioners; therefore,
>
> Be it Enacted by the King and Legislature of the Hawaiian Kingdom:
>
> Section 1. The Ahupuaa known under the following names and situated as hereinafter set forth, that is to say…
>
> 5. Kamoku, in the Island of Lanai;
> 6. Paoma-i in the island of Lanai…
>
> Are hereby declared to be a part of the Crown Lands and Royal Domain of the Hawaiian Kingdom and as such subject to the provision of the Act entitled "An Act to relieve the Royal Domain from encumbrances, and to render the same inalienable," approved the 3rd day of January, A.D. 1865; and the possession of

[87] W. D. Alexander and M. D. Monsarrat, "Notes of Old Surveys, Island of Lanai," H.T.S., Reg. No. 162, 1878, p. 3.

[88] Hawaiʻi State Archives, Interior Department Lands.

[89] "Boundary Commissioner's Notice!" *Hawaiian Gazette*, February 5, 1889, p. 5.

> said lands is hereby confirmed in accordance with the provisions of Sections 3 and 4 and 6 of said Act to the Crown Land Commissioners and successors in office…
>
> Approved this 14th day of November, A.D. 1890.
> KALAKAUA REX.[90]

Paomaʻi Ahupuaʻa Boundary Commission Survey, 1891

The following document sets out the official boundaries for Paomaʻi Ahupuaʻa determined by the Boundary Commission.

> Lāhaina, Maui, Feb. 28th, 1891.
>
> In the matter of the settlement of the Boundaries of the land of Paomai, Island of Lanai.
>
> Application made by Commissioner of Crown Lands, Curtis P. Iaukea.
>
> Mr. R. W. Meyer for Honorable C. R. Bishop, Mrs. B. P. Bishop and himself and Mr. M. D. Monsarrat for the Hawaiian Government respectively, and having filed their authorization to act in the premises, the following were agreed to be the Boundaries of this land, and in accordance with the agreement and their [sic] being no parties of interest, it is decreed that the Boundaries of the said land of Paomai, Island of Lanai, are as follows:
>
> Commencing at a cross cut in a rock at a rocky point called Lae Wahie the boundary runs:
>
> 1. S 22° 47' W true 4482 feet along Mahana to a cross cut on a stone.
> 2. S 9° 04' E true 5279 feet along Mahana to a triangle cut on a stone.
> 3. S 27° 24' E true 3830 feet along Mahana to a cross cut on a stone at a place called Halala.
> 4. Thence along Mahana following up the East edge of the gulch, to a red wood post which bears S 12° 51' E true 5995 feet from last point (at a place called Puu Kauwela). Thence:
> 5. Still along Mahana up edge of gulch to a point on East bank. The traverse from the red wood, post being as follows:
> 6. S 15° 01' W true 1076 feet.
> 7. S 37° 05' E true 2023 feet
> 8. S 73° 29' E true 1928 feet.
> 9. S 59° 11' E true 1578 feet.
> 10. S 14° 03' East true 1438 feet to above mentioned point.
> 11. S 37° 17' W true 1447 feet along Mahana to a red wood post at head of Paomai gulch and on edge of a branch of the Maunalei gulch.
> 12. S 28° 53' E true 3143 feet along Mahana to three stones set in a triangle on South edge of branch of Maunalei gulch.

[90] "Lanai Crown Lands," *Hawaiian Gazette*, December 16, 1890, p. 7.

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13. S 49° 14’ E true 8425 feet along Mahana to a red wood post on ridge that comes down from the central mountain range (said post being the North edge of Valley that contains the water hole of Kaiholena).
14. N 62° 37’ W true 6742.5 feet along Kamoku down above mentioned ridge and across valley into a small ridge and down said ridge to a red wood post at end of same.
15. S 84° 37’ W true 1316.8 feet along Kamoku to a cross cut on a stone.
16. S 74° 08’ W true 6258 feet along Kamoku passing to the North of a couple of Hala clumps to two triangular pits at an old house site.
17. S 74° 51’ W true 5045 feet along Kamoku to a cross cut on a stone at head of gulch.
18. N 86° 06’ W true 1368 feet along Kamoku down South side of gulch.
19. S 83° 45’ W true 1455 feet along Kamoku to a cross cut in a stone.
20. S 74° 09’ W true 920 feet along Kamoku.
21. N 55° 12’ W true 898 feet along Kamoku across gulch to a red wood post a little West of a cactus clump.
22. N 67° 28’ E true 1475 feet along Kaa to a rock marked thus T.
23. N 56° 34’ E true 1574 feet along Kaa to a red wood post set in middle of triangular [sic] formed by three stones.
24. N 63° 22’ E true 10649 feet along Kaa to a hugh [huge] rock marked thus [diagram].
25. N 57° 20’ W true 1622 feet along Kaa to a red wood post at a place called Kakalani [Kakaalani] from which point Puu Manu Signal Station bears S 36° 57’ E true.
26. N 59° 42’ W true 13846 feet along bed of shallow ravine to a rock marked thus.
27. N 54° 19’ W true 3449 feet along Kaa to red wood post on small hill from which point Signal of hill Kanepuu bears S 54° 38’ W true.
28. N 33° 59’ W true 2310 feet along Kaa to rock marked thus X.
29. N 17° 12’ W true 2334 feet along Kaa to center of triangle formed by three stones set in the ground.
30. N 11° 57’ W true 14243 feet along Kaa to a red wood post set in a sandy hill near place called Pohakuloa.
31. N 86° 18’ W true 4574 feet along Kaa to corner of enclosure at Kamai’s house.
32. S 77° 18’ W true 1776 feet along Kaa;
33. N 89° 09’ W true 4737 feet along Kaa to place called Hale o Lono.
34. N 83° 47’ E true 10966 feet along sea shore.
35. S 76° 21’ E true 8288 feet along sea shore.
36. S 88° 15’ E true 8889 feet along sea shore to point of Commencement.

Area 9078.97 Acres…

Saml. L. Chillingworth

Commissioner of Boundaries II J. C.[91]

2.8.3 Native Traditions and Historical Accounts

A review of Hawaiian-language newspapers revealed a few passing references to Paoma‘i and neighboring lands. The narratives include poetic descriptions of the land, resources, residents, and events in history. A few of the accounts also describe unfortunate events in which murders occurred in 1871 and 1892. Selected narratives follow below.

Travel through Paoma‘i in 1869

The first narrative offers a description of the lands from Polihua to Honua‘ula. A party had traveled through these areas in 1869.

> [Polihua] — Kaulana keia wahi no ke nee o ka honu i uka, a hanau iloko o ke one a me ka pohuehue, aole nae hoi i hiki i ka wa hanau o ka honu, ina paha e hanau i na la hoi ua ike makou.
>
> He wahi one palahalaha maikai keia, he pohopoho, a he loko kai kekahi; a wahi a ka lohe a kamaaina, aia ka ka ike ia Polihua a lei i ka manewanewa, o ko makou lele like iho la no hoi ia u-u e like me ka u-u ana i ka maile; i kau mai hoi ka hana i ka a-i, onaona launa ole mai i ke ala o ka hala o Panaewa, he ano like me ka rose ke ala, a o ka hao mai ia no ia kapalili ana ma kaha one.
>
> He nani hemolele maikai ia hele ana mai, he pae wale no ia holona mai a kaa moku i ka pa a ka Maaa mahope, pono pono na peaheke, a hiki ana i Awalua. He nani okoa no hoi ia, he awa ku moku o kai, he mau hale maikai no e ku ana ma kapakai, i laila makou i inu iho ai i ka wai opuni o Puako i Hawaii, me ka haawi aku i ke aloha no lakou, ulele mai no a hehi ana ia Paomai a me Awili.
>
> He mau aina nui keia mai kahakai a kuahiwi, kiola ae la makou ia mau aina i hope, holo aku no a hiki i Honuaula.
>
> I laila ke keiki a ke aloha i noho ai o Mr. Palau, hookipa kela ia makou. He alihikaua oia no ua hana pono ma ke uhane ma ia Kihapai o ka Haku, a he alihikaua no hoi e alakaia ana i na wahi pulapula opio o koe malaila; a pau ka paina ana me ne poke hee, o ka hele ae la ia a liki toil [?] kapaia ka wahi a ka haole.[92]

The translation of the above narrative follows.

> [Polihua] — This place is famous for the movement of the turtles to the inland areas, and for their birthing in the sand and pohuehue. We were not there at the time of the birthing of the turtles, perhaps had we been there in those days we would have seen it.
>
> This place is a fine, wide beach, with hallows and some salt ponds; and it is said by the natives, “It is known that you have seen Polihua, when you wear a lei of

[91] “Paomai Ahupuaa, Island of Lanai,” Boundary Commission, Volume No. 2, p. 35–37, No. 81, Land of Paomai, Island of Lanai.

[92] “Naue ana e ike i ka mokupuni o Kaululaau,” *Nupepa Kuokoa*, Ianuari 9, 1869, aoao 4.

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manewanewa." So we quickly went and stripped it, just like how you strip the maile. When we finished our work, we placed it upon our necks. Its fragrance is second to none, like the fragrant pandanus of Panaewa, also like the fragrance of a rose. Its fragrance is born across the sea beach.

It is beautiful beyond compare to travel here, and as we went on we felt the Maaa blowing behind us, causing the sails to billow, and we reached Awalua. There is a different beauty here, it is the boat harbor, and there are many good houses here along the shore. It is there that we drank the brackish water, which causes one's stomach to enlarge, as at Puako on Hawaii. Offering our aloha for the people there, we departed for Paomai and Awili.

These are large lands, from shore to mountain. Leaving these lands behind, we then went on to arrive at Honuaula. There, the beloved child, Mr. Palau resides, and he welcomed us. He is a leader of the good work in the field of the Lord, and a leader of the young people who still remain there. When we finished our meal of raw octopus, we then continued on the way in toil, as the foreigner says…

The visitors then gave the left over water for the kind hospitality of Mr. Palau, and the other households, on the calm of the shore. Then mounting the horses to travel on.

Murder at Paoma'i

The excerpt below originates from a newspaper article which describes the unfortunate occurrence of a murder at Paoma'i.

> We have received, at a late hour this morning, a letter from Lanai, which points pretty plainly to the fact that in March, 1870, a native named Palau[93] was murdered at Paomai, on that island. An inquest was recently held on certain remains found, resulting in a verdict that they were those of Palau, and that be came to his death by violence.[94]

The following editorial, written on November 2, 1871, expands and speculates on the circumstances of Palau's murder.

> Mr. Editor:—This quiet island has been lately the scene of a little excitement, and is trying to have its share in the carnival of disaster and crime now pervading the world. In March, 1870, a native, I. W. Palau, residing on Paomai, west end of the island, was suddenly missing. Some said he had perished whilst fishing and was not much sought for. After a while there were rumors of foul play, and suspicion attached to a certain family, the near neighbors of the lost one. On the 3d October last, the remains of I. W. Palau were found in a small cave, or hole, in a rocky ravine, near his late abode, and were immediately recognized by the clothing and other objects known to have belonged to Palau. It was plain to be seen that he had

[93] Palau is the gentleman referenced in the previous narrative as the host at Paoma'i of the party that visited the island in 1869.

[94] "Murder on Lanai," *Pacific Commercial Advertiser*, November 4, 1871, p. 3.

> been done to death maliciously. Several bones were broken after the fashion of ancient Hawaiian bone-breakers, and heavy stones lay upon the bones in the cave.
>
> An inquest was held upon the spot where the bones were found, Justice Solomona Kahoohalahala acting as coroner, and after a careful investigation and examination of witnesses during three days, the jury unanimously agreed upon a verdict that I. W. Palau had come to his death by blows from some heavy instrument in the hands of some person unknown to the jury. But the suspicion of every native on the island fastens on certain parties, a father and son. The wife of Palau and another witness confessed that they, with these suspected parties, were participants in a large theft of sheep from a foreigner, Mr. Gibson. They stole several hundreds, burying numbers which were branded, and which they could not dispose of. Palau was acquainted with the theft and threatened exposure. He was a stranger on the island, reputed to be a steady church-goer and honest man, and was aggrieved at the villainies of many of the islanders. This is the fourth death on this island in seven years, accompanied with suspicions of foul play. A jury, a few years ago, decided that a woman, Mahaoe, had been stabbed to death. Some reward ought to be offered by the Government in order to induce the natives to testify. There are many, no doubt, who know the guilty parties.[95]

A Sightseeing Journey in 1872

The narrative below was written by S. A. Kanakeawe from Waialua, Molokai on September 9, 1872 and recounts a sightseeing journey on Lāna'i.

> E ka Nupepa Kuokoa e;
>
> Aloha oe:— Would you and your associates grant space for this explanation of some of the famous places of Lanai so that our many friends from Hawaii to Kauai might know of them, should they come to visit Lanai. [Having landed at Awalua] They are thus:
>
> From Awalua, Polihua is west, and from Awalua, Keahiakawelo is south. West of there is Nalehua o Kapoai and the lehua grove of Malulani. Then beginning from Keahiakawelo going to the southeast, you arrive next at Kanepuu. To the east of Kanepuu is Hoopulapulamoa, then the kula (open lands) of Kaa. From here, one may then see to Kihamanienie, and the valley cliffs of Kaiholena. Traveling from Hoopulapulamoa on the kula of Kaa, there are two pili thatched houses along the side of the trail. That is Kukuikahi, and from there you go straight to the residence of Holokahiki. You may then ask Holokahiki about the trail that ascends to Kaiholena, where the fresh water spring of those who resided at Palawai, Kealii and Pulehuloa, Kihamanienie, Kiekie, Nininiwai. That is the water for bathing and where their horses are watered…
>
> [Departing from Maunalei Valley, traveling along the coast of Mahana] Then you come to Kahokunui, where there are two houses. Then comes the kula of Kaiolohia. At the time of this journey, there are not many houses here. At

[95] "Letter from Lanai - Supposed Murder," *Pacific Commercial Advertiser*, November 11, 1871, p. 3.

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Kahaulehale there is one house and at Kahue, there are two houses. At Honuaula there are six houses, and at Paomai there is one house. Now you have encircled Lanai. So that is the news of the country folk here, for those young people in the town of Honolulu who are interested in the various places of these 12 islands.

This is a good land, the natives help the visitors who pass by on horse. So we give our warm aloha to Kamai, Hao, Palau, Iosepa and Naeole for their help offered to us, with the horses, and to those who welcomed us, Holokahiki, Lapaki, Ohua and Kekawewe. I now return to Molokai to rest at Kawela. Aloha to you.[96]

Kanikau for Maea

The following is a kanikau, which laments a loved one who has passed on. Some places of Lāna‘i are mentioned, which suggests the departed one had resided at or frequented these places.

Ua hala kuu lani, kuu mea minamina, he wahine i ke ala hoi ole mai… Ua make o Maea i ka la 12 o Novemaba, 1880 ma Kuloloia, Honolulu, Oahu… Aloha ino…

. . . He kanikau he aloha keia nou e Maea
Kuu kupuna wahine mai ka hono ona moku
Mai ka makani hulilua o ka aina
E wehe ana i ka lau o ka ulu…
Kuu kupuna wahine i ke kaha o Paomai
E nana ana i ke one o Polihua
E kahiko ana i na lehua o Malulani
Mai ka makani Kehau o Kihamanienie
Makani popokapa o Kaiholena
Hoomaha aku i kahi wai ono Pulehuloa
Ola ke kini kiai wai o Kaa-e.
Auwe kuu kupuna wahine-e.

Kuakeaweniho.[97]

The translation of the kanikau is below.

My heavenly one has passed on, my regret is that this woman has departed upon the trail from which there is no return. Maea died on the 12th day of November 1880 at Kuloloia, Honolulu, Oahu… Grief…

This is a lamentation of love for you, Maea
My grandmother from the bays of the islands
From the variable winds of the land
That open up the leave of the breadfruit…
My grandmother there on the shore of Paomai
From where one may look to the sands of Polihua

[96] S. A. Kanakeawe, “Makaikai ia Lanai (A Siteseeing Journey on Lanai),” *Nupepa Kuokoa*, Kepakemapa 21, 1872, aoao 2. Translated by Maly.

[97] “He Kanikau Aloha no Maea,” *Ko Hawaii Pae Aina*, Kekemapa 4, 1880, aoao 4.

Adorned in the lehua blossoms of Malulani
From the Kehau wind of Kihamanienie
The wind that bundles up the kapa of Kaiholena
One found rest at the place of sweet water of Pulehuloa
The natives of Kaa have life in guarding the water
Alas my grandmother-

Kuekeaweniho.[98]

Triple Murder at Awalua in 1892

The following narrative describes some gruesome events that occurred on Lāna‘i in 1892. The crimes described occurred at Awalua.

A much worse tragedy was enacted on the island of Lanai this month than the first dark and vague reports of the uncanny conduct of a family there made evident. By the Kinau on Sunday morning there arrived in Honolulu two officers in charge of eleven persons committed to jail for trial on the charge of murder. There is a twelfth person who has been accused of murder, in connection with the same blood-freezing horror, left lying in jail at Lāhaina charged with participation in the crimes, while being himself one of the sufferers from the brief but frightful reign of fanaticism at the hamlet of Awalua.

The prisoners comprise five women—Puulolo (the principal), Kanoe, Kanoena, Nawai and Kahikina, and six men—Kala, Kakaio, Kealakaa, Keola, Keliikuewa and Kealakaaliilii. Puulolo is charged with three murders, one of them wholly her own cruel work. The others are charged with participation in one or both of two of the murders with which the principal is charged. According to the commitments, the first murder was the killing of Kalaliilii, a nephew of Puulolo’s and a child of only six years, in which the murderous kahuna was assisted by nine of the family group, on the night of February 11. Puulolo is charged singly with the murder of Puni, whom she beat to death with a club, the night of February 12. The same night Kaholokai was seized by the assistants of the priestess, while she beat him with a club into unconsciousness. She is supposed to have finished him after the retirement of the others. Early in the morning the hut was burned down, and the fanatics threw Kaholokai’s body into the flames. Paa, who is in jail with his wife at Lāhaina, was one of the first ones to be attacked for his skepticism of the powers of the priestess. He is a brother of Puulolo and his treatment gives some idea of the intensity of her malignant frenzy. By her orders he was held down, while the devilish wench roasted his face, arms, and body with a burning torch composed of rags dipped in grease. The foregoing is a summary of the crimes for which the prisoners await trial. Below will be found a history of the awful tragedy, in which the motives already hinted at are made more clear.

The following facts are gathered from the report of Deputy Sheriff Sam. F. Chillingworth, Wailuku, to Marshal Wilson:

[98] Translated by Maly.

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On Monday the 15th inst. A boat arrived at Lāhaina from Lanai, bringing information of several deaths at Awalua, Lanai. A constable from Lanai and two witnesses came by the boat, on hearing whose statements Captain of Police Hose rode to Olowalu, and thence? telephoned an account of the affair to Wailuku.

Sheriff T. W. Everett instructed Deputy Sheriff Makalua of Lāhaina and Capt. Hose at once to Lanai, make a thorough investigation, and report to the sheriff at Wailuku with all possible dispatch. Deputy Makalua having earache confined himself to holding a consultation with the Police Justice and finally swearing out a warrant for twelve persons named by a woman Kafue, who had come from Lanai with the officer. Capt. Hose taking some officers with him went in a boat to Lanai, where, employing horses for himself and three officers, he proceeded to Awalua. Arriving there he arrested the twelve persons named in the warrant, and brought them together with a number of witnesses to Lāhaina on Wednesday.

Capt. Hose after lodging his prisoners in jail rode to Wailuku and reported his action to Sheriff Everett. The Sheriff directed that Mr. Chillingworth should go to Lāhaina and attend to the case, and in pursuance of his instructions the Wailuku Deputy arrived at Lāhaina early Friday morning the 19th inst. He found that the prisoners (with the exception of Paa and his wife Awili) had been arraigned Thursday morning and charged with murder, and their cases postponed, awaiting the return of Hose from Wailuku, until Friday morning.

On Mr. Chillingworth's arrival the prisoners were again remanded until Saturday morning. In the meantime the Deputy-Sheriff worked up the case, and that day presented charges as follows:

Puulolo (w.), for the murder of Puni (w.) on Friday, February 12, 1892.

Kala (k.), Kakaio, Kealakaa, Keola, Keliikuewa, Kanoe, Kanoena, Nawai,Kahikina and Puulolo (ten in all), for the murder of Kalaliilii on February 11, 1892. Puulolo, (w.), Kakaio, Kala, Keola and Kealakaaliilii (five), for the murder of Kaholokai, on February 12, 1892.

Defendants had a local lawyer for counsel. They pleaded not guilty, waived examination and were committed for trial at next June term, Circuit Court at Wailuku.

Paa (k.) and Awili his wife are in the jail at Lāhaina. Paa was the first one abused, having been terribly burned about the face and upper portion of the body, with a torch in the hands of Puulolo, Paa being held by the others during the burning. He is under the treatment of Dr. Davison and, although his injuries are shocking, he will probably recover. It is quite evident, in the opinion of Deputy-Sheriff Chillingworth, that Paa could not have had anything to do with the subsequent terrible occurrences. His wife would testify as to what was done after his torturing. Mr. Chillingworth gives the following connected narrative of the case, as gathered from his investigations:

"All of the defendants now in jail and the murdered persons resided at Awalua, a small landing place on Lanai, there being at that place only four houses-two

storehouses belonging to Mr. Hayselden and two other houses occupied by the parties to the tragedy.

"Puulolo went to Honolulu and returned from there about two months ago, and on her return claimed to be possessed of supernatural power, especially in the curing of diseases, which she claimed were all the results of evil spirits that entered into the bodies of people and destroyed them. After her arrival back from Honolulu, Puulolo had opportunity to show her skill by the treatment of two young people (one of whom was the boy Kaia whom she since beat to death). These patients she appeared to cure by necromancy, and her power was at once acknowledged by the rest of the villagers (who by the way were all related to each other either by blood ties or marriage).

"Probably emboldened by her success and power Puulolo went from one extravagance to another. She claimed that at intervals she had a spirit or god that entered her and gave her the power to detect the evil spirits that had entered other people, and she played the role of kahuna with sovereign power. In fact, as some of the unfortunate, misguided people say, she was their 'Queen and God.'

"The different murders were committed under her instructions, that a devil needed to be driven out of the person attacked. Any attempted questioning was promptly punished by her orders to the people around. They were afraid of her and afraid of each other, none knowing whose turn would come next, and each and all afraid to refuse the execution of her orders, fearing that his fellows would be ordered to inflict summary punishment to drive out the devil that had prompted the disobedience.

"So the dismal details of the crime, fanaticism, and superstition followed rapidly on one another through the days and nights of the week of the murders, until, encouraged by the presence of some outsiders, some of her deluded followers turned on her and tied her and her husband up, to be so found by the officers on their arrival with the warrants of arrest.

"Last night I went to the jail and had Puulolo brought to me for examination. She impresses me as a more than clever schemer with a cruel nature. She unhesitatingly admitted the deaths of the three persons and the burning of Paa, but denied altogether any knowledge of the cause of death of the woman Puni or of the boy Kala. She says that Kaholokai (k.) must have been killed by the burning of the house. She admits that she was present at the other two deaths, but knows of no cause. I sat with the woman for over an hour, questioning her closely as to the facts of the case, but could not either confuse her or gain any admissions from her.

"So far as I can detect, there is not the slightest trace of insanity of my examination with the statements of the others as to her instructing the burning of the house, crimes committed, I believe her to be perfectly sane, but given over entirely to her love of power and the indulgence of a terribly cruel nature." Mr. Chillingworth asks for instructions as to the exhumation of the bodies for the purposes of evidence. Dr. Davison having advised him that decomposition would have destroyed traces of violence in tissues and flesh, and fractures of bone could

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> be discovered later as well as now. The deputy-Sheriff gives high praise to Capt. Hose, for the energy he displayed in arresting the accused and securing witnesses.[99]

Information on the verdicts and sentencing in the murder case was published in the *Pacific Commercial Advertiser* on June 16, 1892.

> The Kinau arrived yesterday and brought news of the conclusion of the famous Lanai murder case, full particulars of which were published at the time. The evidence of the witnesses placed on the stand fully authenticated the accounts previously published and showed that the murders committed were due to what must be regarded as an outbreak of cruelty, animal ferocity, and degraded superstition all combined. A nol. pros. was entered as to five of the defendants, and a verdict of murder in the second degree found by the jury in the case of five others, viz. Pulolo the kahuna and four of the men implicated with her. Kala, the father of the murdered child, was sentenced to thirty years' imprisonment and Keola Kakaia and Keliikuewa to twenty years' each. In the case of Pulolo, the principal, sentence was reserved, owing to a discrepancy between English and Hawaiian versions, but it will be for life. The cause of the difficulty is the use of the word "term" in English, which led to some doubt in the mind of the court whether a simple sentence for life would be sufficient, or whether a term of years would have to be fixed.

Despite the life sentence, the murderer Puulolo regained her freedom in 1914.

> With a stroke of the pen Governor Pinkham lopped off forty-eight years, the unserved prison sentence of Puulolo, the Kahuna Wahine of Lanai, yesterday. The woman, convicted of a triple murder in 1892 and sentenced to seventy years in prison, had been in Oahu Prison a little over twenty-two years. She was about thirty-eight years old when the prison door closed on her, and now at the age of sixty, old, decrepit and alone, Puulolo has regained freedom, for the Governor yesterday granted her a full pardon.
>
> Puulolo was known on the island of Lanai as a kahuna - sorceress - and it is related that she once told a woman whom she hated, that she would be dead within twenty-four hours. Puulolo's prophecy came true, the woman dying twelve hours earlier than the limit given her.
>
> Pulolo Killed Three
> The Kahuna wahine fell fatally in love with her brother-in-law. She killed her own sister, her nephew, and then fearing that her brother-in-law would give her away, killed him also. With some of her "vassals" she placed the bodies in the house and burned the house and bodies to a cinder.[100]

[99] "Revolting Tragedy! Three Murders by Fanatics on Lanai. A Fourth Victim Shockingly Tortured by Fire. The Work of a Cruel Female Kahuna. Puulolo and Ten Accomplices Under Commitment in Oahu Jail for Murder," *Daily Bulletin*, February 22, 1892, p. 3.

[100] "Wahine Kahuna Now Freed From Prison As Yuletide Gift. Puulolo, Sorceress of Lanai, Convicted of trial Murder, Pardoned by Governor. She was Notorious for Her Misdeeds. Executive Clemency Extended to Fourteen Inmates of Oahu Prison On Christmas Eve," *Hawaiian Gazette*, December 25, 1914, p. 3.

Touring the Bays of Pi'ilani in 1917

In an account published in 1917, Steven Desha, Sr. describes a sightseeing tour to the bays of Pi'ilani.

> He mau makahiki i ke ola ana o ka mea e kakau nei keia huakai i hoohala ai ma keai Mokupuni o Kaululaau i na la opio, a ia manawa he aneane eono hale kula o keia mokupuni, oia hoi he hookahi hale kula ma Awalua, he hookahi ma Paomai, ka Home o ko'u Ohana i noho ai, a he hookahi no hoi i Maunalei, he hookahi no hoi i kahi kokoke i Kahalepalaoa, a he hookahi i uka o Kihamaninia, a he hookahi no hoi i Palawai. A ina la hoike nui o ka makahiki, e hui ana kela mau kula ma Kahalepalaoa Luakini, a malaila e hoike ia ai na kula like ole, a i kekahi makahiki hoi ma ka Luakini iuka o Kihamaninia e hoike ai, a i maluna o ka 250 mau haumana o keia mau kula e hoike ia ai, a he la laukanaka maoli no ia o ua Mokupuni nei o Kaululaau. I keia ike hou ana aku nei hou ua nele na wahi i noho ia e na kanaka i ke kanaka ole, a he mehameha wale ka aina ma na wahi lehulehu…[101]

A translation of Desha's account is below

> There were some years past in the young life of the writer of this journey to the Island of Kaululā'au, a time when there were six school houses on this island. There was one at Awalua; one at Paoma'i, the place where my family resided; one at Maunalei; one close to Kahalepalaoa; one in the uplands at Kihamāniania; and one at Pālāwai. And on the days of the annual exhibition (of skills), the schools would all gather together at the Church of Kahalepalaoa, where the schools would exhibit their knowledge. Then the next year, they would gather at the Church in the uplands at Kihamāniania to exhibit their knowledge. There were more than 250 students in these schools who participated in the exhibitions. Indeed, those were days when there were many people living on the Island of Kaululā'au. Now, upon seeing it once again, those places have no people, it is without people. All about, the land is silent…[102]

[101] Steven Desha, Sr., "Ka Huakai i na Hono a Piilani," *Ka Hoku o Hawaii*, Okatoba 11, 1917, aoao 3.

[102] Translated by Maly.

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2.9 Summary of Historical Background

In the traditional mythology of the island, Lānaʻi was inhabited by ghosts that disturbed the lives of the few people brave enough to live there. The ghosts were eventually defeated by a prince from Maui named Kaululāʻau which allowed the island to be habitable and led its prosperity. The island of Lānaʻi also plays a role in some traditions describing the arrival of the gods and people in Hawaiʻi. The famed Kealaikahiki, "canoe man's path to Kahiki," reportedly starts at Kaunolū on Lānaʻi.The accounts of pre-contact life on Lānaʻi indicate Hawaiians primarily settled along the coast adjacent to water sources and fisheries and maintained cultivated gardens in the uplands.

Politically the island of Lānaʻi was under the rule of the Maui chiefs. This political attachment to Maui led to much of the population being killed by the invading forces of Kalaniʻopuʻu shortly before contact with the west. This event coupled with the introduction of foreign disease decimated the population, a trend that is supported by the missionary records. Following the Māhele and the introduction of foreigners and foreign interests to the island, changes in land use took place which forever changed the landscape of Lānaʻi.

Records indicate that the first of these introduced ungulates were brought to Lānaʻi around the 1830s, where a few native tenants, living under landed chiefs, managed the populations. Later, mormon elders brought livestock to Lānaʻi as a part of their effort to establish a mission in the uplands at Pālāwai. In 1862, Walter Murray Gibson took over the Mormon settlement, and focused the livestock efforts on herds of sheep and goats, of which nearly 100,000 roamed the island, almost uncontrolled by the 1890s. As a result, Lānaʻi suffered from rapid deforestation and a drying up of the island's water resources. This impacted every other aspect of life on Lānaʻi and was one of the contributing factors to the continual decline in the native population of the island.

During the early history of ranching on Lānaʻi, ranch headquarters were established in the Pālāwai Basin but in the mid-1870's they were moved to Kōʻele (Lanai Ranch) where they remained until the ranch was closed in 1951. From 1910 to 1951, Lānaʻi ranch operations focused on cattle and a steady decline in the population of other livestock. The steady transition to cattle grazing led to the eradication of tens of thousands of goats, sheep, and pigs—many driven over the cliffs of Kaʻāpahu in Kaʻā—in an effort to reduce impacts on the steadily decreasing pasturage.

In the early 1900's the lands of Lānaʻi were consolidated under Charles Gay. The island was bought and sold several times before being sold to the Hawaiian Pineapple Company, Limited in 1922. It was at this time that Lānaʻi City was laid out and Kaumalapaʻu Harbor was constructed allowing the island to become the biggest pineapple producer and plantation in the world. Pineapple remained the primary commercial focus of the island well into the 1990's when pineapple cultivation ceased.

Starting in the 1980's with the development of two resorts on the island, one at Mānele and one at Kōʻele, and following the end of commercial pineapple cultivation in the 1990's, the primary commercial focus of the island changed to resort tourism and tourist activities which continues to be its driving force today.

Previous Archaeological Studies

3.1 Previous AIS of Parcel 2 (Dye and Maly 2017b)

In 2017, T.S. Dye conducted an archaeological inventory survey (AIS) for a construction stockpiling and staging area at the Four Seasons Resort Lānaʻi at Kōʻele (Dye and Maly 2017b). The assessment consisted of a pedestrian survey of a 3.1-acre project area and the excavation of four backhoe trenches in a single transect across the property (Figure 21). Natural soil was documented in all of the trenches and they contained three similar and sterile strata (Figure 22). No historic properties, subsurface deposits, or cultural materials were encountered during the project.

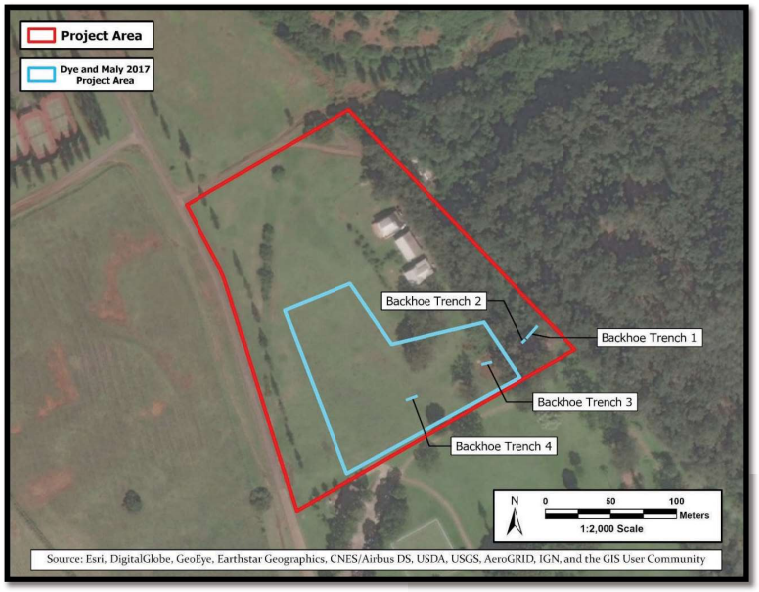

Figure 21. Previously Surveyed and Tested Portion of Parcel 2 with the Location of Backhoe Trenches (Dye and Maly 2017b)

REF-135

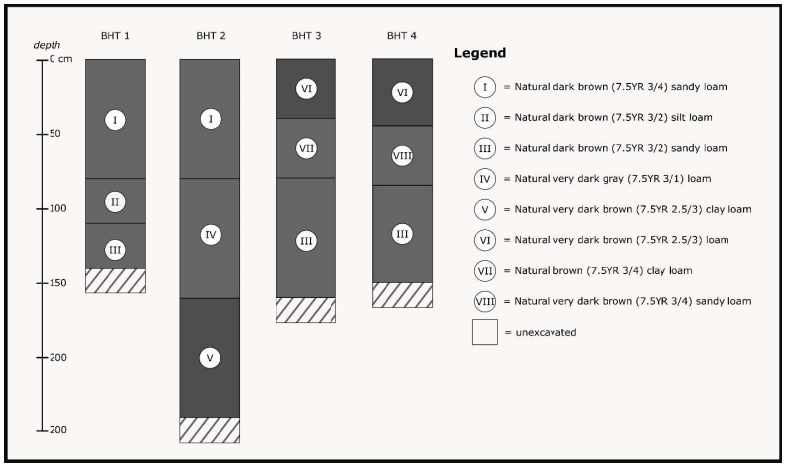

Figure 22. Stratigraphic Profiles and Soil Descriptions Obtained from Backhoe Trenches Excavated During the Previous AIS of Parcel 2 (Dye and Maly 2017b108)

3.2 Archaeological Studies in the Kōʻele Project District

Island-wide surveys of Lānaʻi that included the area were conducted during the early-20th century by Emory (1924) and later by Hommon (1974). Aside from these studies, archaeological investigations in the area began in the mid-1980's with development of the area for the Koele Hotel which would later become the Four Seasons Resort at Kōʻele. Archaeological studies conducted in the area have been in support of infrastructure and development projects associated with the Four Seasons Lodge at Kōʻele, the Kōʻele Golf Course, and various other recreational and residential properties.

A number of archaeological studies have been conducted in the area surrounding the Parcel 1 and 2 project area. Archaeological studies conducted in Kamoku Ahupuaʻa have been in support of proposed commercial, residential, and resort development. The studies focused on development projects in Lānaʻi City and Kōʻele, including the Four Seasons Lodge at Kōʻele, the Kōʻele Golf Course, and various other properties. Kamoku is the most developed ahupuaʻa of the island and contains Kaumālapaʻu Harbor, the Lānaʻi Airport, the Four Seasons Resort at Kōʻele. and the main residential area and population center of the island, Lānaʻi City. Due to this, it has undergone the most archaeological study of the thirteen ahupuaʻa of the island. Additional archaeological studies in Kamoku include investigations associated with the Lānaʻi Airport, the Lānaʻi Sanitary Landfill, and development areas around the airport, all of which are well outside the 1.5 mile vicinity of the project area.

Only a few studies have been conducted in Paomaʻi Ahupuaʻa. The studies have been in support of a proposed helistop pad, the Lānaʻi Community and Veterans cemeteries, and the Lānaʻi Pine

Sporting Clays shooting range. Other archaeological studies located within Paomaʻi Ahupuaʻa but well outside the 1.5 mile vicinity of the project area include investigations associated with proposed military helicopter pads and the Kaiolohia-Kahue coastal trail.

Figure 23 and Figure 24 show archaeological studies and sites that have been documented within a 1.5-mile radius of the two current survey areas. The studies are briefly discussed and listed in Table 9 below.

3.2.1 Emory 1924

The first archaeological survey of Lānaʻi Island was conducted by Kenneth Emory of the Bishop Museum in 1924 (Emory 1924 and Emory 1969). The study is an archaeological and ethnographic description of the island, which broadly summarizes the Hawaiian cultural traditions of Lānaʻi. It includes discussions on the traditional oral histories, place names, material culture, and archaeology of the island geographically organized around an inclusive gazetteer that is keyed to numbers on an accompanying map. It should be noted that that the numbers on Emory's map refer to places of cultural interest but not necessarily places of archaeological interest. The survey primarily documented the larger archaeological sites of island, the most remarkable of which is the village of Kaunolū, located on the southwestern shore of the island. No sites were documented within the current project area.

The closest sites documented to the current project area during Kenneth Emory's island wide survey include a stone house terrace at Kanaʻenaʻe (SIHP #50-40-98-099) and an excavated terrace at Pulehua (SIHP #50-40-98-107) far to the south of the project area.

3.2.2 Statewide Inventory of Historic Sites, Hommon 1974

The next archaeological survey of the island of Lānaʻi was conducted five decades later during the statewide inventory of archaeological sites in 1974. The focus of the survey was the relocation and documentation of previously identified archaeological sites for inclusion in the new State Inventory of Historic Places system. It was during this time that State Inventory of Historic Places numbers were assigned. Since searching for new archaeological sites was not the focus of the survey, site identification was left for future studies.

The current Parcel 2 project area is within the Kōʻele District, SIHP #50-40-98-1004, an approximately 66.8-acre area in which the current Parcel 2 project area is located. The site is associated with the ranching era and commercial pineapple production, spanning from the 1870s-1951. Kōʻele District was originally described on the Hawaiʻi Register of Historic Places (HRHP) form as a "complex of buildings including two office structures, a church, and a house" (Wright 1974:1 Appendix C). The structures included a house once used as the Koele School House, the Ka Lokahi Oka Malamalama Hoomana Naʻauao O Hawaii Church, and 2 house/office structures. The site was assessed as having "moderate" value, "reserve" status, and was determined significant as the former location of the Lanai Ranch Headquarters and its association with the growth and development of Lānaʻi

Additional sites documented in Kamoku Ahupuaʻa during the Statewide Inventory of Historic Sites (Hommon 1974) were mostly house platforms located at the mouths of the gulches along the coast and were documented as an historic district known as the Kamoku Complex, SIHP #50-40-98-204. The Kamoku Complex is comprised of House Sites at Kaumālapaʻu, SIHP #50-40-98-098; Kamoku House Site, SIHP #50-40-98-106; Kalamanui Complex SIHP #50-40-98-103;

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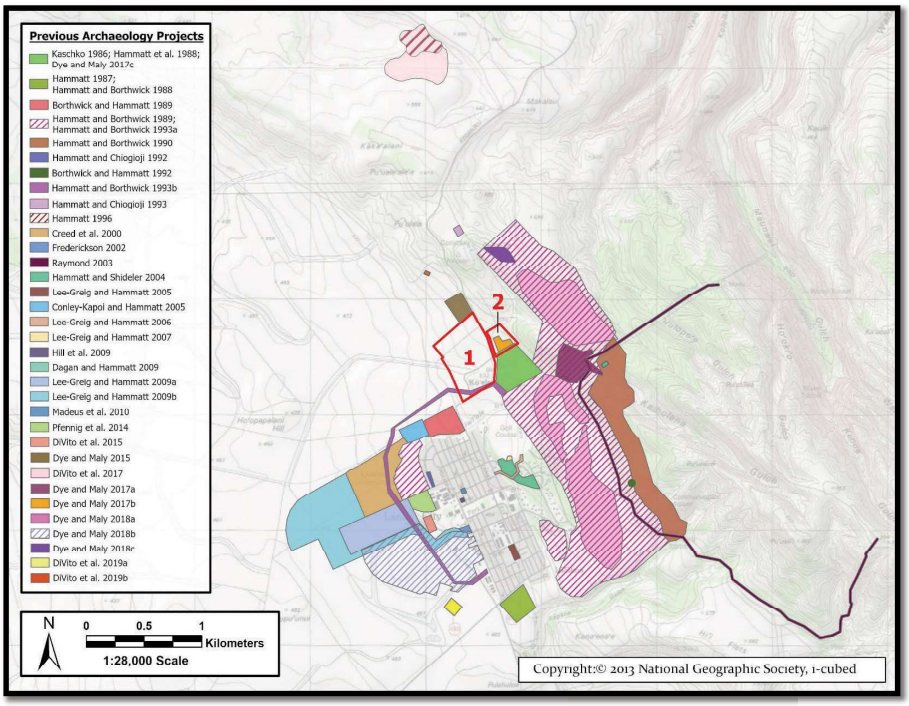

Figure 23. Portion of a 2013 Lānaʻi North USGS showing locations of previous archaeological studies within 1.5 miles of Parcels 1 and 2

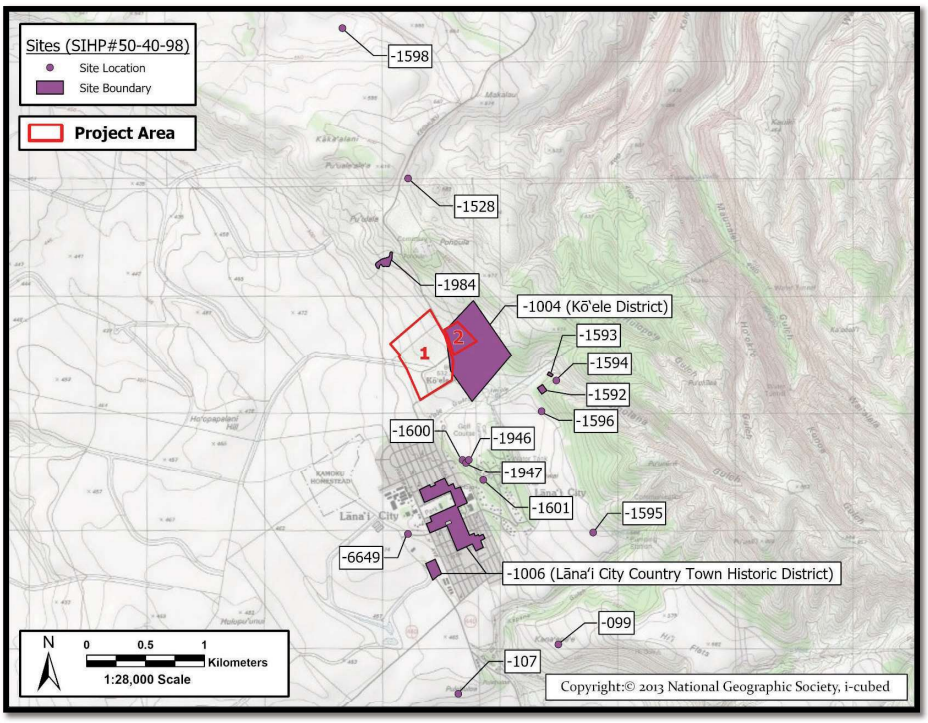

Figure 24. Portion of a 2013 Lānaʻi North USGS showing previously documented sites within 1.5 miles of Parcels 1 and 2

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Table 9. Archaeological studies inclusive of properties within 1.5 miles of Parcels 1 and 2

Author(s)	Type of Study	Location	Findings (SIHP #50-40-98)
Emory 1924, Emory 1969 (not shown on Figure 23)	Archaeological Investigation	Island-Wide	Closest sites include a stone house terrace at Kanaʻenaʻe (SIHP # -099) and an excavated terrace at Pulehua (SIHP # -107)
Hommon 1974 (not shown on Figure 23)	Inventory of Historic Sites	State-Wide	Recorded the Kōʻele District, SIHP # -1004
Wright 1974 (not shown on Figure 23)	Hawaiʻi Register of Historic Places	Koele Hotel (Four Seasons Lodge at Kōʻele)	Kōʻele District, SIHP # -1004, a complex of buildings including a house once used as the Koele School House, the Ka Lokahi Oka Malamalama Hoomana Naʻauao O Hawaii Church, and 2 house/office buildings
Kaschko 1986	Archaeological Reconnaissance and Sub-Surface Testing	Koele Hotel (Four Seasons Lodge at Kōʻele) **Adjacent to Project Area**	Kōʻele District, SIHP # -1004, including previously documented buildings (Features A-D, respectively) and 2 newly documented (Feature E: dry reservoir, and Feature F: house)
Hammatt 1987	Archaeological Reconnaissance	Lalakoa III Subdivison, Lānaʻi City, TMK: (2) 4-9-02, Lot 768	No sites recorded
Estioko-Griffin 1988, Pietrusewsky 1988	Letter Report, Osteological Analysis	Keomuku Road, TMK: (2) 4-9-002: por. 1	Recorded SIHP # -1528, a pre-contact subsurface cultural deposit and juvenile burial
Hammatt and Borthwick 1988	Archaeological Investigation (Surface Collection)	Lalakoa III Subdivison, Lānaʻi City, TMK: (2) 4-9-14, por. 1	Seventy-five secondarily deposited lithic artifacts were collected and analyzed, artifacts were attributed to an off-site source, no site number designated

Author(s)	Type of Study	Location	Findings (SIHP #50-40-98)
Hammatt et al. 1988	Archaeological Investigation (Excavation and Monitoring	Lanai Ranch Headquarters at Kōʻele (Four Seasons Lodge at Kōʻele) **Adjacent to Project Area**	Excavations encountered over1,000 historic- era artifacts ranging from the 1870's to the 1930's from two trash pits associated with the Kōʻele District (SIHP # -1004); Monitoring documented 9 historic features including a cesspool, charcoal and ash concentrations, an imu, a dry well, a possible fire pit, a cistern, and trash deposits
Borthwick and Hammatt 1989	Archaeological Reconnaissance	Waialua Multi-Family Housing, TMK: (2) 4-9-08:12, 13	A single basalt flake collected; no site number designated
Hammatt and Borthwick 1989	Archaeological Reconnaissance	Kōʻele Golf Course, Kōʻele Single-Family Housing, Queen's Multi-Family Housing, and Olopua Woods Subdivision	Six features documented at the Kōʻele Golf Course, Features 1-5 later became SIHP # -1592 (reservoir), SIHP # -1593 (reservoir), SIHP # -1594 (ditch system), SIHP # -1595 (historic debris associated with the Charles Gay Lālākoa homestead), and SIHP # -1596 (volcanic glass quarry)
Hammatt and Borthwick 1990	Archaeological Survey	Kōʻele Golf Course	A late-19th century ditch and charcoal scatter associated with the Kōʻele reservoir complex, no site number designated at that time but later subsumed within as previously- recorded SIHP # -1594 (ditch system)
Hammatt and Chiogioji 1992	Archaeological Investigation	Waialua Single Family Housing	No sites recorded
Borthwick and Hammatt 1992	Archaeological Investigation	Kōʻele Reservoir and Access Road	No sites recorded

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Author(s)	Type of Study	Location	Findings (SIHP #50-40-98)
Hammatt and Borthwick 1993a	Data Recovery	Kōʻele Golf Course	Data recovery of SIHP # -1592 (reservoir), SIHP # -1593 (reservoir), SIHP # -1594 (ditch system), SIHP # -1595 (historic debris associated with the Charles Gay Lālākoa homestead), and SIHP # -1596 (surface lithic scatter), no subsurface deposits or artifacts recorded
Hammatt and Borthwick 1993b	AIS	Pipeline Connecting Lānaʻi Treatment Plant and the Kōʻele Golf Course	No sites recorded
Hammatt and Chiogioji 1993	AIS	Lānaʻi Veterans Cemetery, TMK: (2) 4-9-002:001 por.	No sites recorded
Hammatt 1996	AIS	Lānaʻi Pine Sporting Clays Shooting Range, TMK: 4-9-002:001 por.	A traditional Hawaiian rectangular enclosure with associated agricultural features, SIHP # -1598 documented outside the project area
Creed et al. 2000	AIS	50-acre Hawaiian Home Lands Parcel, TMK: (2) 4-9-002	No sites recorded
Fredericksen 2002	AIS	Lānaʻi Police Station, TMK: (2) 4-9-14:1 por. and 11 por.	No sites recorded
Raymond 2003	Cultural Resources Investigation	Lānaʻi Summit Fence	No sites recorded
Hammatt and Shideler 2004, Lee-Greig and Hammatt 2007	AIS, Preservation Plan	Lower West Slope of Niniwai Hill, TMK: (2) 4-9-01: por. 2,	Documented four sites, SIHP # -1946 (Kihamāniania Church), SIHP # -1947 (the church's associated graveyard), SIHP # -1600 (a historic "altitude breaker"), and SIHP # -1601 (historic improved trail)

Author(s)	Type of Study	Location	Findings (SIHP #50-40-98)
Conley-Kapoi and Hammatt 2005	AIS, (AA Report)	7.673 acre-parcel, TMK: (2) 4-9-014:018	No sites recorded
Lee-Greig and Hammatt 2005	Field Inspection	Court Family Housing	No sites recorded
Lee-Greig and Hammatt 2006	Archaeological Monitoring	Lower West Slope of Niniwai Hill, TMK: (2) 4-9-18: por. 3,	No sites recorded
Dagan and Hammatt 2009	Archaeological Monitoring	2 Million Gallon Water Tank, Lānaʻi City, TMK: (2) 4-9-18: por. 3	No sites recorded
Hill et al. 2009, Dagan et al. 2009a	Literature Review and Field Inspection, Cultural Impact Assessment (CIA)	Lānaʻi Senior Center, TMK: (2) 4-9-006:006	No sites recorded
Lee-Greig and Hammatt 2009a, Dagan et al. 2009d	AIS (AA Report), Cultural Impact Assessment (CIA)	Lānaʻi High and Elementary School Expansion, TMK: (2) 4-9-002:058 por	No sites recorded
Lee-Greig and Hammatt 2009b, Dagan et al. 2009b	AIS, CIA	Lānaʻi City Affordable Housing Project, TMK: (2) 4-9-002:58 por. and por. of (2) 4-9-014:001, 009, and 011	One site within their project area, SIHP # -6649 (historic culvert headwall), two wood-framed historic buildings from the former Koele School outside the project area (CSH-2 and CSH-3)
Madeus et al. 2010, Cordova et al. 2010	Literature Review and Field Inspection, CIA	Lānaʻi Community Health Center, TMK: (2) 4-9-006: por. of 11	No sites recorded, presents a review of an architectural study of three small multi-family buildings removed prior to construction of the center
Pfennig et al. 2014	Archaeological Monitoring	Lānaʻi High and Elementary School, TMK: (2) 4-9-014:002	No sites recorded

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Author(s)	Type of Study	Location	Findings (SIHP #50-40-98)
DiVito et al. 2015	AIS (AA Report)	Miki Basin Pipeline, Central Services Warehouse, Multi-Purpose Field, TMK: (2) 4-9-0012:001 and (2) 4-9-014:011	Multi-Purpose Field project area was near the current project area, no sites recorded
Dye and Maly 2015	Archaeological Assessment	Proposed Helistop Pads, TMK: (2) 4-9-002:001 por.	Secondarily deposited traditional and historic artifacts collected from five locations outside the project area, no sites recorded
Dye and Maly 2016	AIS	Lānaʻi Well #7, TMK: (2) 4-9-002:001 por.	Documented a fire pit, SIHP #-1984 and collected secondarily deposited traditional Hawaiian artifacts from two locations
DiVito et al. 2017	AIS	Lānaʻi Pine Sporting Clays Shooting Range, TMK: 4-9-002:001 por.	Pineapple field ditch documented but assessed as not significant, no sites recorded
Dye and Maly 2017a	AIS (AA Report)	Kōʻele Adventure Center, TMK: (2) 4-9-018:003 (Four Sesons Resort Lodge at Kōʻele)	No sites recorded
Dye and Maly 2017b	AIS (AA Report)	Construction Staging Area, Four Seasons Resort Lodge at Kōʻele, TMK: (2) 4-9-002:001 por., **Within Parcel 2**	No sites recorded
Dye and Maly 2017c	AIS	Four Seasons Resort Lodge at Kōʻele, TMK: (2) 4-9-018:001 **Adjacent to Project Area**	Ranch-era trash pit documented and removed, likely associated with Kōʻele District (SIHP # -1004)

Author(s)	Type of Study	Location	Findings (SIHP #50-40-98)
Dye and Maly 2018a	AIS	Hōkū-ao 201-H Residential Project, TMK: (2) 4-9-002:61 por., (2) 4-9-014:001 por., (2) 4-9-014:009 por., and TMK: (2) 4-9-014:011	Two historic wood-frame buildings from the former Koele School complex and a pineapple harvester were discussed, no site numbers were designated, movement and preservation of the pineapple harvester was recommended
Dye and Maly 2018b	AIS (AA Report)	Kōʻele Sculpture Garden, TMK: (2) 4-9-018:002 por. and 003 por. (Kōʻele Golf Course)	No sites recorded
Dye and Maly 2018c	AIS (AA Report)	Lānaʻi Cemetery Expansion, TMK: (2) 4-9-002:001	No sites recorded
DiVito et al. 2019a	AIS (AA Report)	Relocation of Lānaʻi Community Garden, TMK: (2) 4-9-014:001	No sites recorded
DiVito et al. 2019b	AIS Addendum	Lānaʻi Well #7, TMK: (2) 4-9-002:001 por.	Documented 2 additional feature components of SIHP # -1984, fire pits recorded as Features B and C, also includes a surface scatter of secondarily deposited traditional Hawaiian artifacts

Kalamaiki Complex, SIHP #50-40-98-104; Kiei Complex, SIHP #50-40-98-113; Keone Complex, SIHP #50-40-98-100; Naupaka Complex, SIHP #50-40-98-105; and Anapuka House Sites, SIHP #50-40-98-109. These sites are located well outside the project area, approximately 5 miles (8 km) to the west.

The sites documented in Paomaʻi Ahupuaʻa include the Paomaʻi Complex, SIHP #50-40-98-206, located along the entire northern coastal section of Paomaʻi Ahupuaʻa and the western coastal portion of Mahana Ahupuaʻa during the survey. The complex consists of numerous Hawaiian habitation sites located at the mouths of the various gulches along the shoreline. The Paomaʻi Complex is located far to the north of the current project area.

Following his work on the statewide inventory of historic places, Robert Hommon outlined his impression of the archaeology of Lānaʻi Island. This was done in order to protect the cultural resources of the island and to guide future archaeological investigations. In his comments on the archaeology of the island Hommon states that:

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> Through a happy set of circumstances, the archaeology of Lanaʻi is almost entirely intact. Despite the fact that nearly 20% of the area of the island is under cultivation for pineapple, less than 2% of the archaeological features recorded by Emory in the early 1920's have been destroyed in the process. The reason for this is that most of the ancient population lived along the coast, and the pineapple plantation is situated on the central plateau. Today, most of the coastal sections of Lānaʻi are visited only by fishermen, who leave the ancient sites undisturbed.
>
> The high degree of preservation on Lanaʻi is in sharp contrast to the situation on the five larger islands in the group, where numerous sites have been expunged from the landscape by ranching, agriculture, and urban and resort development. (Hommon 1974:1)

Hommon also recommended that due to the completeness of the archaeological record an island-wide research design be developed. This recommendation was in response to a development plan by Castle and Cooke that would have substantially altered a large portion of the island. However, the development plans never materialized, and no island-wide research design is known to have been written.

3.2.3 Kaschko 1986

In 1986, International Archaeological Research Institute Inc. (IARII) conducted an archaeological reconnaissance survey with limited subsurface testing for the Koele Hotel, now known as the Four Seasons Lodge at Kōʻele, located adjacent to the current project area (Kaschko 1986). The survey consisted of a pedestrian survey and the excavation of 20 auger tests to depths ranging from 100-140 cm below the ground surface (cmbs). Features of the Kōʻele District (SIHP # -1004) were presented. No subsurface deposits were encountered in any of the auger excavations. Sparse artifacts were observed on the ground surface, including marine shell, old bottle glass, and ceramic fragments. It was also noted that during routine work near a nursery area a quadrangular polished adze was found by grounds workers. The lack of prehistoric archaeological sites was attributed to overgrazing and use of the area for ranching. It was also noted that historic ranch-associated deposits were likely to be present.

The Kōʻele District (SIHP # -1004) was described within Kaschko (1986) as containing four previously documented features and two newly documented features. Previously documented features included a house once used as the Koele School House (Structure A, also referred to as the "Richardson House" and known as the oldest house in Kōʻele), the Ka Lokahi Oka Malamalama Hoomana Naʻauao O Hawaii Church (Structure B, built in 1930), and 2 house/office buildings (Structures C [also referred to as the George Ohashi house] and D [also referred to as the Pablo Ribero house]). Structures C and D were dismantled and moved from the Maunalei Sugar Company camp at Keomuku to Kōʻele sometime between 1902-1917 as a result of a lack of water in the Keomuku area (Kaschko 1986:16, Hammatt 1988:35). It was noted that while at Kōʻele, Structure D had been used as the ranch office and once had an addition which served as a store with a post office (Kaschko 1986:17). The study included two new features within the Kōʻele District, including an old reservoir (Structure E) and the Ernest and Rebecca Richardson house (Structure F). The reservoir was thought to have been constructed circa 1900 and was used to water livestock. Figure 25 provides a map of the Kōʻele District showing locations of all these features. The extent of the map borders the east side of the current project area.

A description of the Kōʻele District property is described by Mr. Ernest Richardson and provided by Kaschko (1986). The description states that in 1926 when Mr. Richardson arrived he was 16 years old and the ranch was thriving:

> Koele was a community composed of more than 30 major buildings, including the ranch manager's house, the office and store, bachelor quarters, the stables, a blacksmith shop, etc. as well as many regular houses…after the pineapple plantation started up the size of the ranch settlement at Koele slowly declined. The ranching operation ceased entirely in 1951, and the old ranch manager's house was torn down in about 1953 or 1954. The old reservoir (Structure E) went out of use about 1945 or 1946, and Mr. Richardson used it as an arena for training horses after this. (Kaschko 1986:11)

Several of the houses documented within the Kōʻele District (SIHP # -1004) have been relocated. The old Koele School House (Structure A) was moved to a location just outside Lānaʻi City. The building was documented in disrepair during two archaeological surveys of that area for the Lānaʻi City Affordable Housing project (Lee-Greig and Hammatt 2009b) and the Hōkū-ao 201-H Residential project (Dye and Maly 2018a). Due to the building being exposed to the elements for many years it was assessed as lacking sufficient integrity to be listed on the National Register of Historic Places (NRHP) (Dye and Maly 2018a:135). The church building (Structure B) has also been moved and is currently situated adjacent to Keomoku Road on the front lawn of the Lodge at Kōʻele, a short distance west of its original location. The two house/offices buildings (Structures C and D) have been moved to the eastern portion of the current project area. One of the houses is currently occupied by tenants and the other is the office for the Culture and Historic Preservation Division of Pūlama Lānaʻi. The integrity and eligibility of the homes has not been previously assessed.

3.2.4 Hammatt 1987

In 1987, Cultural Surveys Hawai'i (CSH) conducted an archaeological reconnaissance for the Lalakoa III subdivision, located within Lānaʻi City (Hammatt 1987). The results of the reconnaissance survey indicated that long-term use of the area for pineapple cultivation had destroyed any historical or archaeological remains that might have been deposited there. The proposed subdivision was determined to have no impact on archaeological resources and no historic properties were documented.

3.2.5 Estioko-Griffin 1988, Pieterusewsky 1988

In 1988, Agnes Estioko-Griffin and Matt Spriggs documented SIHP #50-40-98-1528, a subsurface cultural deposit and an associated juvenile burial exposed during improvements to Keomuku Highway (Estioko-Griffin 1988). The site is interpreted to date to the pre-contact Hawaiian period based on radiocarbon dating of unidentified wood charcoal. The osteological analysis was conducted by Dr. Michael Pietrusewsky of the University of Hawaiʻi at Manoa (Pietrusewsky 1988).

REF-141

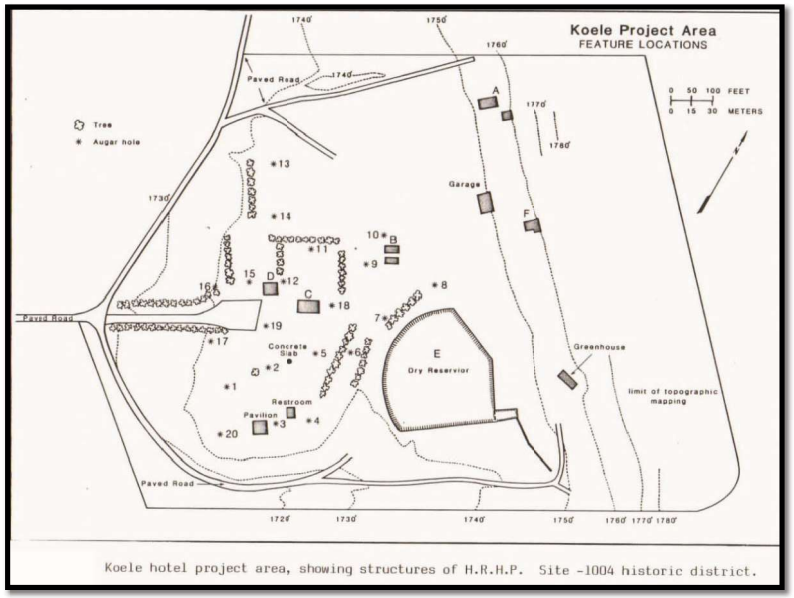

Figure 25. Map showing Kō‘ele District features (Kaschko 1986:5), notice the locations of Structures C and D which are later relocated to Parcel 2 of the current project area

3.2.6 Hammatt and Borthwick 1988

In 1988, CSH conducted an archaeological investigation for the Lalakoa III subdivision (Hammatt and Borthwick 1988). The investigation included the surface collection of 71 basalt artifacts and 4 volcanic glass flakes. The basalt artifact assemblage was comprised of basalt flakes, retouched basalt flakes, and adze preforms. Subsurface excavations included a single test pit excavated in the northeast portion of the project area to a depth of 100 cmbs. A cut bank profile in the northwest corner of the project area was also documented. A plow zone ranging in depth from 30-40 cmbs over B and C horizons was documented throughout the project area. The basalt materials on the property were found in association with quarried road gravel presumably taken from near the K′oi Adze Quarry in Pālāwai Basin and were attributed to that source. Due to the lack of subsurface remains on the property no further work was recommended.

3.2.7 Hammatt et al. 1988

In 1988, CSH conducted an archaeological investigation and monitoring of a 20-acre parcel for the Four Seasons Lodge at Kō‘ele, located adjacent to the current project area (Hammatt et al. 1988). Excavations were conducted on two historic ranch-era trash pits found near the former Lanai Ranch Headquarters (inferred as part of the Kō‘ele District [SIHP # -1004]). Over 1,000

artifacts dating from the 1870’s to 1930’s were recovered during the project and contributed much to the knowledge of ranch life at Kō‘ele. The report provides a comprehensive background on Lanai Ranch.

Archaeological monitoring was also conducted for the project. A total of nine historic features were documented including a circa 1970s cesspool (Feature 1), a charcoal and ash concentration (Feature 2), an imu pit (Feature 3), a circa 1970s drywell (Feature 4), a possible fire pit containing bottle glass (Feature 5), an ash and charcoal deposit containing historic refuse (Feature 6), a possible cistern (Feature 7), historic refuse (Feature 8), and a portion of large trash pit (Feature 9) which was also excavated by hand earlier in the project.

Hammatt et al. (1988:36) noted that during their study the “only buildings remaining of the ranch days were John and Hannah Richardson’s house [Structure A], Ernest and Rebecca Richardson’s house [Structure F] the small Sunday School building and the church building [Structure B] which had already been relocated makai to its present location”. Figure 26 shows trench excavations and features locations of the Kō‘ele District (SIHP # -1004).

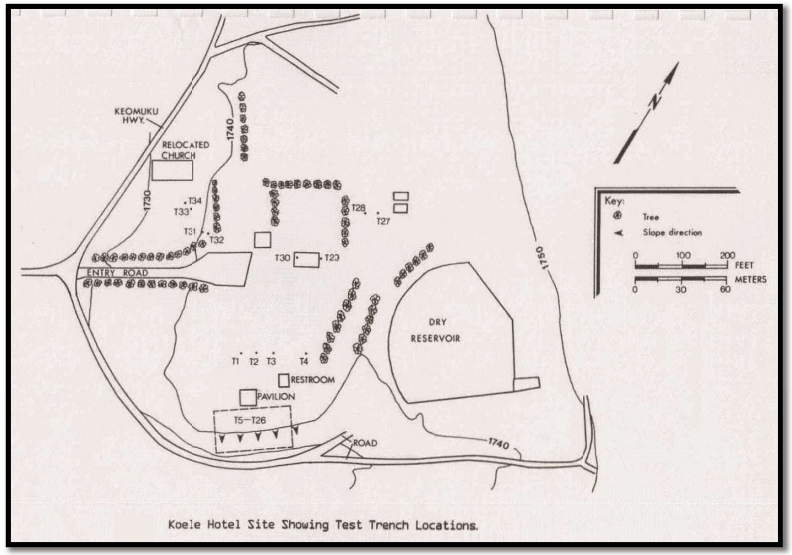

Figure 26. Map showing Test Trench Locations and Features of the Kō‘ele District (Hammatt et al. 1988:5), notice the church (Structure B) has been “relocated”

REF-142

Notice that Structures C and D are shown on Figure 26, however, the report refers to the "former location" of Structure C and excavations were conducted within the footprint of that building. Hammatt et al. (1988:42) notes "a surface scatter of historic debris was observed around the former location of building C. However, test Trenches 29, 30 showed no subsurface concentrations." This indicates that by 1988 Structures C and D had likely been moved to Parcel 2 of the current project area.

3.2.8 Borthwick and Hammatt 1989

In 1989, CSH conducted a reconnaissance survey of the Waialua Multi-Family Housing Project, now known as the Iwiole Dormitories (Borthwick and Hammatt 1989). A single basalt flake was collected during the project and the area was determined to have been disturbed during cultivation activities in the area. No historic properties or intact subsurface deposits were recorded.

3.2.9 Hammatt and Borthwick 1989

In 1989, CSH conducted reconnaissance surveys of four localities in Lānaʻi City, including the Kōʻele Golf Course, Kōʻele single-family housing, Queen's multi-family housing, and the Olopua Woods subdivision (Hammatt and Borthwick 1989).

A total of six features were documented during the survey of the Kōʻele Golf Course. Features 1-3 consisted of two reservoirs and a ditch system within Kaiholena Gulch. These features would eventually be recorded as SIHP #50-40-98-1592, SIHP #50-40-98-1593, and SIHP #50-40-98-1594 respectively. Feature 4 was a surface scatter of historic debris associated with the Charles Gay Lālākoa homestead. The homestead was thought to have been built in 1905 and demolished in 1960. It was eventually recorded as SIHP #50-40-98-1595. Feature 5 was a secondarily deposited surface scatter of basalt flakes and volcanic glass within and adjacent to the old pineapple fields. It was eventually recorded as SIHP #50-40-98-1596. Feature 6 was a volcanic glass source on a steep northeast facing slope. A total of twenty-three volcanic glass samples were collected from the exposure. Data recovery was recommended for Features 1-5 and no further work was recommended for Feature 6.

No historic properties, subsurface deposits, or cultural materials were observed at the Kōʻele single-family housing, the Queen's multi-family housing, or the Olopua Woods subdivision. The lack of sites was attributed to the areas being under pineapple cultivation for many years.

3.2.10 Hammatt and Borthwick 1990

In 1990, CSH conducted an additional archaeological survey of 100 acres of land on the eastern side of the Kōʻele Golf Course (Hammatt and Borthwick 1990). The survey consisted of pedestrian reconnaissance across the entire project area. An eroded 600 ft long ditch associated with the late-19th century Kōʻele reservoir complex was documented along the southwest side of Kaiholena Gulch. The ditch was interpreted as being used for flood water diversion and did not empty into any of the reservoirs. An associated charcoal deposit was documented in alluvial sediments truncated by the ditch and was attributed to clearing of the area for the construction of the reservoirs. The two reservoirs and ditch were documented during the initial survey of the Kōʻele Golf Course and eventually became SIHP #50-40-98-1592, SIHP #50-40-98-1593, and SIHP #50-40-98-1594. Data recovery consisted of mapping and collecting a charcoal sample for radiocarbon dating. Following data recovery, the site was assessed as no longer significant and no further work was recommended.

3.2.11 Borthwick and Hammatt 1992

In 1992, CSH conducted an archaeological assessment for the proposed Kōʻele Reservoir and access road (Borthwick and Hammatt 1992). The survey consisted of pedestrian reconnaissance of a 100 ft wide, 900 ft long access road corridor and the approximately 3-acre reservoir. No historic properties, subsurface deposits, or cultural materials were documented. The lack of sites documented during the project was attributed to the steep soil slope of the project area.

3.2.12 Hammatt and Chiogioji 1992

In 1991, CSH conducted archaeological monitoring for a short length of sewer line located within the Waialua Annex subdivision (Hammatt and Chiogioji 1992). The plow zone was observed in the trench to a depth of 70 cmbs and no historic properties, subsurface deposits, or cultural materials were documented during the project.

3.2.13 Hammatt and Borthwick 1993a

In 1993, CSH completed data recovery and monitoring work conducted at the Kōʻele Golf Course (Hammatt and Borthwick 1993a). The report highlights the results of data recovery investigations carried out during archaeological monitoring on Features 1-5 previously documented during the 1989 survey of the golf course (Hammatt and Borthwick 1989). The data recovery effort focused on SIHP # -1592 (reservoir), SIHP # -1593 (reservoir), SIHP # -1594 (ditch system), SIHP # -1595 (historic debris associated with the Charles Gay Lālākoa homestead), and SIHP # -1596 (secondarily deposited traditional Hawaiian artifact scatter). Data recovery of the first three sites, the late-19th century reservoirs and their associated weir and ditch system, consisted of background research, photography and mapping. Subsurface testing by backhoe was conducted at the homestead and volcanic glass quarry. No subsurface deposits or artifacts were encountered at either location. No site recommendations or eligibility information were included in the report.

3.2.14 Hammatt and Borthwick 1993b

In 1993, CSH conducted an archaeological inventory survey for the proposed Kōʻele Waste Water Treatment project which connected the Lānaʻi Treatment plant with the Kōʻele Golf Course irrigation system (Hammatt and Borthwick 1993b). The survey consisted of the pedestrian reconnaissance of a 13,000 ft long (4000 m), 100-150 ft (30-40 m) wide wastewater pipeline corridor. No historic properties, subsurface deposits, or cultural materials were documented. The lack of archaeological sites identified during the survey was attributed to use of the area for commercial pineapple cultivation.

3.2.15 Hammatt and Chiogioji 1993

In 1993, CSH conducted an archaeological inventory survey of a 1-acre parcel for the Lānaʻi Veterans Cemetery (Hammatt and Chiogioji 1993). The survey consisted of pedestrian reconnaissance of the project area. Heavy erosion was noted and no artifacts, surface architecture, or cultural deposits were observed during the project. Following the survey, no further work was recommended for the project.

3.2.16 Hammatt 1996

In 1996, CSH conducted an archaeological inventory survey for the Lānaʻi Pine Sporting Clays shooting range (Hammatt 1996). The survey consisted of pedestrian reconnaissance of the project area. No artifacts, surface architecture, or cultural deposits were observed in the project area. However, a rectangular enclosure with associated agricultural features recorded as SIHP #50-40-98-1598 was encountered outside the project area to the west. The site was interpreted as a traditional Hawaiian habitation site and passive preservation was recommended. Due to the negative results within the project boundary no further work was recommended for the project.

3.2.17 Creed et al. 2000

In 2000, CSH conducted an archaeological inventory survey consisting of a pedestrian survey of a 50-acre Hawaiian Homelands parcel located at the northwest corner of Lānaʻi City (Creed et al. 2000). No cultural materials were observed, and no historic properties were recorded due to the use of the area for pineapple cultivation.

3.2.18 Fredericksen 2002

In 2002, Xamanek Researches conducted an archaeological inventory survey of the Lānaʻi Police Station (Fredericksen 2002). No historic properties or cultural deposits were documented during the project.

3.2.19 Raymond 2003

In 2003, the U.S. Fish and Wildlife Service conducted a cultural resources investigation for the Lānaʻi Summit Fence (Raymond 2003). The survey was conducted on a 7.5 km long 6 meter wide corridor. No cultural resources were identified in the project area. However, Hiʻi Heiau, SIHP #50-40-98-029, was relocated during the project approximately 25 meters northeast of the project corridor.

3.2.20 Hammatt and Shideler 2004, Lee-Greig and Hammatt 2007

In 2004, CSH conducted an archaeological inventory survey of sites located on the lower west slope of Niniwai Hill (Hammatt and Shideler 2004). During the project they documented and mapped Kihamāniania Church, SIHP #50-40-98-1946, and identified 18 burials within the associated graveyard, SIHP #50-40-98-1947. A historic "altitude breaker", SIHP #50-40-98-1600, and a historic improved trail, SIHP #50-40-98-1601, were also documented during the project. The altitude breaker served to catch water running off Niniwai Hill and dissipate its force (Hammatt and Shideler 2004:39). No pre-contact sites or surface artifacts were observed. In 2007, a preservation plan was written for the Kihamāniania Church (SIHP # -1946) and its associated graveyard (SIHP # -1947) (Lee-Greig and Hammatt 2007).

3.2.21 Conley-Kapoi and Hammatt 2005

In 2005, CSH conducted an archaeological inventory survey for a 7.673-acre parcel northwest of Lānaʻi City (Conley-Kapoi and Hammatt 2005). Due to the negative survey results it was termed an archeological assessment. During the project a pedestrian survey of 4.3 acres of the parcel was conducted. The remaining 3.3 acres was not surveyed as it was part of the previously developed

Kanepuʻu Subdivision. No historic properties or cultural remains were documented during the project.

3.2.22 Lee-Greig and Hammatt 2005

In 2005, CSH conducted a field inspection for the Court Family Housing project (Lee-Greig and Hammatt 2005). No cultural materials or historic properties were identified during the pedestrian survey.

3.2.23 Lee-Greig and Hammatt 2006

In 2006, CSH conducted archaeological monitoring for a sewer pipeline extending down the slope of Niniwai Hill from Lauhala Place to Sixth Street (Lee-Greig and Hammatt 2006). Due to miscommunication, the excavation of the sewer line was not monitored and an after-the-fact inspection of 30-40 meters of trench was conducted. No historic properties, subsurface deposits, or cultural materials were documented during the project.

3.2.24 Dagan and Hammatt 2009

In 2006, CSH conducted archaeological monitoring for a two million gallon water tank at a 1.5-acre project area located at Kōʻele (Dagan and Hammatt 2009). A cow bone, a glass marble and a glass insulator were collected during monitoring. No historic properties, subsurface deposits, or pre-contact artifacts were documented during the project.

3.2.25 Hill et al. 2009, Dagan et al. 2009a

In 2009, CSH conducted a literature review and field inspection and a cultural impact assessment for the proposed Senior Center at Lānaʻi City (Hill et al. 2009, Dagan et al. 2009a). No historic properties, subsurface deposits, or cultural materials were documented during the project.

3.2.26 Lee-Greig and Hammatt 2009a, Dagan et al. 2009d

In 2009, CSH conducted an archaeological inventory survey and cultural impact assessment for the Lānaʻi High and Elementary School expansion (Lee-Greig and Hammatt 2009a, Dagan et al. 2009d). Due to the negative results the project was termed an archaeological assessment. The assessment consisted of a pedestrian survey of the approximately 50-acre project area. No historic properties or cultural materials were documented during the project. The lack of sites was attributed to use of the area for commercial pineapple cultivation.

3.2.27 Lee-Greig and Hammatt 2009b, Dagan et al. 2009b

In 2009, CSH conducted an archaeological inventory survey and a cultural impact assessment for a 73-acre parcel for the Lānaʻi Affordable Housing project (Lee-Greig and Hammatt 2009b, Dagan et al. 2009b). The inventory survey consisted of a pedestrian survey and the excavation of five backhoe trenches. An historic-era culvert head wall, SIHP #50-40-98-6649 was the only site documented during the project. It was assessed as eligible for listing on the Hawaiʻi Register of Historic Places under Criterion d and no other work was recommended.

Two 1920's wood frame buildings documented as CSH-2 and CSH-3 were also documented outside of their project area during the survey. CSH-2 was identified as a building associated with the Kōʻele School complex and CSH-3 was identified as the original Kōʻele single-room

schoolhouse. The buildings were moved to their location in the mid-1980's during preservation efforts made through an agreement with Castle and Cooke Resorts. The buildings were described as "in an extensive state of disrepair" (Lee-Greig and Hammatt 2009c:56). However, both structures were assessed as eligible for listing on the Hawai'i Register under Criterion d.

No cultural materials or subsurface deposits were documented in any of the backhoe trenches excavated. The lack of sites in the project area was attributed to modification of the area for commercial pineapple production and the development of Lānaʻi City.

3.2.28 Madeus et al. 2010

In 2010, CSH conducted a literature review and field inspection for the Lānaʻi Community Health Center (Madeus et al. 2010). No historic properties, deposits, or artifacts were observed during the pedestrian survey of the property. Three historic multi-family homes on the property were removed prior to construction and the architectural survey of these structures is discussed in the report. They were determined to be non-contributing features of Lānaʻi City.

3.2.29 Pfennig et al. 2014

In 2014, CSH conducted archaeological monitoring for the Lānaʻi High and Elementary School (Pfennig et al. 2014). Modern trash was observed in all stratigraphic layers. No historic properties, subsurface deposits, or significant cultural materials were documented.

3.2.30 DiVito et al. 2015

In 2013, T.S. Dye and Colleagues conducted an archaeological inventory survey for the Miki Basin Pipeline, the Central Services Warehouse, and a Multi-Purpose Field (DiVito et al. 2015). Due to the negative survey results the project was termed an archaeological assessment. The multi-purpose field was located within Lānaʻi City whereas the pipeline and warehouse areas were well to the south. A visual inspection of the multi-purpose field was conducted and eight shovel test probes extending to a depth of 60 cmbs were excavated. No historic properties, subsurface deposits, or cultural materials were documented.

3.2.31 Dye and Maly 2015

In 2015, T.S. Dye and Colleagues Archaeologists Inc. (T.S. Dye) conducted an archaeological assessment for two proposed Helistop pads, one near the Four Seasons Lodge at Kōʻele and one near the Four Seasons Resort at Mānele (Dye and Maly 2015). The assessment consisted of a pedestrian survey at both locations. The Kōʻele Helistop location borders is located approximately 480 meters southeast of the current project area and is adjacent to Keomuku Highway. Secondarily deposited basalt flakes, two polished adze flakes, glass, and rebar were collected from the ground surface at five separate locations outside the proposed helistop area. No artifacts were observed or collected from the surface of the proposed helistop pad. The secondarily deposited artifacts and lack of archaeological sites were attributed to the area being under commercial pineapple cultivation for many years.

Nothing was observed or collected from the ground surface of the Mānele Helistop pad. The lack of sites and artifacts were attributed to previous grading of the area for a nursery facility. Based on the negative field results it was determined that no historic properties would be affected by helistop construction.

3.2.32 DiVito et al. 2017

In 2015, T.S. Dye conducted an archaeological inventory survey for the Lānaʻi Pine Sporting Clays shooting range renovation project (DiVito et al. 2017). The survey area comprised 36-acres and included a portion of the area previously surveyed by Hammatt (1996) for the facility. The survey consisted of pedestrian reconnaissance of the area and the excavation of six shovel test probes. The pedestrian survey documented a ditch running across the project area that was attributed to preparation of the area for pineapple production. Due to diches being present in all the pineapple fields of the island it was evaluated as not significant. No artifacts were observed or collected from the surface or from any of the shovel test probes. The negative findings were attributed to modification of the area for commercial pineapple production, use as a horse pasture, and construction for use of the area as a shooting range.

3.2.33 Dye and Maly 2017a

In 2017, T.S. Dye conducted an archaeological inventory survey for the proposed Kōʻele Adventure Center at the Four Seasons Resort Lodge at Kōʻele (Dye and Maly 2017a). Due to the negative survey results the project was termed an archaeological assessment. The assessment consisted of a pedestrian survey of the 20.5-acre project area and the excavation of four shovel test probes. No historic properties, subsurface deposits, or cultural materials were documented.

3.2.34 Dye and Maly 2017b

In 2017, T.S. Dye conducted an archaeological inventory survey for a construction stockpiling and staging area at the Four Seasons Resort Lānaʻi, Kōʻele (Dye and Maly 2017b). The assessment consisted of a pedestrian survey of the 3.1-acre project area and excavation of four backhoe trenches. No historic properties, subsurface deposits, or cultural materials were documented.

3.2.35 Dye and Maly 2017c

In 2017, T.S. Dye conducted an archaeological inventory survey for proposed improvements at the Four Seasons Resort Lānaʻi, Kōʻele (Dye and Maly 2017c). Due to the negative survey results the project was termed an archaeological assessment. The survey consisted of a mixture of backhoe and shovel trenches in sixteen excavation areas. A single historic-era trash pit was documented during the project, containing materials similar to those documented in the ranching-era trash pits identified in the 1980's (Hammatt et al. 1988). The trash pit is inferred to be part of the Kōʻele District (SIHP # -1004) although the site number is not stated in either Hammatt et al. (1988) or Dye and Maly (2017c). Secondarily deposited artifacts from the demolition of ranch buildings were also observed. Dye and Maly (2017c) note that "excavations in the vicinity of the Lodge established that grading associated with development has removed the sediments typically investigated by archaeologists. The grading appears to have cut well into the subsoil to depths beyond which historic properties are likely to be found." It was determined that the project would not affect historic properties in the area.

3.2.36 Dye and Maly 2018a

In 2018, T.S. Dye conducted an archaeological inventory survey for the proposed Hōkū-ao 201-H Residential project located west of Lānaʻi City (Dye and Maly 2018a). The survey consisted of a pedestrian reconnaissance and the excavation of 26 backhoe trenches throughout the 105-acre project area.

Three potential historic properties were documented during the surface survey and include two historic wood-frame buildings from the Kōʻele School complex and a pineapple harvester, all of which were moved to the area for preservation purposes in the mid-1980's. The two wood-frame buildings were originally documented during an archaeological inventory survey in 2009 (Lee-Greig and Hammatt 2009b). The structures were assessed to be in poor condition at that time and have become more dilapidated and overgrown since. The Dye and Maly (2018a) study also assessed the buildings to be in poor condition and as lacking the integrity to be listed on the Hawaiʻi Register of Historic Places.

A pineapple harvester in the possession of the Lānaʻi Culture and Heritage Center was located on the property and was assessed as possessing sufficient integrity for listing under Criterion A, due to its association with commercial pineapple pursuits on the island. It was recommended that the machine be moved to an off-site sheltered location for restoration and interpretative display.

The plow zone with degrading black plastic fragments was observed throughout much of the project area and no artifacts or cultural deposits were documented in any of the backhoe trench excavations. The lack of sites in the project area was attributed to the area being under pineapple cultivation for many years and disturbances from the construction of Lānaʻi City.

3.2.37 Dye and Maly 2018b

In 2018, T.S. Dye conducted an archaeological inventory survey for the proposed Kōʻele Sculpture Garden (Dye and Maly 2018b). Due to the negative survey results the project was termed an archaeological assessment. The project proposed placing sculptures at various locations on the Kōʻele Golf Course. Based on a thorough review of the historical background, previous archaeological surveys of the golf course, and the grading plans it was determined that the potential for subsurface remains in the project area was minimal and the project would not affect nearby historic properties.

3.2.38 Dye and Maly 2018c

In 2018, T.S. Dye conducted an archaeological inventory survey for the proposed Lānaʻi Cemetery expansion (Dye and Maly 2018f). Due to the negative survey results the project was termed an archaeological assessment. The assessment consisted of a pedestrian survey and the excavation of six backhoe trenches. No artifacts or surface architecture were observed on the ground surface and no cultural deposits or artifacts were encountered in the backhoe trench excavations. The lack of artifacts and historic properties was attributed to modification of the area for various construction and stockpiling uses. The negative findings were consistent with the previous findings for the area (Hammatt and Borthwick 1989).

3.2.39 DiVito et al. 2019a

In 2019, Honua Consulting conducted an archaeological inventory survey for the proposed relocation of the Lānaʻi Community Gardens. (DiVito et al. 2019a). Due to the negative survey results the project was termed an archaeological assessment. The assessment consisted of a pedestrian survey and the excavation of ten backhoe trenches across the area. No artifacts, subsurface deposits, or cultural materials were documented. The negative results were attributed to use of the area for commercial pineapple production.

3.2.40 DiVito et al. 2019b

In 2019, Honua Consulting conducted an archaeological inventory survey addendum to the previous survey of Lānaʻi Well #7 (DiVito et al. 2019b). The survey documented two fire pit features and a surface scatter of secondarily deposited traditional Hawaiian artifacts recorded as components of SIHP #-1984, documented during the previous survey of Lānaʻi Well #7 (Dye and Maly 2016). The fire pits were designated feature components B and C. Fire pit B was located along the northern boundary of the project area and was sampled for analysis. Wood charcoal was sampled from the base of the fire pit and was sent for species identification and radiocarbon dating. Radiocarbon dating on a piece of wood charcoal from the Sapote family returned a calibrated date range of A.D. 1447-1634. Fire pit C was located outside the project area to the east and was not sampled during the project.

A total of 39 secondarily deposited artifacts were collected from the ground surface during the project, 35 of which were pieces of volcanic glass. The remaining four artifacts were finished ground stone and/or tool fragments. A sample of six pieces of volcanic glass and a single polished adze flake were sent to the University of Hawaiʻi-Hilo for Energy Dispersive X-Ray Flourescence (EDXRF) analysis. It was determined that the six pieces of volcanic glass were locally procured and fell well within the range of volcanic glass from Lānaʻi. The polished adze flake was determined to have come from an off-island source and did not match the geochemistry of the island of Lānaʻi. It shares some similarities with the Mauna Kea Adze Quarry on Hawaiʻi island but matched better with adze material analyzed from east Molokaʻi (Mills et al. 2018).

3.3 Summary of Nearby Historic Properties

A total of 17 historic properties are present within 1.5 miles of the project area (see Figure 24). Parcel 2 is located entirely within an existing historic property. It is identified as the as the Kōʻele District, SIHP #-1004, which originally consisted of the former location of the Lanai Ranch Headquarters (circa 1870s-1951) and four preserved ranch-era structures in and around the Lodge at Kōʻele. None of the former Ranch Headquarters buildings currently exist on the property, rather, all buildings that contribute to the significance of the site have been moved from their original locations.

The district was originally recorded during the Statewide Inventory of Historic Places study conducted in 1974 (Hommon 1974, Wright 1974; Appendix C). Originally, SIHP # -1004 included four buildings (Structures A-D). Two additional structures (Features E-F) were subsumed into the site during an archaeological survey of the Koele Hotel (subsequently named the Four Seasons Resort at Kōʻele) (Kaschko 1986).

Several of the houses documented within the Kōʻele District (SIHP # -1004) have been relocated. The old Koele School House (Structure A) was moved to a location just outside Lānaʻi City. The building was documented in disrepair during two archaeological surveys of that area for the Lānaʻi City Affordable Housing project (Lee-Greig and Hammatt 2009b) and the Hōkū-ao 201-H Residential project (Dye and Maly 2018a). Due to the building being exposed to the elements for many years it was assessed as lacking sufficient integrity to be listed on the National Register of Historic Places (NRHP) (Dye and Maly 2018a:135). The church building (Structure B) has also been moved and is currently situated adjacent to Keomoku Road on the front lawn of the Lodge at Kōʻele, a short distance west of its original location. The two house/offices buildings (Structures C and D) were moved into the eastern portion of the current project area in the late

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1980's during the construction of the Four Seasons Resort. One of the houses is currently occupied by tenants and the other is the office for the Culture and Historic Preservation Division of Pūlama Lānaʻi. The integrity and eligibility of the homes has not been previously assessed.

Subsurface deposits associated with SIHP #-1004 were documented during the salvage excavation of two historic ranch-era trash pits found near the former Lanai Ranch Headquarters (inferred as part of the Kōʻele District [SIHP # -1004]) during construction of the hotel (Hammatt 1988). An additional nine features were documented during subsequent archaeological monitoring and included a circa 1970s cesspool (Feature 1), a charcoal and ash concentration (Feature 2), an imu pit (Feature 3), a circa 1970s drywell (Feature 4), a possible fire pit containing bottle glass (Feature 5), an ash and charcoal deposit containing historic refuse (Feature 6), a possible cistern (Feature 7), historic refuse (Feature 8), and a portion of large trash pit (Feature 9) which was also excavated by hand earlier in the project. More recently, an additional historic trash pit (inferred as part of the Kōʻele District [SIHP # -1004]) was documented during an archaeological inventory survey conducted for improvements to the Four Seasons Resort at Kōʻele (Dye and Maly 2017c).

The closest nearby historic property is a pre-contact Hawaiian (Pre-1778) site, SIHP #50-40-98-1984 located approximately 720 meters northwest of the project area (Dye and Maly 2016 and DiVito et al. 2019b). It consists of three truncated fire pit features and a surface scatter of secondarily deposited traditional Hawaiian artifacts. Short-lived wood charcoal from two fire pits on the site yielded a calibrated age range of A.D.1430-1630 and A.D. 1447-1634 placing its use wholly within the traditional Hawaiian period.

Another nearby pre-contact Hawaiian site is the Keomoku Road Complex, SIHP #50-40-98-1528, located approximately 1.5 km north of the current project area on the opposite side of Keomuku Road (see Figure 24). The site was documented summarily by Agnes Estioko-Griffin and Matthew Spriggs during construction activity in 1988 (Estioko-Griffin 1988). The site consisted of the inadvertently discovered human skeletal remains of child and a subsurface cultural deposit interpreted to be pre-contact Hawaiian in age based on the radiocarbon dating of unidentified wood charcoal.

An additional pre-contact Hawaiian habitation site consisting of a rectangular dry stacked basalt enclosure with associated agricultural features was documented during the survey for the Lānaʻi Pine Sporting Clays shooting range (Hammatt 1996). The site was recorded as SIHP #50-40-98-1598 and is located approximately 2.4 km to the north. Due to being outside the survey boundary of the project, only passive preservation was recommended for the site.

Other sites documented in the area have been early settlement (early- to mid-19th century) and ranch-era (mid-19th century to early-20th century) historic properties located south and east of the project area in Kōʻele and Lānaʻi City.The early settlement sites include the Kihamāniania Church (SIHP # -1946) and its associated burial complex at Nininiwai Hill (SIHP # -1947) (Hammatt and Shideler 2004). Ranch-era historic properties include two reservoirs (SIHP # -1592 and -1593) and a weir ditch system (SIHP # -1594) (Hammatt and Borthwick 1989, Hammatt and Borthwick 1993a).

An additional historic property was documented in the area of the Kōʻele Golf Course and included a secondarily deposited lithic scatter (SIHP # -1596). Data recovery by use of backhoe trenching was conducted at the site. No subsurface deposits were encountered, and no additional work was recommended (Hammatt and Borthwick 1993a). Other nearby historic properties include a historic "altitude breaker" (SIHP # -1600) and an improved trail (SIHP # -1601) located

in the area of Nininiwai Hill. A historic-era drain culvert headwall (SIHP # -6649) associated with the early growth of Lānaʻi City was also documented (Lee-Greig and Hammatt 2009b).

The Lānaʻi City Country Town Historic District (SIHP #50-40-98-1006), is the located to the south. It consists of the central living area of Lānaʻi which includes housing, churches, and recreational facilities.

Other sites include two isolated habitation features recorded by Emory (1924) in the 1920's and include a stone house terrace at Kanaʻenaʻe (SIHP # -099) and an excavated terrace at Pulehua (SIHP # -107). The sites are the most distant from the project area and are located in neighboring Kalulu Ahupuaʻa. SIHP # -107 is approximately 2.3 km to the southeast and SIHP # -099 is approximately 2.4 to the south.

Table 10. Archaeological Sites Documented Within a 1.5 mile Radius of the Project Area

Reference	SIHP #50-40-98	Site Type	Site Significance	Recommendation	Notes
Emory 1924	-099	Traditional House Site	Unknown	None	
Emory 1924	-107	Traditional House Site	Unknown	None	
Hommon 1974	-1004	Kōʻele District	Unknown	Moderate value, "Reserve" status	4 buildings
Kaschko 1986	-1004	Kōʻele District	Unknown		Relocated 4 buildings (Structures A-D) and added 2 feature components, Feature E (historic reservoir) and F (Richardson House)
Hammatt et al. 1988	-1004	Kōʻele District	Unknown		Conducting salvage excavations on two historic trash pits, documented 9 additional historic feature components during monitoring
Dye and Maly 2017c	-1004	Kōʻele District	Unknown		Documented a single trash pit during monitoring

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Reference	SIHP #50-40-98	Site Type	Site Significance	Recommendation	Notes
2018	-1006	Lanai City Country Town Historic District	Unknown	Unknown	Info provided by SHPD
Estioko-Griffin 1988, Pietrusewsky 1988	-1528	Keomoku Road Complex	Unknown	Unknown	Inadvertently discovered human skeletal remains and cultural deposit
Hammatt and Borthwick 1993a	-1592	Historic Reservoir	Not stated	No further work	Data recovery conducted
Hammatt and Borthwick 1993a	-1593	Historic Reservoir	Not stated	No further work	Data recovery conducted
Hammatt and Borthwick 1993a	-1594	Ditch System	Not stated	No further work	Data recovery conducted
Hammatt and Borthwick 1993a	-1595	Historic Artifact Scatter	Not stated	No further work	Data recovery conducted
Hammatt and Borthwick 1993a	-1596	Secondarily Deposited Lithic Scatter	No longer significant	No further work	Data recovery conducted
Hammatt 1996	-1598	Traditional Hawaiian Habitation Site	Not stated	Passive Preservation	
Hammatt and Shideler 2004	-1600	Historic "Altitude Breaker"	Criterion d	Consultation in writing with SHPD prior to any substantial alteration	

Reference	SIHP #50-40-98	Site Type	Site Significance	Recommendation	Notes
Hammatt and Shideler 2004	-1601	Historic Improved Trail	Criterion d	Consultation in writing with SHPD prior to any substantial alteration	
Hammatt and Shideler 2004	-1946	Kihamānian ia Church	Criteria a, c, d, and e	Preservation	
Hammatt and Shideler 2004	-1947	Kihamānian ia Church Burial Area	Criteria d and e	Preservation	
Dye and Maly 2016, DiVito et al. 2019b	-1984	Traditional Hawaiian Fire pits and artifact scatter	Criterion d	No further work	
Lee-Greig and Hammatt 2009b	-6649	Historic Drain Culvert Headwall	Criterion d	No further work	

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3.4 Summary of Previous Archaeology

Archaeological research on the island of Lānaʻi indicates that the traditional Hawaiian settlement pattern was focused along the coastline. It is believed that the interior of the island was used seasonally for agricultural pursuits and habitation and included the Kōʻele and Pālāwai areas. Except for a few studies, archaeological investigations in the area of have had largely negative results. Secondarily deposited lithic scatters have been observed on the surface but no evidence of pre-contact sites have ever been recorded in the area comprising Lānaʻi City or Kōʻele. This is likely due in part to modifications made to the land for ranching activities, commercial pineapple cultivation, the construction of Lānaʻi City, and subsequent erosion from land clearing and ungulates roaming unchecked.

A few traditional Hawaiian sites have been documented north of the current project area on the periphery of the pineapple fields and in areas that were not under commercial cultivation. They include truncated traditional Hawaiian fire pits (1430-1634 A.D.) with associated artifacts on the ground surface, a burial and associated cultural deposit, and a traditional Hawaiian habitation site near the location of the Lānaʻi Sporting Clays shooting range. Secondarily deposited traditional Hawaiian artifacts lacking integrity of location and truncated fire pit remnants are the typical site traditional Hawaiian ite types documented in the pineapple fields of the island.

Otherwise, the majority of the sites and items of archaeological interest that have been documented nearby are associated with the early settlement period, the ranching-era, the construction and growth of Lānaʻi City, and commercial pineapple production on the island.

Parcel 2 is located within the largest and most extensive of these sites, the Koʻele District, SIHP #-1004, a large ranch-era historic property with a long and complex history of documentation spanning from the 1970's to the present day. SIHP #-1004, consists of the former location of the Lanai Ranch Headquarters (circa 1870s-1951), five preserved ranch-era structures and a reservoir in and around the Four Seasons Resort at Kōʻele, and subsurface feature components consisting of two large refuse pits and nine additional feature components including refuse pits and scatters, a charcoal and ash concentration, an imu pit, a possible cistern, and a drywell and cesspool dating to the 1970's. The five historic structures that once contributed to the significance of the site have since been moved, two of which were present in the current project area.

Although much of the current project area has been plowed for the cultivation of pineapple, the potential to encounter traditional Hawaiian firepit remnants, secondarily deposited traditional Hawaiian artifacts, and historic-era infrstructure and deposits still exists. The areas north and east of the project area hold the greatest potential for pre-contact and historic-era deposits as they were not under pineapple cultivation. The areas south and west of the project area were under commercial pineapple cultivation for many years and are likely to have minimal potential for intact archaeological deposits.

Field Results

Fieldwork for this project was conducted on August 19th, 20th, and 21st, 2019 by Nathan DiVito, B.A with the assistance of Cheleigh Carabal, Jesse Del Rosario, Taz Del Rosario, Stacy Miyamoto, Benjamin Ostrander, Kamaka Primacio, Kaleo Ropa and Uiʻlani Stokes from the Culture and Historic Preservation Division of Pūlama Lānaʻi. Fieldwork was conducted under the general supervision of Rosanna Thurman, M.A. (principal investigator), who has a Master's Degree in Applied Archaeology and over 12 years of experience in archaeological field inventories, historic property assessments, and site evaluations in Hawaiʻi. The investigation required approximately 20 person-hours to complete. Fieldwork for this project was performed under the archaeological permit number 19-22, issued to Honua Consulting by the SHPD/DLNR in accordance with HAR Chapter 13-282.

4.1 Methodology

The archaeological field inspection consisted of a 100% pedestrian inspection of two project parcels totaling 66.7 acres. It included a visual inspection for any constructed surface architecture and observation of the ground surface and soil exposures for artifacts and/or exposed cultural deposits. Parcel 1 measured 57.2 acres. The pedestrian survey of Parcel 1 consisted of the traversal of numerous transects across the property performed by 9 individuals and spaced at approximately 10-meter (m) intervals (Figure 27).

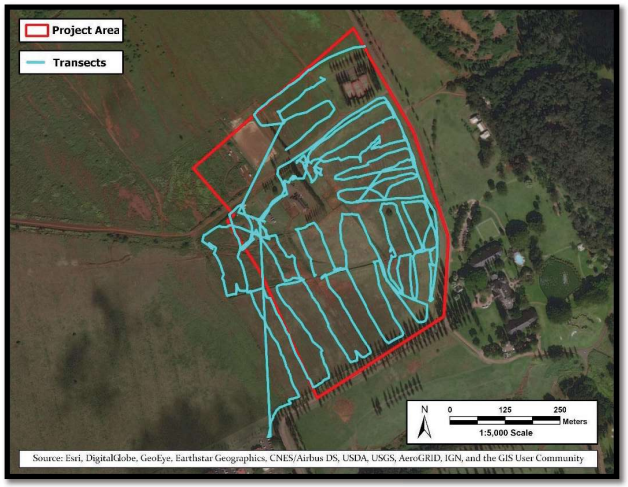

Figure 27. Aerial Photograph Showing Survey Transects across Parcel 1 (Orthoimage 2011)

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Parcel 2 measured 9.5 acres. The pedestrian survey of Parcel 2 was conducted on the accessible portion of the 9.5-acre property, which measured approximately 3.25 acres. The pedestrian survey was conducted by seven individuals walking generally north-south trending transects across Parcel 2, spaced at approximately 10-meter (m) intervals (Figure 28).

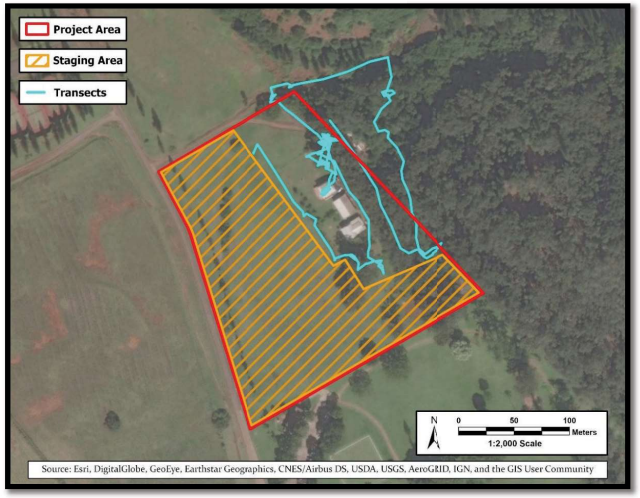

Figure 28. Aerial Photograph showing Survey Transects Across Parcel 2 and showing the Portion of the Project Area Used as a Construction Staging Area (Orthoimage 2011)

During the field survey of Parcel 1, the base of an exposed fire pit feature (SIHP #50-40-98-1988, Feature Honua 1) was sampled in bulk. During lab analysis the sample was screened and prepared for wood taxa identification. The charcoal was placed within labeled aluminum foil pouches inside a labeled plastic bag. The sample was sent to the International Archaeological Research Institute, Inc. (IARII) in Honolulu. The analysis conducted by IARII viewed the charcoal samples under magnification of an epi-illuminating microscope and compared the samples with anatomical characteristics of known woods in the Pacific Islands Wood Collection at the Department of Botany, University of Hawai‘i, and published descriptions. The results of the charcoal analysis are summarized in the Lab Results section of this report and the full report is provided as Appendix E.

One charcoal sample recovered from the bulk sample of SIHP # -1988 and identified to specific plant species was selected for Accelerator Mass Spectrometer (AMS) radiocarbon dating. The sample was sent to Beta Analytic, Inc. of Miami, Florida. Results of the analysis is provided as Appendix F. The resulting conventional radiocarbon age was calibrated into calendar ages AD/BC using the OxCal Calibration Program, version 4.3, developed by the Oxford Radiocarbon Accelerator Unit (ORAU) and available as share-ware over the Internet.

Traditional Hawaiian artifacts were collected from Parcel 1. No historic artifacts were collected. Collected artifacts were washed, photographed, tabulated, and analyzed for material type, morphology, and use characteristics by Nathan DiVito, B.A. All artifacts were analyzed on Lāna‘i island and will be permanently stored at the Lāna‘i Culture and Heritage Center.

4.2 Parcel 1

The field inspection of Parcel 1 consisted of a 100% pedestrian survey of a 57.2 acre parcel. Two potential historic properties were documented during the investigation and include a fire pit remnant (SIHP # -1988, Feature Honua 1) and a plantation-era pineapple road remnant with an associated earthen drainage ditch remnant (Feature Honua 2). A bulk charcoal sample (Acc #3) was collected from SIHP # -1988 (fire pit) for analysis. Additionally, four secondarily deposited artifacts were collected from three separate locations within Parcel 1 and included a basalt flake (Acc #1), an ‘opihi shell (Acc #2), and two pieces of volcanic glass (Acc #4 and 5). The location of documented features and secondarily deposited artifacts collected during the investigation are shown in Figure 29.

The majority of Parcel 1 is currently being utilized for horse pasture and the operations of the Lāna‘i Ranch Equestrian Center at Kō‘ele. Keōmuku Highway defines the southern and eastern boundary of Parcel 1, with the Four Seasons Resort located across the highway to the east. The northern and western boundary of the area are bordered by former pineapple fields. Kānepu‘u Highway cuts east to west across the northern portion of Parcel 1 and provides access to the Kō‘ele Stables which serve as the parking, offices, and operations center for tourist trail riding activities (Figure 30). The area around the stables is landscaped with pine trees and various fences. A series of sewer manholes runs across the property from the stables south towards Lāna‘i City.

Other developed locations along Kānepu‘u Highway within Parcel 1 include tennis courts in the northeast corner, a graded area with a sandy arena across the road from the stables, and an area with shipping containers for growing small amounts of supplemental feed for the animals. The remainder of Parcel 1 has been divided by wooden and metal fences into several grazing paddocks for donkeys, goats, and horses.

During the early- to mid-twentieth century, the project area was used for ranching and a cluster of buildings were located within the center of Parcel 1. The structures are depicted on a 1938 map of Lanai Ranch (see Figure 9) and are identified as including a slaughterhouse, hide house, feed storage area, an unnamed building, and pig pens. No evidence of these structures was documented during the current field inspection. Following use of the parcel as ranching land it was cultivated and used for commercial pineapple production which appears to have destroyed any evidence of the former structures. Figure 13 shows the entirety of Parcel 1 under pineapple cultivation.

The topography of the area is slightly undulating and slopes gently from east to west with approximately 100 ft of elevation decline from one side to the other. Parcel 1 was completely free of vegetation except in intentionally landscaped areas and the northwest corner where a thick growth of secondary vegetation was present (Figure 31). The vegetation in that area was typical of abandoned pineapple fields and consisted of Christmas berry (*Schinus terebintifolius*), lantana (*Lantana camara*), and various grasses and shrubs. Black plastic fragments and broken pieces of plastic Polyvinyl Chloride (PVC) piping were observed on the surface throughout the area.

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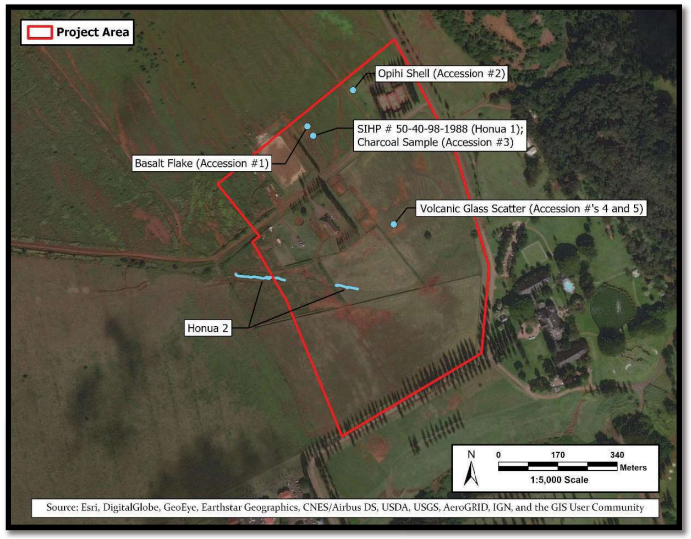

Figure 29. Aerial Image of Parcel 1 showing Locations of Newly Identified SIHP # -1988 (fire pit), Honua 2 (old plantation road remnants), and secondarily deposited artifacts (Acc #1, 2, 4, and 5) (Esri Imagery)

Figure 30. Photo of the Stables Building and Associated Landscaping Looking Southeast

Figure 31. Overview Photo of Vegetation in the Northwest Corner of Parcel 1 Looking East

The portion of Parcel 1 north of Kānepu'u Highway was surveyed separately from the pasture. A set of three tennis courts for the Four Seasons Resort was present in a built up and graded area in the northeast corner of Parcel 1. Landscaping and an associated parking lot were present nearby. A large borrow pit which very likely provided the material for the area was located near the southwestern corner of the tennis courts along the road. A single large 'opihi shell (Acc. #2) was collected from the slope to the west of the tennis courts. Further west, a graded pad was observed in the area adjacent to the animal arena. A pile of imported sand was present in the northern portion of the graded area and provides the sand for the arena and the animal shelters in the pasture. A graded area with sets of shipping containers was immediately to the west of the arena. Numerous push piles of dirt and rubbish were observed in this area and in the vegetated area in the northwest corner of Parcel 1.

4.2.1 SIHP #50-40-98-1988 (Feature Honua 1)

SIHP # -1988 consists of a fire pit remnant recorded on the surface in the west profile of an eroded cut bank created by grading for a pad north of the arena (Figure 32). The fire pit has been truncated by the plow zone and black plastic fragments indicative of pineapple cultivation were observed on the ground surface nearby. The feature measured approximately 80 cm x 60 cm and has almost completely eroded away. A basin shaped depression with charcoal at the base was all that remained. A single small rounded basalt cobble was observed in the flat graded pad below. A single bulk sample of charcoal (Acc #3) was collected from the base of the fire pit for analysis.

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Figure 32. Overview Photo of Feature Honua 1 (SIHP # -1988) Looking Northeast, Note the Black Plastic Fragments on the Surface and Landscaped Area Around the Tennis Courts in the Background

The pasture lands that make up much of Parcel 1 have been divided into paddocks by a series of wood and metal fences with gates (Figure 33). A gravel access road off of Kēomuku Highway across the street from the Four Seasons Resort at Kō‘ele leads through the paddocks to the stables. The paddocks with smaller animals have wooden shelters with imported sand inside for animals to bed down on. The pasture lands have sparse ground level vegetation from animal grazing and were heavily eroded down to the underlying saprolitic “hard pan” soil (Figure 34). The only exception was along the western edge of Parcel 1 where black plastic indicative of the plow zone was encountered (Figure 35). Ground visibility in the pasture was variable but averaged around 60 percent. A remnant plantation-era roadway with associated remnant earthen ditch (Feature Honua 2) and a scatter of secondarily deposited charcoal with two pieces of volcanic glass (Acc. #4 and 5) in a 5 m diameter area were the only things of archaeological note documented in the pasture.

Figure 33. Overview of the Central Portion of Parcel 1 from the Eastern Fence Boundary Looking South

Figure 34. Overview Photo Showing the Southern Boundary and Southwestern Corner of Parcel 1, Note the Heavy Erosion, Ground Visibility, and the Wooden Tripods Marking the Location of Sewer Manholes

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Figure 35. Photo of Erosion and Black Plastic Fragments along the Central Western Boundary of Parcel 1 Looking East

4.2.2 Feature Honua 2

Feature Honua 2 is a discontinuous plantation-era pineapple road remnant with associated earthen drainage ditch remnant that runs across the central portion of Parcel 1 (see Figure 29). The feature correlates with a pineapple road depicted on a 1953 aerial map of the Kō‘ele area which shows the vast majority of the project area under commercial pineapple cultivation (see Figure 13). Two heavily eroded sections of the drainage ditch and roadway were documented. The first eastern-most section measured 42 meters long. Crushed basalt road base course material was observed to a depth of 60 cm (2 ft.) in the northern face of the drainage. A piece of historic brick was observed in the rock fill. The ditch still functions as a drainage for this portion of the pasture and is heavily eroded (Figure 36). The ditch width varied between 1 m to 3.5 m wide and had a maximum depth of 1 meter. The distance of the in-filled area between the two ditch sections was approximately 120 meters.

The western-most section of the pineapple road and drainage ditch measured 100 m long and extended outside the western boundary of Parcel 1. Broken concrete chunks and crushed basalt road base material were observed along the edge and in the northern profile of the ditch (Figure 37). This section also acts as a modern drainage for the pasture and has been modified in two areas with plastic corrugated culvert pipes covered with soil. This section is also considerably eroded and measures approximately 3 meters wide with a maximum depth of 1 meter. A low 2 meter long area with five basalt cobbles set into concrete is present outside Parcel 1 at the western termination of the ditch remnant. It was stacked a single course, measured 30 cm in height, and was present in the north profile of the ditch. Plantation pineapple roads with drainages of this type are typical features documented in the abandoned pineapple fields of Lāna‘i.

Figure 36. Photo of the eastern section of Feature Honua 2 looking west, note the road base material for the pineapple road in the northern profile of the ditch

Figure 37. Photo of the western section of Feature Honua 2 looking west, note the concrete chunks near the scale bar in the photo

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4.3 Parcel 2

The field inspection of Parcel 2 consisted of a 100 percent pedestrian survey of the accessible portion of a 9.5 acre property, which measured approximately 3.25 acres (Figure 38). The inaccessible portion was an active construction staging area which includes the previously surveyed portion of Parcel 2 (Dye and Maly 2017b). The staging area is delineated by temporary fencing and has been graded to accommodate shelters, temporary offices and construction equipment. Three potential historic properties were documented in the northwestern corner of Parcel 2 during the investigation and include a historic-era semi-circular rock wall planter (Feature Honua 3), a modern stockpile of rounded imu (fire pit) stones (Feature Honua 4), and a plantation-era mortar and cobble slab with poured concrete (SIHP #50-40-98-1989, Feature Honua 5). Additionally, two historic houses (Structures C and D) of the Kō‘ele District were identified. No artifacts or samples of any kind were collected during the field inspection of Parcel 2.

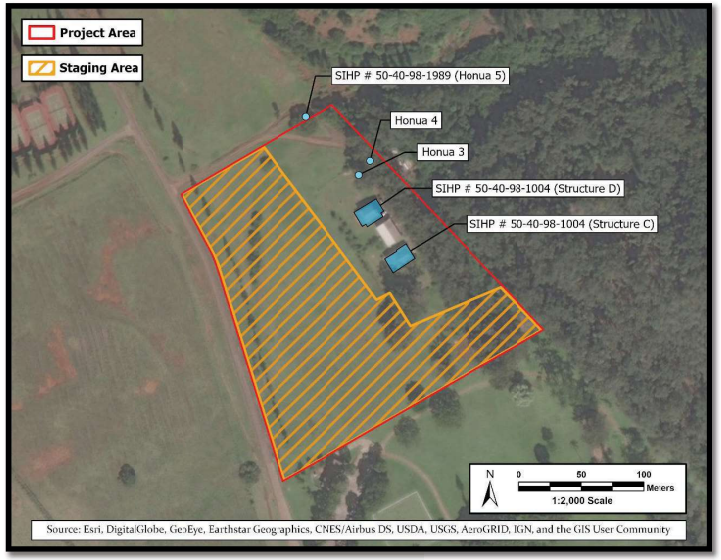

Figure 38. Aerial image showing Parcel 2, features documented during the surface survey, components of SIHP # -1004, and the portion of the project area currently being used as a construction staging area

Figure 39. Photo of the construction staging and laydown area showing the northwestern portion of Parcel 2 looking west

Figure 40. Overview photo of road and vegetation along the eastern boundary of Parcel 2 looking east

The majority of Parcel 2 is currently being utilized as a construction staging and laydown area for on-going construction at the Four Seasons Resort at Kō‘ele (Figure 39). Keōmuku Highway defines the western boundary of Parcel 2, a dirt road defines the northern boundary, and the manicured Four Seasons Resort property is located to the south. The eastern boundary of Parcel 2 has been vegetated with slope stabilizing introduced species including *Eucalyptus* sp., Strawberry guava (*Psidium cattleyanum*) and various other unidentified trees (Figure 40).

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As shown on a 1953 aerial photo of the Kō‘ele area, most of the area surveyed had been under pineapple cultivation (see Figure 13). The ground surface was relatively flat and free of vegetation. The lack of black plastic fragments on the surface indicates that the plow zone soil of the area has been removed either by grading or erosion. Visibility in the vegetated area and along the road was good and averaged approximately 60 percent. The vegetated area along the road in the eastern portion of Parcel 2 had boulders and push piles from grading and clearing of the road and nearby area. Dumped wood and rubbish were also observed in the area. Numerous dump piles and push piles of soil and rock were observed near the roads in the northeastern portion of Parcel 2. A modern wooden and metal fence was present on the southern side of the vegetated area and comprised the southern boundary of the area surveyed (Figure 41).

Figure 41. Modern fence along the southern boundary of the vegetated portion of Parcel 2 looking southwest

As shown on a 1938 map of Lanai Ranch, the area was also used for ranching (see Figure 9). A road on the map is still present, running along the eastern boundary of Parcel 2 and providing access to two houses relocated to the project area which are identified as Structures C and D, components of the Kō‘ele District (SIHP # -1004).

4.3.1.1 Kō‘ele District (SIHP # -1004), Structures C and D

Two houses present on Parcel 2 were originally documented during the 1974 Statewide Inventory of Historic Places as components of the Kō‘ele District, SIHP # -1004, which consisted of the former location of the Lanai Ranch Headquarters (circa 1870s-1951) and a group of four ranch-era buildings (Appendix C). Structures C and D were dismantled and moved from the Maunalei Sugar Company camp at Keomuku to Kō‘ele, just east of the current project area, sometime between 1902-1917 as a result of a lack of water in the Keomuku area (Kaschko 1986:16, Hammatt 1988:35). Since that time, most all of the buildings comprising the Kō‘ele

District have been moved again. The two houses present in the eastern portion of Parcel 2 were identified as Lanai Ranch Company houses and office buildings that were moved to their current location within Parcel 2 in the late 1980’s during the development of the Four Seasons Resort.

The structures of the Kō‘ele District were documented by Kaschko (1986). The southern house within Parcel 2 is referred to as Structure C of SIHP # -1004 (also referred to as the George Ohashi house). The northern house within Parcel 2 is referred to as Structure D of SIHP # -1004 and was described as one of the Lanai Ranch Company offices and later as the “Pablo Libero” house. It was noted in the Kaschko (1986:17) study that while at the Lanai Ranch, to the east of the current project area, Structure C was used for some time as the chief cowboy (kauila) house and Structure D was the ranch office which once had an addition that served as a store with a post office.

The current survey found Structure C to be occupied with tenants (Figure 42) and Structure D serves as the office for the Culture and Historic Preservation Division of Pūlama Lāna‘i (Figure 43). Both of the houses show signs of modern modifications. The yards of the homes have manicured lawn grass with ornamentals and garden around the outside. Photos of the homes in their original condition and location are presented in Appendix D.

Figure 42. Overview photo of Structure C of SIHP # -1004 looking west

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Figure 43. Overview photo of Structure D of SIHP # -1004 looking east

Three additional features were documented in the northeastern corner of Parcel 2. They are all historic and/or modern in age and are associated with use of the area for housing and commercial pineapple cultivation.

4.3.1.2 Feature Honua 3

Feature Honua 3 is a historic semi-circular rock planter wall located in the northwestern portion of Parcel 2 along the access road to the houses (Figure 44). It measures 3.6 m long and is constructed of rounded and crushed basalt cobbles and broken concrete fragments piled two to three courses high. Rocks and concrete from the wall are scattered to the north in a 2-3 meter area. Six square basalt blocks measuring 35 x 30 x 15 cm are present in a 2.3 m area at the base of the wall. Fragments of mortar were observed in the wall, one of which included a portion of a date reading "196*", with presumably the last digit of a year missing (Figure 45). The date and concrete chunks make it likely that the wall is historic or modern in age.

Figure 44. Overview photo of a historic circular planter rock wall, Feature Honua 3 looking northeast

Figure 45. Possible date on mortar found within Feature Honua 3

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4.3.1.3 Feature Honua 4

Feature Honua 4 is a modern stockpile of rounded basalt cobble imu (fire pit) stones situated in a row of Eucalyptus trees between the two roadways leading to and from the houses on the property (Figure 46 and Figure 47). The feature consists of 100 or more basalt cobbles present in a 3.3 m long x 2.2 m wide area. Saw cut wood, modern plywood, brick, concrete, rusty metal, and a large piece of corrugated sheet metal were observed in and around the feature. A mixed soil ash material was observed on the eastern side of the feature. Following documentation of the feature, Lānaʻi resident and cultural historian Albert Morita was consulted for his knowledge of the project area. He claims that the stones are a stockpile of imu stones used for cooking activities for the people that lived in this area of Kōʻele. The modern rubbish and mixed soil and ash in and around the feature seem to support that claim.

Figure 46. Overview photo of Feature Honua 4 looking southeast

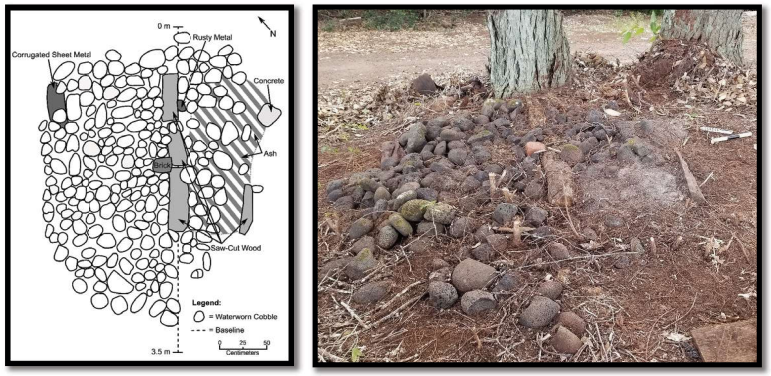

Figure 47. Plan view map and photo of Feature Honua 4

SIHP #50-40-98-1989 (Feature Honua 5)

SIHP # -1989 is a plantation-era mortar and cobble slab with poured concrete located along the northern boundary of Parcel 2 (Figure 48). It is situated in an area of push piles, dumped soil, and rubbish between the two roads in the northeastern portion of Parcel 2. It is comprised of broken and squared basalt cobbles stacked two courses high with a height of 20 cm. The exposed portion of the feature measured 2.35 m long, however, it is possible it extends further. Due to the soil and dump pile of stones on top of the feature its total size was assessed based on observable portions only. The foundation is not present on the 1938 map of the area (see Figure 9). The feature is located just outside the cultivated area shown on the 1953 aerial photo of the Kōʻele area (see Figure 13). The foundation is likely a remnant of infrastructure related to commercial pineapple cultivation.

Figure 48. Photo of SIHP # -1989 (Feature Honua 5), a plantation-era crushed basalt and mortar foundation looking northeast

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Lab Results

A total of 4 secondarily deposited artifacts (Acc #1-2 and 4-5) and a single bulk charcoal sample (Acc #3) were collected from Parcel 1 during the field inspection.

5.1 Collected Artifacts

All collected artifacts were assessed as traditional Hawaiian based on their material type and physical attributes which are typical of traditional Hawaiian assemblages. The artifacts were found within a previously plowed and cultivated field, therefore, their context has been disturbed and the artifacts are considered to be secondarily deposited. Artifacts consisted of a single large ‘opihi (limpet, *Cellana talcosa*) shell (Acc #1), a basalt flake (Acc #2), and two pieces of volcanic glass (Acc #4 and #5) (Figure 49 and Table 11).

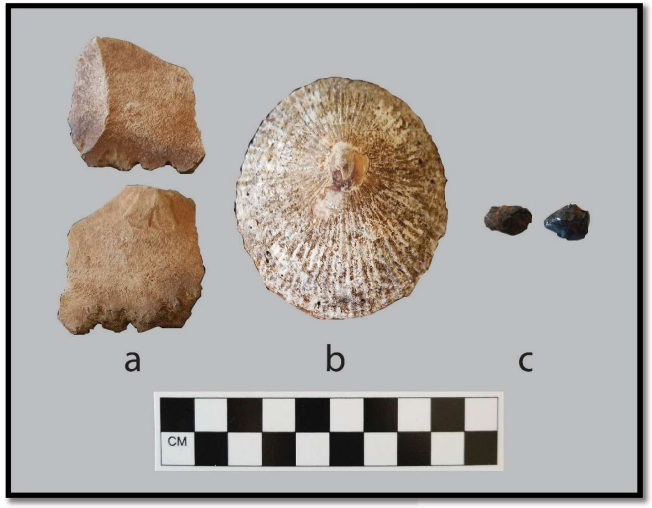

Figure 49. Artifacts collected from Parcel 1: a) Acc #2, basalt flake [both sides]; b) Acc #1, ‘opihi shell; c) Acc # 4, volcanic glass flake; Acc #5, volcanic glass nodule

Table 11. Lab Catalogue of Artifacts and Samples Collected from the Surface of Parcel 1

Acc #	Bag #	Material/Type	Description	Count	Measurements (L x W x Th) (Cm)	Weight (g)
1	1	Basalt Flake	Secondary flake	1	4.64 x 4.26 x 0.82	20.5
2	2	Marine shell	‘Opihi shell (*Cellana talcosa*)	1	7.01 x 6.22 x 0.27	30.8
3	3	Wood charcoal	Bulk sample from base of fire pit	1	N/A	27.0
4	4	Volcanic glass flake	Secondary flake	1	1.45 x 0.95 x 0.33	0.5
5	4	Volcanic glass nodule	Unmodified volcanic glass nodule	1	1.36 x 1.09 x 0.78	1.2

The ‘opihi (*Cellana talcosa*) shell (Acc #2) collected from Parcel 1 was found on the slope just to the west of the tennis courts. It is the largest of the four species of endemic Hawaiian limpet shells and grows to a maximum size of 90 mm (3.5 in.) in diameter (Kay 1979:44-46). They are typically found and collected along basalt shorelines of the islands of Hawai‘i, Lāna‘i, Maui, Moloka‘i, and occasionally Kaua‘i below the tide mark in depths ranging from 0.5 to 3 m (1 to 10 ft.). Interestingly, the giant ‘opihi is known as the ‘opihi ko‘ele in Hawaiian. Traditionally ‘opihi were used as a food item and as tools for scraping activities. The collected shell appears to be of antiquity and has some cracking around the edges, possibly from use. However, due to the condition of the shell and its secondary location on the plowed ground surface, use-wear on the object was not able to be definitively identified.

The basalt flake (Acc #1) was collected from near SIHP # -1988 (fire pit remnant) and along the same cut bank within Parcel 1. The flake is a fine-grained basalt secondary flake with a distinct bulb of percussion. No evidence of use-wear was observed. The two pieces of volcanic glass (Acc #4-5) were found together in a heavily eroded area of the horse pasture in association with a scatter of secondarily deposited charcoal on the surface. One piece is a secondary flake with no use-wear and the other is an unmodified volcanic glass nodule.

A single bulk charcoal sample (Acc #3) was collected from the base of the fire pit remnant, SIHP # -1988, encountered along a cut bank in the northeastern portion of Parcel 1. It was collected to facilitate wood species identification and subsequent radiocarbon dating.

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5.2 Wood Species Identification Results

A single bulk charcoal sample (Acc #3) was collected from the base of the fire pit remnant, SIHP # -1988, encountered along a cut bank in the northeastern portion of Parcel 1. It was collected to facilitate wood species identification and subsequent radiocarbon dating. Wood species identification and dating of fire pits in the pineapple fields of the island have yielded important data on the approximate time of fire pit use, pre-contact climate and vegetation, and traditional Hawaiian wood selection and fire building practices (Dye and Maly 2016 and DiVito et al. 2019b).

The bulk sample was sent to Dr. Jennifer Huebert at the Wood Identification Laboratory at the International Archaeology Guam office for wood species identification. A total of 76 individual pieces of charcoal were analyzed and consisted of 71 pieces of naio wood (*Myoporum sandwicense*), 3 ‘ilima (*Sida* sp.) twigs, and two pieces of indeterminate hardwood (Table 12). The full results of the wood species identifications are presented in Appendix E.

Both of the identified species are indigenous to the Hawaiian Island chain. Naio is classified as a shrub or small tree and is found in diverse habitats throughout the Hawaiian Islands, except Kaho‘olawe. Naio leaf buds, fruit, and leaves were used for medicinal purposes (Chun 1994:23-25, 73-74 cited in Bishop Museum 2019). The wood was utilized for house posts, fish net gauges, and for torches as it burns well and long (Krauss 1993:35, 56, Lamb 1981:127 cited in Bishop Museum 2019). Naio is also referred to as false sandalwood or bastard sandalwood, as it is a fragrant wood and was harvested in lieu of sandalwood when the supply became low.

‘Ilima is classified as a shrub and is typically found along coasts in rocky or sandy habitats or in low, open, dry and mesic forests throughout the main Hawaiian Islands (Wagner et al. 1990:897-898 cited in Bishop Museum 2019). The plant is common in traditional Hawaiian archaeological assemblages and had a range of uses including building material, floor coverings, rough basketry, and use for medicinal purposes.

Table 12. Wood Species Identifications from SIHP # -1988

WIDL No.	Taxon	Count	Weight (g)	Comment
1915-1	*Sida* sp.	1	0.05	Twig
1915-2	Indeterminate hardwood	1	0.06	Twig
1915-3	Indeterminate hardwood	1	0.17	Twig
1915-4	*Sida* sp.	1	0.07	Twig
1915-5	*Sida* sp.	1	0.18	Twig
1915-6	*Mypoporum sandwicense*	71	17.91	

5.3 Radiocarbon Dating Results

The purpose of radiocarbon dating was to estimate the approximate time period the fire pit identified in Parcel 1, SIHP # -1988, was used. A short lived taxon was selected to minimize the effects of in-built age. A single piece of ‘ilima (*Sida* sp.) wood charcoal (WIDL 1915-4) from SIHP # -1988 was selected for accelerator mass spectrometry (AMS) dating at the Beta Analytic laboratory. The laboratory returned a calibrated age range of A.D. 1458-1530 (41.2%) and A.D. 1538-1635 (54.2%) with the approximate age of the fire pit at 350 +/- 30 B.P. (Appendix F). The results are shown in Table 13. Our own calibration of the radiocarbon results was conducted with Oxcal v. 4.3 and the northern hemisphere atmospheric calibration curve. The 95% highest posterior density (HPD) region for the age of the fire pit was the same as the broad range returned by the laboratory, A.D. 1458-1635.

The age range from SIHP # -1988 matches that of the calibrated ages of Features A and B of SIHP # -1984 (fire pits) (Beta-445749 and Beta-532829), A.D. 1430-1630 and A.D. 1447-1634 repectively, located approximately 500 meters to the north (Dye and Maly 2016, DiVito et al. 2019b). This further supports traditional use of the area in the 15th and 16th centuries with fire pits fueled entirely with native woods, likely from the surrounding area. The uniformity of the time range for the fire pits may be indicative of a permanent habitation site somewhere in the surrounding vicinity.

Table 13. Table Listing Radiocarbon Dating Results

Sample	Provenience	Identified Analyzed Material	Measured Age	Radiocarbon Results (AMS Dating)
WIDL 1915-4	SIHP # -1988	‘ilima (*Sida* sp.)	350 +/- 30 B.P.	A.D. 1458-1530 (41.2%) and A.D. 1538-1635 (54.2%)

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Summary

This project was completed at the request of Pūlama Lānaʻi. This literature review and field inspection was completed for two parcels of land totaling 66.7 acres, including a 57.2 acre property (Parcel 1) and a 9.5-acre property (Parcel 2). Both properties are privately owned by Lānaʻi Resorts, LLC.

Background research on the island of Lānaʻi, Kamoku, and Paomaʻi Ahupuaʻa was compiled, including moʻolelo of wahi pana, historical events, land tenure, ranching operations, the pineapple industry, and history of central Lānaʻi. Previous archaeological studies within the area and within 1.5 miles of Parcels 1 and 2 were also compiled and presented. The study found that Parcel 2 is located entirely within the Koʻele District, SIHP #-1004, which consists of the former location of the Lanai Ranch Headquarters (circa 1870s-1951), five preserved ranch-era structures and a reservoir in and around the Four Seasons Resort at Kōʻele, and subsurface feature components consisting of two large refuse pits and nine additional features that include refuse pits and scatters, a charcoal and ash concentration, an imu pit, a possible cistern, and a drywell and cesspool dating to the 1970's. It should be noted that none of the former Ranch Headquarters buildings currently exist on the property, rather, all buildings that contribute to the significance of the site have been moved from their original locations.

Additionally, the study found that the majority of the sites that have been documented in the area are associated with the early settlement period and the ranching-era. Other historic properties are associated with the construction and growth of Lānaʻi City and commercial pineapple production on the island. Three traditional Hawaiian sites have been previously documented outside of the pineapple fields to the north of the current field inspection area.

Historically, the area was used for ranching activities and were almost entirely under commercial pineapple cultivation except for a small vegetated area along the eastern boundary of Parcel 2. It is very likely that these activities removed any evidence of sites or deposits present in the area. The types of sites typically found in the pineapple fields on the island of Lānaʻi include surface scatters of secondarily deposited traditional Hawaiian artifacts, bases of fire pits that have been truncated by the plow zone, and historic remnants of ranching and plantation-era infrastructure. They were the anticipated site types for this field inspection. The areas to the north and east of the project area hold the greatest potential for pre-contact and historic-era deposits as they were not under pineapple cultivation. The areas south and west of the project area were under commercial pineapple cultivation for many years and are likely to have minimal potential for intact archaeological deposits.

The archaeological field inspection conducted for Parcel 1 included a 100 percent pedestrian survey of the 57.2 acre property. Two potential historic properties were documented (SIHP # -1988 and Feature Honua 2) and four secondarily deposited traditional Hawaiian artifacts were collected from three separate locations. A fire pit remnant, (SIHP # -1988, that has been truncated by the plow zone was documented in the north central portion of Parcel 1. The bulk sample was analyzed for wood species identification, finding it contained only shrubs indigenous to Hawaiʻi (naio and ʻilima). AMS radiocarbon dating of a sample of ʻilima (*Sida* sp.) wood charcoal ranged from A.D. 1458-1635. A plantation-era pineapple road and ditch (Feature Honua 2) were documented in remnant condition and have been heavily modified. Artifacts collected during the project were found within formerly plowed pasture and are therefore considered secondarily

deposited. However, it is very likely the artifacts are associated with traditional activities and use of the area, as exampled by the presence of the remnant fire pit (SIHP # -1988).

The archaeological field inspection conducted for Parcel 2 included a 100 percent pedestrian survey of 3.25 acres of the larger 9.5 acre property. The remaining portion of Parcel 2 was actively being used as a construction staging area, a portion of which had been the subject of a previous archaeological inventory survey (Dye and Maly 2017b). During the current survey, three potential historic properties were documented in the northeastern corner of Parcel 2. The potential historic properties include a historic semi-circular rock wall planter (Feature Honua 3), a historic scatter of rounded basalt cobble imu stones (Feature Honua 4), and a plantation-era mortar and cobble foundation (SIHP # -1989, Feature Honua 5). In addition, two previously identified components of the Kōʻele District, SIHP #-1004, were observed in the eastern portion of Parcel 2. The Kōʻele District buildings were previously documented as Structures C and D during an archaeological survey for the Koele Hotel which later became the Four Seasons Resort at Kōʻele (Kaschko 1986).

This archaeological investigation is not an archaeological inventory survey (AIS), however, this report was written using standards outlined within HAR 13-276 for AIS studies and is intended to assist with historic preservation efforts within the field investigation area.

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Significance Assessments and Recommendations

6.1 Significance Assessments

Historic properties are assessed based on age, integrity, and significance. Qualifying historic properties must typically be at least fifty years old. Integrity of a historic property is based on the location, design, setting, materials, workmanship, feeling, and association. As outlined in HAR 13-284-6 (Evaluation of significance), a historic property must meet one of five broad categories to be significant (Criteria a-e). The significance of each historic property is assessed for:

a Historic property reflects major trends or events in the history of the state or nation.

b Historic property is associated with the lives of persons significant in our past.

c Historic property is an excellent example of a site type, period, method of construction, or work of a master.

d Historic property has yielded or may be likely to yield information important in prehistory or history.

e Historic property has cultural significance to an ethnic group, including, but not limited to, religious structures, burials, traditional cultural properties, cultural practices, and/or beliefs important to the groups history and cultural identity.

Table 14 lists all features identified in the project area, initial assessments of integrity and significance, and recommendations. SIHP #50-40-98-01988 (Feature Honua 1) is a fire pit feature located along an eroded cut bank in the northern central portion of Parcel 1. The fire pit feature is assessed as having integrity of location and as being significant under Criterion d for yielding data important to the understanding of traditional Hawaiian use of the interior of Lānaʻi.

Feature Honua 2, a pineapple road remnant with associated drainage ditch, dates from the plantation era and cuts diagonally across Parcel 1. It is present on a 1953 aerial map of the Kōʻele area showing the vast majority of the project area under pineapple cultivation. The road remnant and associated ditch are heavily eroded. The bottom section has been modified as a modern drainage for the bottom portion of the pasture and has been modified with two modern plastic culvert pipes. Roads and drainages of this type are typical of the pineapple fields of Lānaʻi. The pineapple road remnant with associated drainage ditch is determined to lack integrity and significance.

The three potential historic properties (Features Honua 3-5) documented in the northeastern corner of Parcel 2 are historic and/or modern in age, in poor condition, and located in heavily modified and graded areas. Feature Honua 3 (historic planter) contains basalt stones and historic to modern rubbish and does not likely contain valuable research data. Feature Honua 4 (historic to modern stockpile of imu stones) is currently being added to and removed at will by local residents

and does not likely contain valuable research data. Therefore, it is recommended that Features Honua 3 and 4 do not retain integrity or significance. SIHP #50-40-98-01989 (Feature Honua 5) (historic concrete and stone foundation) is presumably largely buried by soil. It is unknown whether the foundation is intact within its original location or if it may yield valuable data.

An assessment of the integrity and significance of the two previously identified components of the Kōʻele District (SIHP #-1004, Structures C and D) are beyond the scope of this study. The assessment of these structures must be conducted by a qualified architectural historian. Therefore, it is recommended that an architectural assessment be completed for the two structures.

Table 14. Table Listing Identified Features in the Current Field Investigation Area, Initial Assessments of Integrity and Significance, and Recommendations

Feature	Type	Integrity	Significance	Recommendation
SIHP # - 1988 (Honua 1)	Traditional Hawaiian Fire pit	Location	Criterion d	No Further Work
Honua 2	Historic Road Remnant and Drainage Ditch	None	None	No Further Work.
Honua 3	Historic Planter	None	None	No Further Work
Honua 4	Historic to Modern Stockpile of Imu Stones	None	None	No Further Work
SIHP # - 1989 (Honua 5)	Historic Concrete and Stone Slab	Unknown	Unknown	Document Further During Future Archaeological Monitoring
Structure C	Lanai Company office/ Pablo Libero house/ current office for the Culture and Historic Preservation Division of Pūlama Lānaʻi; Kōʻele District (SIHP # - 1004)	Unknown	Unknown	An architectural assessment is recommended
Structure D	Lanai Company office/ George Ohashi house, Kōʻele District (SIHP # -1004)	Unknown	Unknown	An architectural assessment is recommended

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6.2 Conclusion

Rezoning of Parcels 1 and 2 will not affect the newly or previously recorded sites located within the project area. Therefore, in accordance with HAR 13-284-7, this study supports a project effect determination of "no historic properties affected".

The fire pit feature (SIHP #50-40-98-01988), historic road remnant and drainage ditch (Feature Honua 2), historic planter (Feature Honua 3), and the historic to modern stockpile of imu stones (Feature Honua 4) have been analyzed and reported, no further work is recommended for these features.

Due to the presence of a traditional Hawaiian intact fire pit remnant, traditional Hawaiian artifacts, and the presence of historic ranching and plantation-era infrastructure, it is likely that future construction activities may disturb additional traditional and/or historic sub-surface deposits and artifacts. Potential deposits that could be encountered include, but are not limited to, additional fire pit remnants, traditional human burials, animal burials, historic trash pits, and/or buried ranching and plantation-era infrastructure. Therefore, the following mitigation measures are recommended for Parcels 1 and 2:

- An archaeological monitoring program shall be adhered to in order to document any additional surface and/or sub-surface deposits and artifacts that may exist within Parcels 1 and 2;
- Within Parcel 2, Structures C and D of the Kōʻele District (SIHP # -1004) should be assessed by a qualified architectural historian; and
- Within Parcel 2, SIHP # -1989 (Feature Honua 5) (historic concrete and stone slab) should be further documented and assessed for integrity and significance during archaeological monitoring.

A literature review of the entire proposed Kōʻele Project District is included in this report for reference and review. As no approvals for built structures or activities that would include ground disturbance in the Project District are being sought at this time within the corresponding boundary amendment, no additional archaeology work in the larger project district is being recommended at this time. In the event that additional permits, approvals, and/or authorizations are sought, a separate archaeological review will be conducted specific to that project and project area.

This archaeological investigation is not an archaeological inventory survey (AIS), however, this report was written using standards outlined within HAR 13-276 for AIS studies and is intended to assist with historic preservation efforts for the proposed zone change to the parcels.

References Cited

Beckwith, Martha. W

1940 *Hawaiian Mythology*. Yale University Press, New Haven, CT.

Bishop Museum

2019 Hawaiian Ethnobotany Online Database. Bishop Museum, Honolulu, Hawaiʻi. Accessed at < http://data.bishopmuseum.org/ethnobotanydb/ethnobotany.php?b=list&o=1 >.

Borthwick, Douglas F., and Hallett H. Hammatt

1989 *Survey of the Proposed Waialua Multi-Family Housing Subdivision (TMK 2nd Div. 4–9–08:12, 13), Lānaʻi Island, Hawaiʻi*. Cultural Surveys Hawaii, Kailua, HI. Prepared for M and E Pacific, Inc.

Bowser, George

1880 *The Hawaiian Kingdom Statistical and Commercial Directory and Tourists Guide*. Bowser and Co., Honolulu, HI.

Brown, J.F. and M.D. Monsarrat

1878 Lanai Government Survey map. Registered Map Number 1394. On file at Hawaiʻi Land Survey Division, Honolulu, Hawaiʻi.

Conley-Kapoi, A. and Hallett H. Hammatt

2005 *An Archaeological Assessment for a 7.673-Acre Parcel at Kamoku, Kamoku Ahupuaʻa, Lāhaina District, Island of Lānaʻi, TMK: (2) 4–9–014:018*. Cultural Surveys Hawaii, Wailuku, HI. Prepared for Castle and Cook Resorts, LLC.

Cordova, A., Colleen P.M. Dagan, Tonya L. Lee-Greig, R.R. Hill, and Hallett H. Hammatt

2010 *Cultural Impact Assessment for the Lānaʻi Community Health Center Project, in Kamoku Ahupuaʻa, Lāhaina District, Lānaʻi Island, TMK: (2) 4–9–006:011 (Draft ed.)*. Cultural Surveys Hawaii, Wailuku, HI. Prepared for Wilson Okamoto Corporation.

Creed, Victoria, J. Hammatt, and Hallett H. Hammatt

2000 *Archaeological Inventory Survey of a 50-acre Hawaiian Home Lands Parcel, Lanai Island, Hawaii*. Cultural Surveys Hawaii, Kailua, HI. Prepared for Townscape, Inc.

Dagan, Colleen P.M. and Hallett H. Hammatt

2009 *Archaeological Monitoring Report for the 2 Million Gallon Water Tank Installation, Lānaʻi City, Kamoku Ahupuaʻa, Lāhaina District, Lanaʻi Island, TMK: (2) 4–9–18: por 003*. Cultural Surveys Hawaii, Wailuku, HI. Prepared for Castle and Cooke Resorts.

Dagan, Colleen P.M., Tonya L. Lee-Greig and Hallett H. Hammatt

2009d *Cultural Impact Assessment For the Lanaʻi High and Elementary School Expansion Parcel, Kamoku Ahupuaʻa, Lāhaina District, Lānaʻi Island, TMK: (2) 4–9–002:058 por.* Cultural Surveys Hawaii, Wailuku, HI. Prepared for the Hawaii State Department of Education.

Dagan, Colleen P.M., Tonya L. Lee-Greig, R. Hill, and Hallett H. Hammatt

2009a *Cultural Impact Assessment For the Lānaʻi Senior Center Project: Demolition of Existing Structure and Construction of New Facility, in Kamoku Ahupuaʻa, Lāhaina District, Island*

REF-162

of Lānaʻi, TMK: (2) 4–9–06:6. Cultural Surveys Hawaii, Wailuku, HI. Prepared for Gerald Park, Urban Planner.

2009b *Cultural Impact Assessment for the Lānaʻi City Affordable Housing Project, Kamoku Ahupuaʻa, Lāhaina District, Lanai Island, TMK: (2) 4–9–002: 058 (por.) and portions of (2) 4–9–014:001, 009, and 011.* Cultural Surveys Hawaii, Wailuku, HI. Prepared for Munekiyo & Hiraga, Inc.

DiVito, Nathan J., Kepā Maly, Rosanna M.R. Thurman, and Trisha K. Watson

2019a *Archaeological Assessment for the Proposed Relocation of Lānaʻi Community Gardens, Kamoku Ahupuaʻa, Lāhaina District, Lānaʻi Island, TMK: [2] 4-9-014:001 por.* Honua Consulting LLC., Honolulu, HI.

2019b *Archaeological Inventory Survey Addendum for Proposed Lānaʻi Well #7, Paomaʻi Ahupuaʻa, Lāhaina District, Lānaʻi Island, TMK: [2] 4-9-002:001 por.* Honua Consulting LLC., Honolulu, HI.

DiVito, Nathan J., Kepā Maly and Thomas S. Dye

2015 *Archaeological Inventory Survey of the Miki Basin Pipeline Replacement, the Central Services Warehouse, and a Multi-Purpose Field, Lands of Kaunolū and Kamoku, L āhaina District, Lānaʻi Island TMK: (2) 4–9–002:001 and TMK: (2) 4–9–014:011.* T. S. Dye & Colleagues, Archaeologists, Honolulu, HI. Prepared for Pūlama Lānaʻi.

2017 *Archaeological Inventory Survey for the Lānaʻi Pine Sporting Clays Renovation Project, Land of Paomaʻi, Lāhaina District, Lānaʻi Island TMK: (2) 4–9–002:001 por.* T. S. Dye & Colleagues, Archaeologists, Honolulu, HI. Prepared for Pūlama Lānaʻi.

Dye, Thomas S.

2018a *Archaeological Data Recovery Plan for Sites 50-40-98-1980 and 50-40-98-1981 Within the Miki Basin 200 Acre Industrial Development, Lands of Kalulu and Kaunolū, Lāhaina District, Lānaʻi Island, TMK: (2) 4-9-002:061.* T. S. Dye & Colleagues, Archaeologists, Honolulu, HI. Prepared for Pūlama Lānaʻi.

2018b *Archaeological Monitoring Report for Growponics Greenhouses (Hydroponics Facility) Project, Land of Kamoku, Lāhaina District, Lānaʻi Island, TMK: (2) 4-9-002:061.* T. S. Dye & Colleagues, Archaeologists, Honolulu, HI. Prepared for Pūlama Lānaʻi.

Dye, Thomas S., Kepā Maly

2015 *Archaeological Assessment for Helistop Pads, Land of Paomaʻi and Pālāwai, Lāhaina District, Lānaʻi Island TMK: (2) 4-9-002:001 por.* T. S. Dye & Colleagues, Archaeologists, Honolulu, HI. Prepared for Pūlama Lānaʻi.

2016 *Archaeological Inventory Survey for the Proposed Lānaʻi Well #7, Land of Paomaʻi, Lāhaina District, Lānaʻi Island TMK: (2) 4-9-002:001 por.* T. S. Dye & Colleagues, Archaeologists, Honolulu, HI. Prepared for Pūlama Lānaʻi.

2017a *Archaeological Assessment Survey for the Proposed Kōʻele Adventure Center, Land of Kamoku, Lāhaina District, Lānaʻi Island TMK: (2) 4-9-018:003.* T. S. Dye & Colleagues, Archaeologists, Honolulu, HI. Prepared for Pūlama Lānaʻi.

2017b *Archaeological Assessment Survey for a Proposed Construction Stockpiling and Staging Area, Land of Kamoku, Lāhaina District, Lānaʻi Island TMK: (2) 4-9-002:001 por.* T. S. Dye & Colleagues, Archaeologists, Honolulu, HI. Prepared for Pūlama Lānaʻi.

2017c *Archaeological Inventory Survey for the Proposed Improvements at the Four Seasons Resort Lānaʻi, Kōʻele, Land of Kamoku, Lāhaina District, Lānaʻi Island TMK: (2) 4-9-002:001 por.* T. S. Dye & Colleagues, Archaeologists, Honolulu, HI. Prepared for Pūlama Lānaʻi.

2018a *Archaeological Inventory Survey for the Proposed Hōkū-ao 201-H Residential Project, Land of Kamoku, Lāhaina District, Lānaʻi Island, TMK (2) 4-9-002:061 por., TMK: (2) 4-9-014:001 por., TMK: (2) 4-9-014:009 por., and TMK: (2) 4-9-014:011 por.* T. S. Dye & Colleagues, Archaeologists, Honolulu, HI. Prepared for Pūlama Lānaʻi.

2018b *Archaeological Assessment for the Proposed Kōʻele Sculpture Garden, Land of Mahana, Paomaʻi, Kamoku, Kalulu, Lāhaina District, Lānaʻi Island, TMK: (2) 4-9-018:002 por. and 003 por.* T. S. Dye & Colleagues, Archaeologists, Honolulu, HI. Prepared for Pūlama Lānaʻi.

2018c *Archaeological Assessment Report for the Proposed Lānaʻi Cemetery, Land of Paomaʻi, Lāhaina District, Lānaʻi Island, TMK: (2) 4-9-002:001 por.* T. S. Dye & Colleagues, Archaeologists, Honolulu, HI. Prepared for Pūlama Lānaʻi.

Ellis, William

1963 *Journal of William Ellis*. Advertiser Publishing Company, Honolulu, HI.

Emory, Kenneth P.

1924 Lānaʻi fieldnotes. On file at SHPD, Kapolei, HI.

1969 *The Island of Lanai: A Survey of Native Culture*. Bishop Museum Press Reprint Edition. Bernice Pauahi Bishop Museum Bulletin Number 12, Honolulu, HI, Bishop Museum Press.

Estioko-Griffin, Agnes

1988 *Report on an exposed burial and subsurface deposit along Keomoku Road (Site 40-LA-1528) Mahana, Lanai, TMK 4-9-02: por. 1*. On file at SHPD, Kapolei, HI.

Foote, Donald E., E. L. Hill, S. Nakamura and F. Stephen

1972 *Soil Survey of the Islands of Kauaʻi, Oʻahu, Maui, Molokai and Lanai, State of Hawaii*. U.S. Department of Agriculture, U.S. Government Printing Office, Washington, D.C.

Forbes, Cochran

1984 *The Journals of Cochran Forbes: Missionary to Hawaii, 1830-1864.* Hawaiian Mission Children's Society.

Fornander, Abraham

1916 *Fornander Collection of Hawaiian Antiquities and Folk-Lore.* Vol. 4, Part 1 of *Memoirs of the B. P. Bishop Museum.* Bishop Museum Press, Honolulu, HI. Translations revised and illustrated by Thomas G. Thrum.

1973 *An Account of the Polynesian Race: Its Origins and Migrations.* Charles E. Tuttle Company, Rutland, VT.

REF-163

1996 *Ancient History of the Hawaiian People to the Times of Kamehameha I.* Mutual, Honolulu, HI.

Frederickson, E. M.

2002 *Summary field report of an archaeological inventory survey of the Lanaʻi Police Station parcel, Lanaʻi [TMK: (2) 4–9–14:1 (Por.) and 11 (Por.)].* Letter to Munekiyo & Hiraga, Inc.

Giambelluca, T.W., Q. Chen, A.G. Frazier, J.P. Price, Y.-L. Chen, P.-S. Chu, J.K. Eischeid, and D.M. Delparte

2013 Rainfall Atlas of Hawaiʻi, Interactive Map. Geography Department, University of Hawaiʻi-Mānoa. Accessed at <http://rainfall.geography.hawaii.edu/interactivemap.html>.

Gibson, Walter Murray

1866 Sketch map of Lanai, May 23, 1866. Hawaiʻi State Archives, Honolulu, HI.

1873 Sketch map of Lanai, May 26, 1873. Hawaiʻi State Archives, Honolulu, HI.

1874 Sketch map of Lanai, April 15, 1874. Hawaiʻi State Archives, Honolulu, HI.

Hammatt, Hallett H.,

1987 *Archaeological reconnaissance of 24.6 acres for proposed Lalakoa III subdivision, Lanai City, Lanai, (TMK 4–9–2 Lot 768)*. Letter to Lanai Company on file at SHPD, Kapolei, HI.

1996 *Archaeological Inventory Survey of a 14.9-Acre Parcel in the Ahupuaʻa Paomaʻi, Island of Lanai, (TMK 4–9–2:1 por.)*. Cultural Surveys Hawaii, Kailua, HI.

Hammatt, Hallett H. and Douglas F. Borthwick

1988 *Archaeological Investigation at Lalakoa, Kamoku, Lānaʻi (Lālākoa III Subdivision).* Cultural Surveys Hawaii, Kailua, HI. Prepared for Lanai Company.

1989 *Archaeological Reconnaissance Survey of the Proposed Koʻele Golf Course, Koʻele Single Family Housing, Queens Multi-Family, and Waialua Annex Subdivision, Lānaʻi Island Hawaiʻi*. Cultural Surveys Hawaii, Kailua, HI. Prepared for M and E Pacific.

1990 *Addendum Report for Additional Archaeological Survey at the Proposed Koʻele Golf Course, Lanai*. Cultural Surveys Hawaii, Kailua, HI. Prepared for Lanai Co. Inc.

1993a *Archaeological Data Recovery and Monitoring of the Kōʻele Golf Course Parcel, Island of Lānaʻi*. Cultural Surveys Hawaii, Kailua, HI. Prepared for Lanai Company.

1993b *Archaeological Inventory Survey for a Proposed Kōʻele Waste Water Treatment Project, Kamoku, Lānaʻi*. Cultural Surveys Hawaii, Kailua, HI. Prepared for Lanai Company.

Hammatt, Hallett H., Douglas F. Borthwick, David W. Shideler, and K. Nakamura

1988 *Archaeological Investigations of the Ranching Era at Koele, Lanai*. Cultural Surveys Hawaii, Kailua, HI. Prepared for M and E Pacific.

Hammatt, Hallett H. and Rodney Chiogioji

1992 *Archaeological Investigations at the Waialua Single-Family Housing Project Area, Lanai City, Lāhaina District, Lanai*. Cultural Surveys Hawaii, Kailua, HI.

1993 *Archaeological Inventory Survey of a 1-Acre Parcel in the Ahupuaʻa Paomaʻi, Island of Lanaʻi*. Cultural Surveys Hawaii, Kailua, HI.

Hammatt, Hallett H. and David W. Shideler

2004 *Archaeological Inventory Survey of the Lower West Slope of Niniwai Hill, Lanai.* Prepared for Castle and Cooke Resorts, LLC. Cultural Surveys Hawaii, Kailua, HI. Prepared for Castle and Cooke, LLC.

Handy, E.S.C, and Handy, E.G.

1972 *Native Planters in Old Hawaiʻi: Their Life, Lore & Environment.* Bishop Museum Press. Honolulu, HI.

Hawaiian Pineapple Company Ltd.

1927 *What It Means to Grow Big in Twenty-Five Years: Sixty Pictures and a Few Paragraphs That Tell a Story and Mark a 25th Birthday, December Fourth 1901 to December Fourth 1926*. Hawaiian Pineapple Company, Ltd., Honolulu, HI.

Hawaiʻi Territorial Survey Division

1929 Map of the Island of Lanai.

Hawaiʻi TMK Service

Tax Map Key [2] 4-9-002. On file at Hawaiʻi TMK Service, 222 Vineyard Street, Suite 401, Honolulu, Hawaiʻi.

Henke, L.A.

1929 *A Survey of Livestock in Hawaii.* Number 5 in Research Publications. University of Hawaii, Honolulu, HI.

Hill, R.R., Tonya L. Lee-Greig, Colleen P.M. Dagan, and Hallett H. Hammatt

2009 *Archaeological Literature Review and Field Inspection Report for a Proposed Senior Center at Lānaʻi City, Kamoku Ahupuaʻa, Lāhaina District, Lānaʻi Island, TMK: (2) 4–9–006:006.* Cultural Surveys Hawaii, Wailuku, HI. Prepared for Gerald Park, Urban Planner.

Hommon, Robert J.

1974 *Comments on the Archaeological Sites on the Island of Lanai*. Anthropology Department, B. P. Bishop Museum., Honolulu, HI.

Kālakaua, David

1990 *The Legends and Myths of Hawaii: The Fables and Folk-Lore of a Strange People.* Mutual Publishing. Honolulu, HI.

Kamakau, Samuel M.

1992 *Ruling Chiefs of Hawaii*. Kamehameha Schools Press. Honolulu, HI.

Kaschko, Michael W,

1986 *Archaeological Reconnaissance Survey and Preliminary Subsurface Testing of Koele Hotel Project Area, Island of Lanai, Hawaii*. International Archaeological Research Institute, Honolulu HI. Prepared for M & E Pacific, Inc.

Lānaʻi Culture & Heritage Center Collection

1929 Photo of Lānaʻi City. Army Air National Guard Photo, October 23, 1929. Lānaʻi Culture & Heritage Center Collection, Lānaʻi City, HI.

REF-164

1938 Lanai Ranch Layout Map, Lanai T.H., Hawaiian Pineapple Company Limited, November 1938. Lānaʻi Culture & Heritage Center Collection, Lānaʻi City, HI.

1947a Lanai Ranch map, September 24, 1947. Lānaʻi Culture & Heritage Center Collection, HI.

1947b HAPCo Lanai map, October 1947. HAPCo Collection, Land Tenure, Places, and Events in Paomaʻi, Lānaʻi Culture & Heritage Center Collection, HI.

1953 Aerial photograph of the Kōʻele area. Lānaʻi Culture & Heritage Center Collection, HI.

Lee-Greig, Tonya L. and Hallett H. Hammatt

2005 *Field Inspection Letter Report for the Court Housing Project in Lanai City, Island of Lanai, Hawaii.* Cultural Surveys Hawaii, Wailuku, HI. Prepared for Castle and Cooke Resorts, LLC.

2006 *Archaeological Monitoring Report for the Lower West Slope of Niniwai Hill, Lanaʻi City, Kamoku Ahupuaʻa, Lānaʻi, TMK [2] 4–9–18: Por. 3.* Cultural Surveys Hawaii, Wailuku, HI. Prepared for Castle and Cooke Resorts, LLC.

2007 *Preservation Pan for Kihamanienie Church, Sites 50-40-98-1946 and -1947, Lanaʻi City, Kamoku Ahupuaʻa, Lānaʻi, TMK [2] 4–9–18: Por. 3.* Cultural Surveys Hawaii, Wailuku, HI. Prepared for Castle and Cooke Resorts, LLC.

2009a *An Archaeological Assessment Report for the Lanaʻi High and Elementary School Expansion Parcel, Kamoku Ahupuaʻa, Lāhaina District, Lānaʻi Island, TMK: (2) 4–9–002:058 por.* Cultural Surveys Hawaii, Wailuku, HI. Prepared for the Hawaii State Department of Education.

2009b *An Archaeological Inventory Survey Report for the Proposed Lanaʻi City Affordable Housing Project, Kamoku Ahupuaʻa, Lāhainā District, Lānaʻi Island, TMK (2) 4–9–002:058 and portions of (2) 4–9–014:001, 009, 011.* Cultural Surveys Hawaii, Wailuku, HI. Prepared for Munekiyo & Hiraga, Inc.

Madeus, J.K., Tonya L. Lee-Greig and Hallett H. Hammatt

2010 *An Archaeological Literature Review and Field Inspection Report for a Proposed Lānaʻi Community Health Center in Lānaʻi City, Kamoku Ahupuaʻa, Lāhaina District, Lānaʻi Island TMK: (2) 4–9–006: Portion of 011.* Cultural Surveys Hawaii, Wailuku, HI. Prepared for Wilson Okamoto Corporation.

Mills, Peter, Pūlama Lima, Lokelani Brandt, Jennifer Kahn, Patrick Kirch and Steven Lundblad

2018 *Paired Geochemical and Technological Analyses of Basalt Adze Debitage at the Hālawa Dune Site, Molokaʻi Island, Hawaiʻi.* Archaeology in Oceania. Vol. 53, Issue 2, pgs. 78-91.

Pali, Noa

1852 Letter from Noa Pali to Keoni Ana, Minister of the Interior, dated August 26, 1852. Hawai'i State Archives, Honolulu, Hawai ʻi.

Pfennig, K.A., Tonya L. Lee-Greig and Hallett H. Hammatt

2014 *An Archaeological Monitoring Report for the Six Classroom Building, Phase I of the Master Plan for Lānaʻi High and Elementary School, Kamoku Ahupuaʻa, Lāhainā District, Lānaʻi Island, TMK: (2) 4–9–014:002 por.* Cultural Surveys Hawaii, Wailuku, HI. Prepared for CDS International.

Pietrusewsky, Michael

1988 *Human Remains Found Along Keomoku Road, Lanaʻi.* On file at SHPD, Kapolei, HI.

Pukui, Mary K., Samuel H. Elbert, and Esther T. Mookini

1974 *Place Names of Hawaii*. University of Hawaii Press, Honolulu, HI.

Smith, J.G. and H.E. Dougherty

1926 *Lanai: "The Pineapple Kingdom"*. Pamphlet containing reprints of newspaper articles published in Honolulu Advertiser, February 1–2, 1926.

Stearns, H.T.

1940 Geology and Ground-Water Resources of the Islands of Lanai and Kahoolawe, Hawaii. Number 6 in *Bulletin of the Division of Hydrography*. Division of Hydrography, Territory of Hawaii, Honolulu, HI.

Tomonari-Tuggle, Myra J. and David H. Tuggle

1999 *Archaeological Survey of Two Demonstration Trails of the Hawaii Statewide Trail and Access System: Kaiolohia-Kahue Coastal Trail, Island of Lānaʻi, Hawaiʻi.* International Archaeological Institute Inc., Honolulu, HI.

Tuggle, David H.

1991 *The Northwestern Uplands of the Island of Lanai: Archaeological Inventory Survey of Five Locations Proposed for U.S. Marine Helicopter Landing Zones*. International Archaeological Institute Inc., Honolulu, HI.

U.S Department of Agriculture, Natural Resources Conservation Service

2001 Soil Survey Georgraphic (SSURGO) database for Island of Lanai, Hawaii (hi970). U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.ncgc.nrcs.usda.gov/products/datasets/ssurgo/. (last accessed March 2005).

U.S. Geological Survey

2013 U.S. Geological Survey 7.5 minute topographic map, Lānaʻi North Quadrangle. Available at USGS Information Services, Box 25286, Denver, Colorado.

2011 U.S. Geological Survey Orthophoto, Lānaʻi Island Quadrangle. Available at USGS Information Services, Box 25286, Denver, Colorado.

Walter E. Wall

1903 Working Sheet, Portion of Lanai, Hawaiian Islands. Registered map 2227.

Wright, John C.

1974 Hawaii Register of Historic Places Form for Koele District. Department of Land and Natural Resources, Division of State Parks, State of Hawaiʻi, Honolulu.

REF-165

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Appendix A Māhele Data for Kamoku Ahupua'a

The following are translations done by Kepā Maly of documents associated with Māhele claims in Kamoku Ahupua‘a. The kinds of documents included are LCA claims documented in the Native Register, Native Testimony, Foreign Testimony, Māhele Award Book, and Royal Patents. Reproductions of the original documents which are in Hawaiian are included in accompanying figures. The descriptions of the claims included in the Māhele documents offer a glimpse into the kinds of activities that occurred in Kamoku.

Helu 2686: The Claim of Oleloa

Helu 2686 (see also Helu 367)

Claimant Oleloa (w.)

Location Kaumalapau at Kamoku

Recorded at Lāhaina

Date January 8, 1848

Native Register

Greetings to you John Ii and Kaauwai, and the Commissioners who quiet claims.

I hereby tell you of my several land claims from the King. Here are the names of my lands: Puunau in Lāhaina; Kalama II [Kona]; Kaumalapau [Lanai]; and Kanoni [Kau]. I have five lands, and my residency is from the King. Therefore, I provide before you, my document to you, that you, the Commissioners who quiet claims may see. Here also is my lot at Puunau, and I give to you my document, Kolopapela Kaau [wai] and Richards to quiet by your hands. Aloha to you with peace.

Done by me, Oleloa, Widow. (Figure 50).

REF-166

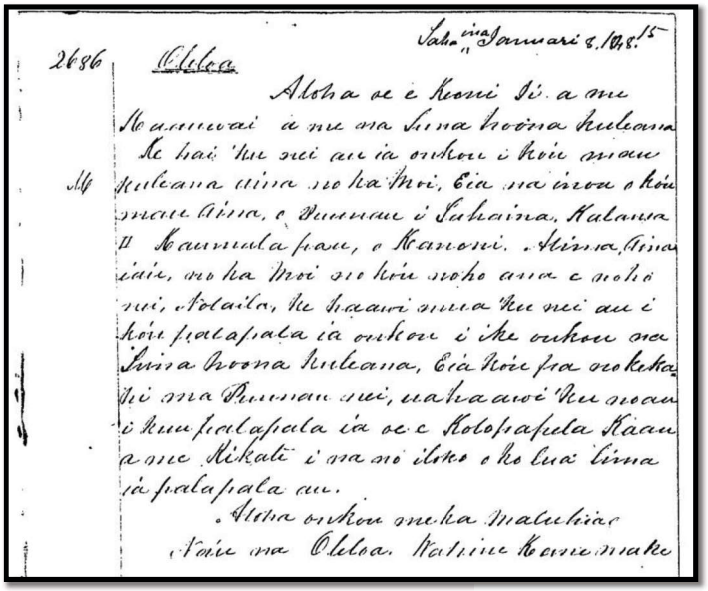


Figure 50. Helu 2686 of Oleloa. *Source*: Native Register Volume 6:15

Helu 4145: The Claim of Kauihou

Helu 4145

Claimant Kauihou

Location Palawai & Kamoku

Native Testimony

Kawaaiki, Sworn. I now his parcel of land at Keomuku, Palawai. 1 Parcel of land. 1 Parcel, a house site & cultivated land.

The boundaries are thus. Mauka, land of the Konohiki. Kaena, land of Naoopu. Makai, the beach. Kamaiki, land of Hohopa.

He received this Parcel from Hua in the time of Kamehameha II, and has dwelt there peaceably to this time. No one has objected. Naoopu, Sworn. The words above are all true. My knowledge is the same. (Figure 51)

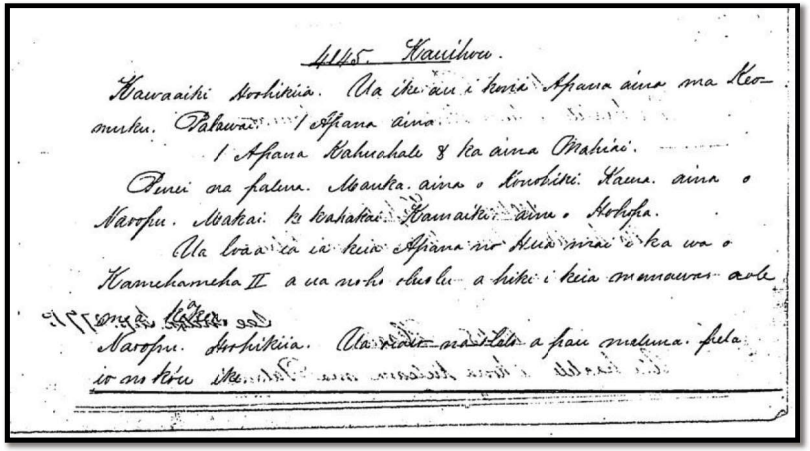


Figure 51. Helu 4145 of Kauihou. *Source*: Native Testimony 13:282

Helu 6833: The Claim of Kaaiai

Helu 6833

Claimant Kaaiai

Location Kalulu & Kamoku

Native Testimony

Pali, Sworn. I know his Parcels of land at Kalulu, Lanai. 3 Parcels of land in the ili below.

Parcel 1. 1 moku mauu in the ili of "Ahupau."

Parcel 2. 1 moku mauu in the ili of "Elialii."

Parcel 3. House lot [illegible – in the ili of] Kamoku

Parcel 1. The boundaries are thus. Mauka, land of Keie. Kamaiki, Ahupuaa of "Kaunolū." Makai, land of Kaukapala. Kaena, Ili land of Kamoku.

REF-167

Parcel 2. The boundaries are thus. Mauka, land of Maawe. Kamaiki, land of Konohiki. Makai, the same. Kaena, Ili of Kapano.

Parcel 3. The boundaries are thus. Mauka and all about, land of Konohiki.

He received these Parcels of land from his parents in the year 1840, and his parents received them from Daniela Ii. He has resided there peaceably to this time. No one has objected.

Kawaaiki, Sworn. All the words above are true. My knowledge is the same. (Figure 52)

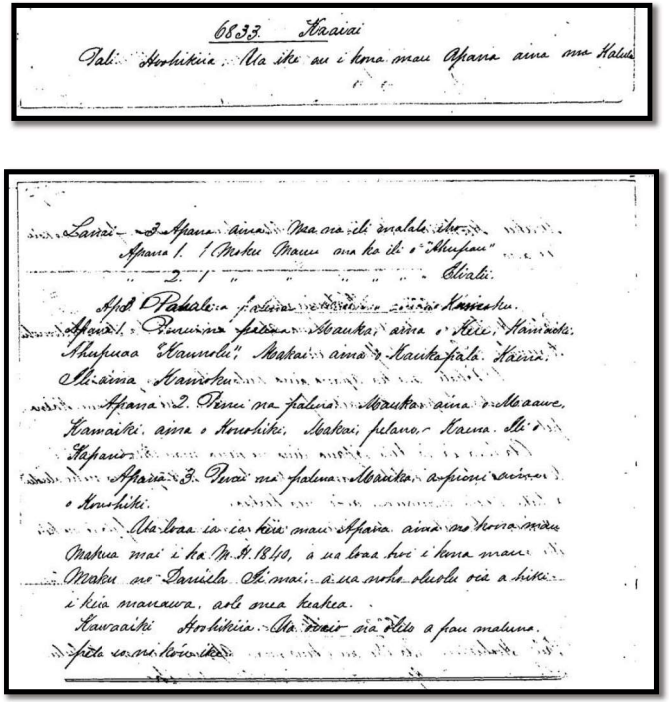


Figure 52. Helu 6833 of Kaaiai. *Source*: Native Testimony 13:272-273

Māhele Award Book

There in the Ahupuaa of Kalulu, Island of Lanai. Three Parcels.

Parcel 1. There in the Ili of Ahupau… [metes and bounds] … 6 Acres. 3 Roods, 10 Rods…

Parcel 2. There in the Ili of Elialii… [metes and bounds] … 7 Acres, 3 Roods, 17.8 Rods…

Parcel 3. There in the ili of Kamoku… [metes and bounds] … 5 Acres, 3 Roods, 2 Rods… (Figure 53)

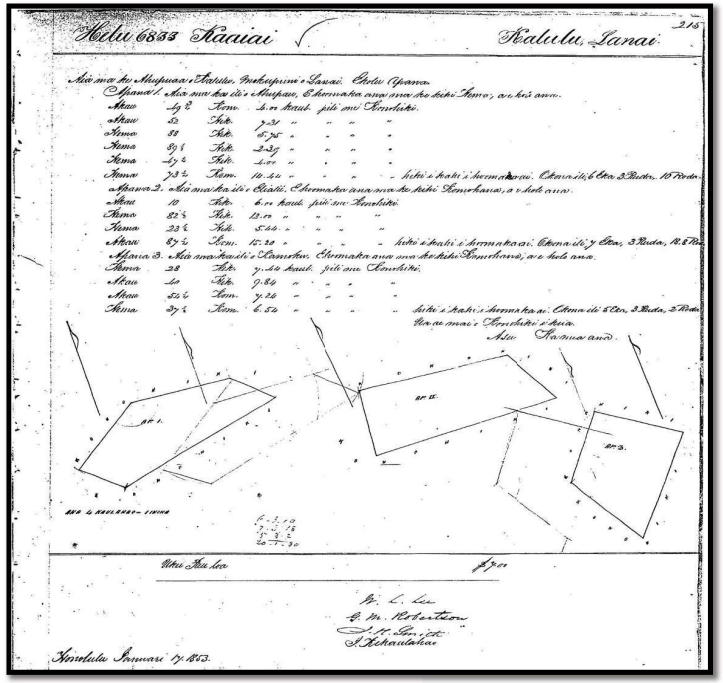


Figure 53. Helu 6833 of Kaaiai. *Source*: Māhele Award Book 7:215

Helu 8556: The Claim of Kaauwaeaina

Helu 8556

Claimant Kaauwaeaina

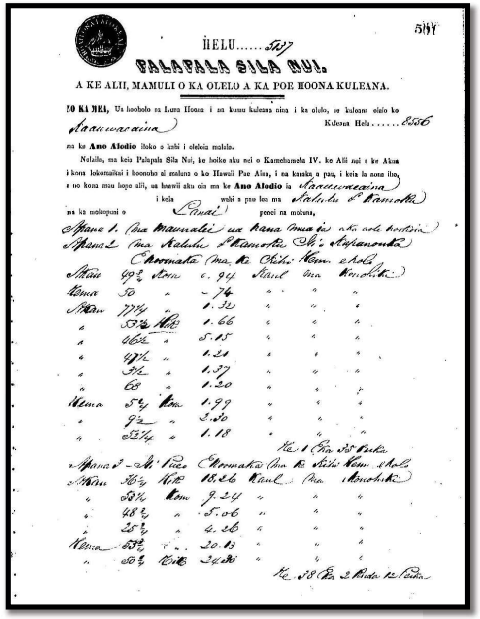
Location Maunalei, Kalulu, and Kamoku

REF-168

Recorded at Lanai

Date February 7, 1848

Royal Patent 5137 (Figure 54 and Figure 55)



HELU.....5137

PALAPALA SILA NUI.

A KE ALII, MAMULI O KA OLELO A KA POE HOONA KULEANA.

Figure 54. Page 1 of 2. Royal Patent 5137 of Kaauwaeaina. Source: Book 20:501-502

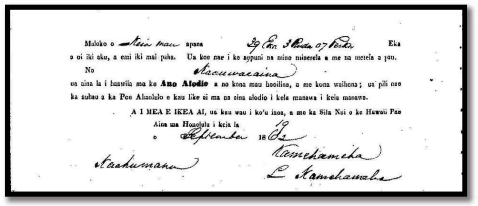


Figure 55. Page 2 of 2. Royal Patent 5137 Kaauwaeaina. Source: Book 20:501-502

Native Register

Greetings Commissioners who Quiet Land Titles. I have three loi (taro pond fields) at Maunalei.

Here are other claims of mine, several moku mauu at Kalulu, and a pauku at Pueo. By Kaauaeaina. (Figure 56)

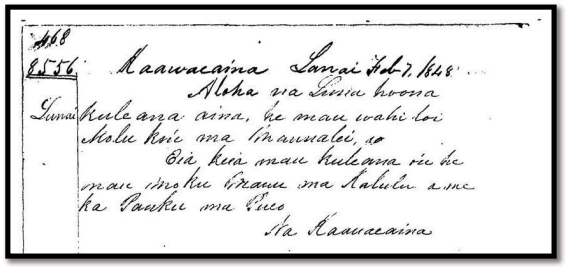


Figure 56. Helu 8556 of Kaauwaeaina. *Source*: Native Register 6:468

Native Testimony

Kawaaiki, Sworn. I know his parcels of land on Lanai. They are in the ili and Ahupuaa below. 3 parcels.

Parcel 1. 3 loi kalo (taro pond fields) in the ili of Ainaiki, Maunalei Ahupuaa.

Parcel 2. 1 moku mauu, in the ili of Kapano uka, Kalulu Ahupuaa.

Parcel 3. 1 Pauku land in the ili of Pueo, Kamoku Ahupuaa.

Par. 1. The boundaries are thus. Mauka, my land. Kaena and all about, land of Konohiki.

Par. 2. The boundaries are thus. Mauka and all about, land of Konohiki.

Par. 3. The boundaries are thus. Mauka and all about, land of Konohiki.

He received Parcel 1 from Kawaaiki in the year 1844. Par. 2 from his parents in the time of Kamehameha II. Par. 3 from his parents in the time of Kamehameha I. He has resided there peacably to this time. No one has objected.

I, Kaliliaumoku, Sworn. All the statements above are correct. My understanding is exactly like that as spoken by Kawaaiki. (Figure 57)

Māhele Award Book

There in the Ahupuaa of Kalulu & Kamoku, Lanai.

Parcel 2. There in the ili of Kapanouka. . . [metes and bounds] … 1 Acre, 0 Roods, 35 Rods

REF-169

Parcel 3. There in the ili of Pueo. . . [metes and bounds] . . . 38 Acres, 2 Roods, 12 Rods. (Figure 58)

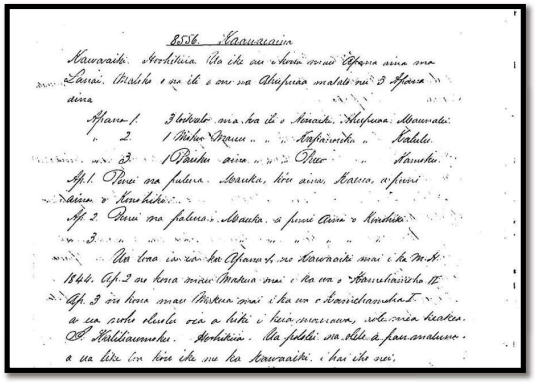


Figure 57. Helu 8556 of Kaauwaeaina. *Source*: Native Testimony 13:265

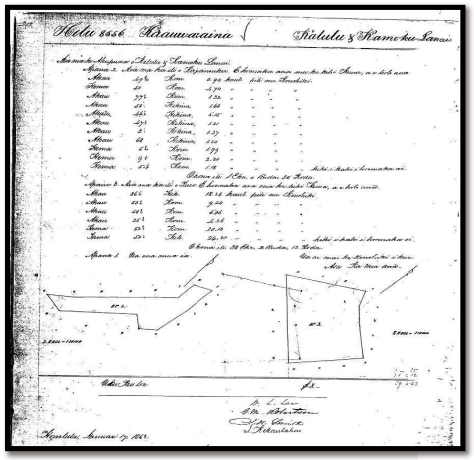


Figure 58. Helu 8556 of Kaauwaeaina. *Source*: Māhele Award Book 7:212

Helu 10630: The Claim of Pali

Helu 10630

Claimant Pali

Location Kamoku

Recorded at Lanai

Date February 5, 1848

Royal Patent 4800 (Figure 59 and Figure 60)

Native Register

Aloha to you Kaauwai, J. Ii and Armstrong, Commissioners who Quiet Land Claims. Here are my thoughts to you, that you will look upon my land claim. Here are the lands which the King gave me on Lanai. Auhea gave them to me. I am a Konohiki of the King, the lord of the land. That is what he said to me.

Here is this claim of mine. We spoke with Auhea, about my being the tax collector, that when the reign of the King in the Government was finished, then my position would end. That is was what we spoke of. But the Government would not consider my claim if my work should be at fault.

Here is this responsibility of mine, a responsibility of prayer [as an overseer of the Lanai Church] from Ricord and Hoapili. Richards is my overseer. I have attended this work for 13 years. That is what I took care of. Now Baldwin tends to the work, and I am under Baldwin.

School overseer is another responsibility of mine, gotten from those people who had it. That is it. The decision to approve or deny it, is now up to you as you decide. (Figure 61)

Native Testimony

Lanai. July 10, 1851.

Poupou, Sworn. I know his parcels of land in the Ahupuaa of Makaliilii, Kulelelua, Iwiole and the 2 Aumoku on Lanai. They are combined into one, being several moku mauu, sweet potato and gourd fields.

The boundaries are thus. Mauka, land of Konohiki. Kamaiki, land of Kaauaeaina. Makai, land of Konohiki. Kaena, Alanui (Road).

He received his land from M. Kekauluohi in the year 1839, and has resided there peaceably to this time. No one has objected, and he is the Overseer of these lands.

Keawe, Sworn. All the words above are true. My knowledge is the same.

Pali, Sworn. The reason for my thinking of joining them together as one, is because there are many places of mine which are cultivated here and there, and where are built houses. I go from one place to another to cultivate, as announced in the Elele [newspaper].

REF-170

Therefore I've joined my places together. It is as the witnesses have stated above. My claims for the other places are ended. (Figure 62)

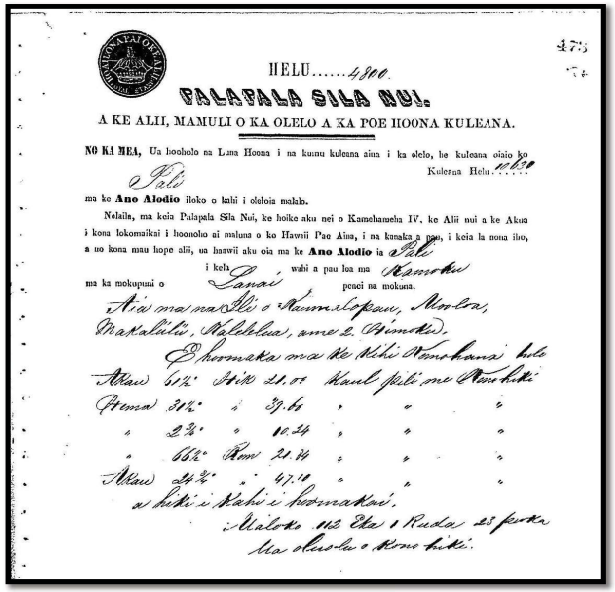
Foreign Testimony Jany. 17th, 1853.

Resolved, that the Land Commission be and is hereby authorized to award fee simple titles to Pali (Claim No. 10,630), Kalaihoa (No. 3719 B) and Malulu (No. 6846) as surveyed by Asa, containing respectively 112 1/4, 75 1/10 & 90 Acres.

By order of Privy Council

(Sig.) Lorrin Andrews,

Secretary. (Figure 63)



HELU.....4800.

PALAPALA SILA NUI.

A KE ALII, MAMULI O KA OLELO A XA POE HOONA KULEANA.

NO KI MEA, Ua hooholo na Luna Hoona i na kuinu kuleana aina i ka olelo, he kuleana oiaio ko Kuleana Helu 10630

Pali

ma ke **Ano Alodio** iloko o lalii i oleloia malah.

Nalaila, ma keia Palapala Sila Nui, ke hoike aku nei o Kamehameha IV, ke Alii nui a ke Akua i kona lokomaikai i hoonoho ai maluna o ko Hawaii Pae Aina, i na kanaka a pau, i keia la nona iho, a no kona mau hope alii, ua hawii aku oia ma ke **Ano Alodio** ia Pali

i keia Lanai, wahi a pau loa ma Kamoku

ma ka mokupuni o penei na mokuna.

Aia ma na Ili o Kamalopau, Moolua, Makaluhi, Kalehua, ame e Kimoku.

Ekomaka ma ke Kihi Komohana hele

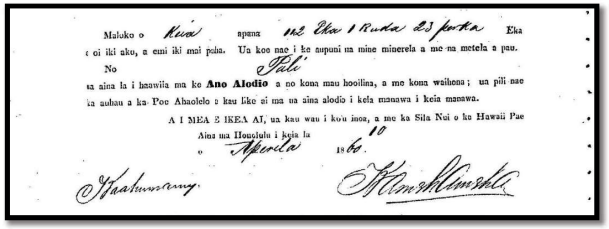
Akau	51½°	Hik	21.00	Kaul	pili me	Komohana
Hema	31½°	"	37.60	"	"	"
"	2¾°	"	10.24	"	"	"
"	65½°	Kom	21.40	"	"	"
Akau	24¾°	"	47.10	"	"	"

a hiki i Kahi i Komakai.

Maloko 112 Eka 1 Ruda 23 poeka

ka olelolu o Komo hiki.

Figure 59. Page 1 of 2. Royal Patent 4800 of Pali. Source: Book 19:473–474



Maloko o Kiva apana 112 Eka 1 Ruda 23 poeka Eka

e oi iki aku, a emi iki mai paha. Ua koe nae i ke aupuni na mine minerela a me na metela a pau.

No Pali

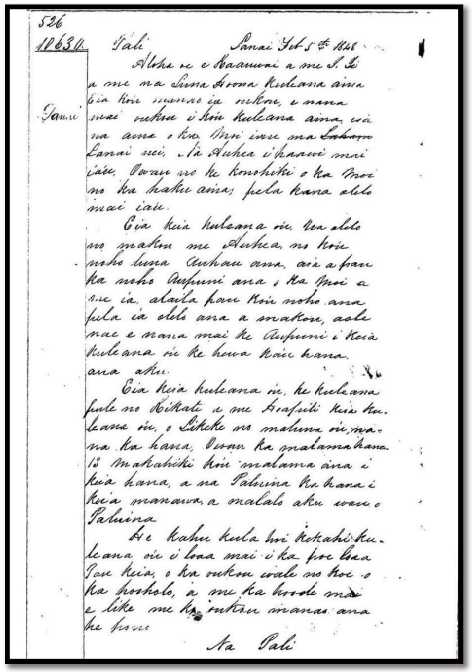
na aina la i hawiia ma ke **Ano Alodio** a no kona mau hooilina, a me kona waihona; ua pili nae ia auhau a ka Poe Ahaolelo o kau like ai ma na aina alodio i kela manawa i keia manawa.

A I MEA E IKEA AI, ua kau wau i koi inoa, a me ka Sila Nui o ko Hawaii Pae Aina ma Honolulu i keia la

o Apreela 10 1860.

Kamehameha

Figure 60. Page 2 of 2. Royal Patent 4800 of Pali. Source: Book 19:473–474



526

10630 Pali Lanai Oct 5th 1846

Aloha ia e Kaanwai a me S. E. a me na Luna Hoona Kuleana aina. Eia koi manao ia oukou, e nana mai oukou i koi kuleana aina ma na aina o ka Moi iuwe ma Lahaina Lanai nei. Na Auhea i hanai mai iaia. Owau no ke koshiki o ka Moi no ka hahi aina; pela kana olelo mai iau.

Eia keia kuleana iu. Ua olelo no makou me Auhea, no keia noho kupa Auhau ana, aia a pau ka noho Aupuni ana o ka Moi a me ia. alaila pau keia noho ana pela ia olelo ana a makou, aole nae e wana mai ke Aupuni i keia kuleana iu ke hewa keia kana ana aku.

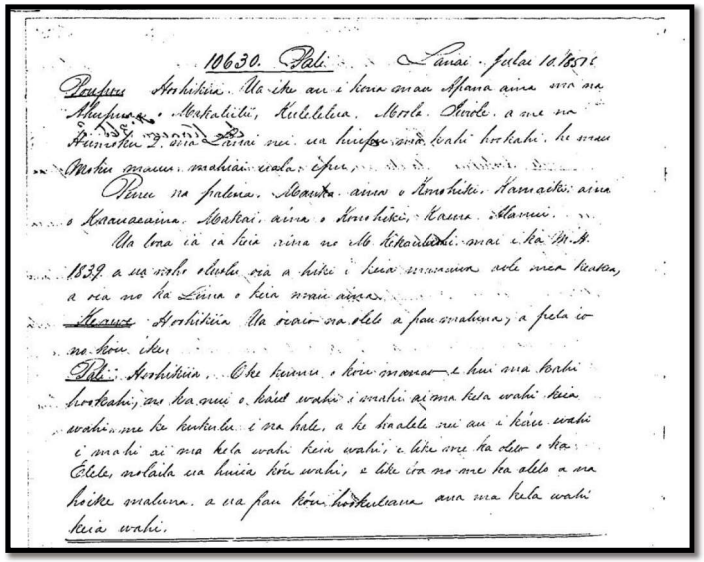
Eia keia kuleana iu, he kuleana pule no Kihale a me Grafuiti keia ku. Lana iu, o Lekeke na maluna iu, wa. na ka kana, Owau ka malamahana. Ia makahiki koi malama ana i keia kana, a na Pahuina ke kana i keia manawa, a malalo aku wau o Pahuina.

Ke hahi kula koi kokahi ku. leana iu i loaa mai i ka poe loaa Pae keia, o ka oukou oale no hoe o ka hoohola, a me ka hoole mai e like me ka intau manao ana he pono.

Na Pali

Figure 61. Helu 10630 of Pali. Source: Native Register 6:526

REF-171



10630. Pali. Lanai. Julai 10 1851

Penehu Aorhikiia. Ua ike au i kou mau Aina aina ma na Ahupuaa o Makaliilii, Kalelelua, Mooloa, Aiole, a me na Aumoku 2. ma Lanai nei. ua hiipoi mai kahi hookahi. he mau Moku maau. makiai wale ipu.

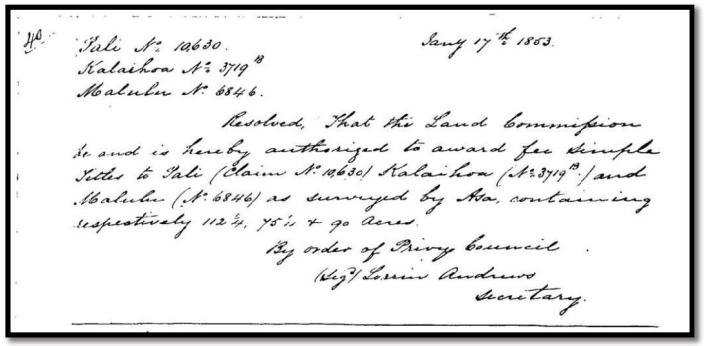
Penu na palena. Mauka. aina o Aorhiki. Kamaiki. aina o Kaauaaina. Makai. aina o Aorhiki, Kaua. Alanui.

Ua loa ia ia hoi aina no Mr Kikaulani. mai i ka M. A. 1839 a ua waho oleole oia a hiki i keia manawa ole mea kaokao, a ua no ka Luna o keia mau aina.

Hana Aorhikiia Ua ioaio na olelo a pau malunaa, a pela io no kou ike.

Pali: Aorhikiia, Oke kuuna o kou manao e hui ana kahi hookahi, ae ka oui o kaid wahi i wahi ai ma kela wahi keia wahi, me ke kukulu i na hale, a ke haalele nei au i kaua wahi i mahi ai ma kela wahi keia wahi, e like ana ka olelo o ka Elele, nolaila ua huiia kou wahi, e like ioa no me ka olelo a na hoike malunaa. a ua pau kou hookulana ana ma kela wahi keia wahi.

Figure 62. Helu 10630 of Pali. Source: Native Testimony 13:259



No. Pali No. 10630. Kalaihoa No. 3719 B Mealuhu No. 6846.

Jany 17th 1853.

Resolved, That the Land Commission &c. and is hereby authorized to award fee simple Titles to Pali (Claim No. 10630) Kalaihoa (No. 3719 B) and Mealuhu (No. 6846) as surveyed by Ala, containing respectively 112¼, 75½ & 90 Acres.

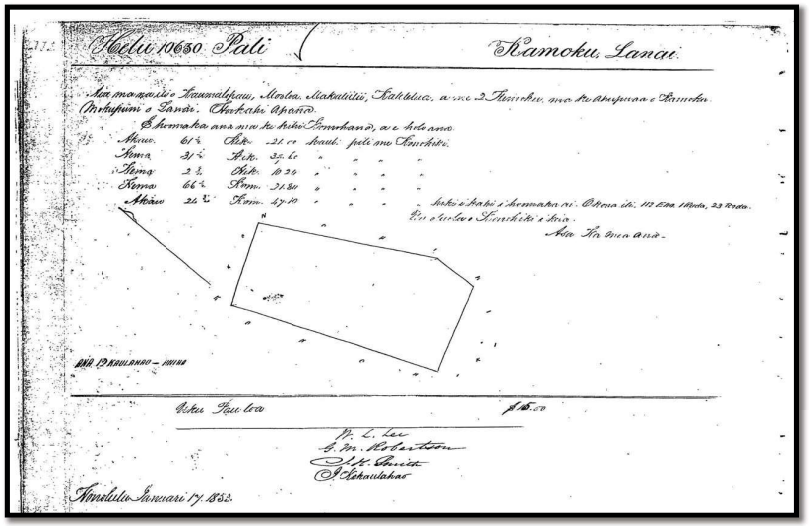
By order of Privy Council.
(Sig.) Lorrin Andrews
Secretary.

Figure 63. Helu 10630 of Pali. *Source*: Foreign Testimony 15:40

Māhele Award Book

There in the ili of Kaumalapau, Mooloa, Makaliilii, Kalelelua and 2 Aumoku, in the Ahupuaa of Kamoku, Island of Lanai. One Parcel.

Beginning at the Western corner and running. . . [metes and bounds] … 112 Acres, 1 Rood, 23 Rods. (Figure 64)



Helu 10630 Pali Kamoku, Lanai

Ua mana'o'ia o Kaumalapau, Mooloa, Makaliilii, Kalelelua, a me 2 Aumoku, no ke Ahupuaa o Kamoku, Mokupuni o Lanai. Hookahi Apana.

E hoomaka ana mai ma ke kihi Komohana, a e holo ana.

Akau.	61½	Hik.	21 10	Kauk.	pele ana	Komohio.	
Hema	31½	Hik.	35 10	"	"	"	
Hema	2½	Hik.	10 24	"	"	"	
Hema	66½	Kom.	31 30	"	"	"	
Akau	26½	Kom.	47 10	"	"	"	

hoko i kahi i hoomaka ai. O Ahua ia: 112 Eka 1 Mala, 23 Rada. Eia o Aiolea o Komohio i keia.

Ala Ka mea ana.

Helu Pau loa $15.00

W. L. Lee
A. M. Robertson
C. K. Clarke
J. Kekauilahao

Honolulu Januari 17, 1853.

Figure 64. Helu 10630 of Pali. Source: Māhele Award Book 7:222

Palapala Sila Nui, 1855–1867: Royal Patent Grant Lands on Lāna‘i

At the same time the Māhele ‘Āina was being undertaken, it was realized that many native tenants were not receiving lands claimed, or in the case of environmentally stressed areas, they were not able to claim adequate land areas to support their families. As a result, the king signed into law an act giving applicants the right to apply for larger tracts of land from the inventory of government lands set aside for the support of government operations. All Royal Patent Grants issued on Lāna‘i are listed in Table 15.

REF-172

Table 15. Royal Patent Grants on Lānaʻi

RP Grant No.	Grantee	Location	Acreage	Book	Year
1928	Koiku	Pawili	34.93	10	1855
1929	Kekua	Pawili	18.57	10	1855
1930	Nalimakaua	Pawili	31.96	10	1855
1931	Makaiholoae	Pawili	18.30	10	1855
2214	Lonopaawela	Pawili	1.64	12	1857
2903	Puupai	Pawili and Kealia Aupuni	52.00	14	1863
2971	Kapahoa	Pawili	33.00	14	1864
3029	Nahuina and Keliihue	Kalulu	236.68	14	1866
3030	Kapeleaumoku	Pawili	32.00	14	1866
3031	Kaaina	Kelaia Aupuni	99.07	14	1866
3032	Pali	Kaunolu	29.00	14	1866
3033	Keamo	Kaunolu	20.85	14	1866
3045	Wm. Beder	Kaunolu	128.00	14	1867

One Royal Patent Grant was awarded in Kamoku Ahupuaʻa, with a parcel also situated in the adjoining Kalulu Ahupuaʻa. This land is approximately two miles below the study area. The application and records follow. The original records were written in Hawaiian.

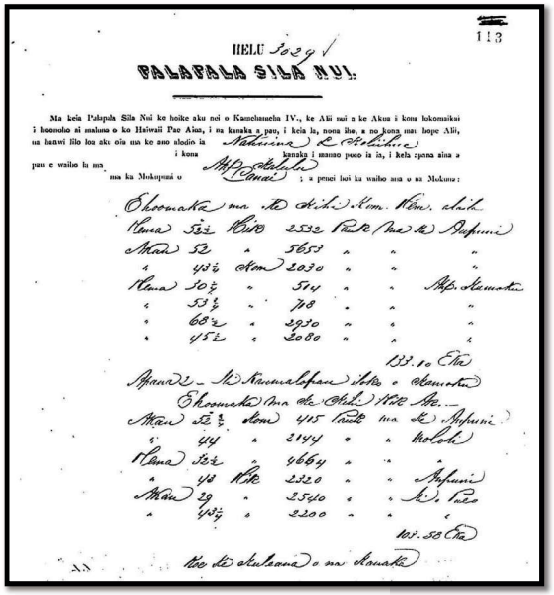
> Nahuina & Keliihue, he aina kuai ka laua me ke Aupuni, Kalulu i Lanai, 236.68 Eka, hookahi dala o ka Eka 1.
>
> No ka aina 236.75
> No ke Sila 5.00
> No ke Ana ana 20.00 261.75
> Kaa mua ia Ioane Richardson 158.00
> Kaa hope ia P. Nahaolelua 103.75
>
> Ua kaa loa keia aina, ua hooiliia ke dala i ke Kuhina Kalaiaina. E nana ma ka Buke 2 aoao 31. Ua loaa mai ka P. Sila Nui, Helu 3029, ua haawiia ia Nahuina & Keliihue.[103]

[103] Hawaiʻi State Archives, DLNR 2 Vol. 37:38.

A translation by Kepā Maly of the preceding document follows.

> Nahuina & Keliihue have purchased land of the government in Kalulu, Lanai. 236.68, at $1.00 per Acre.
>
> Price of the Land 236.75
> Price of the Patent 5.00
> Price of the Survey 20.00 261.75
>
> The land has been paid for in full, with the money collected by the Minister of the Interior. Look in Book 2, page 31. The R. Patent, Number 3029 has been received by Nahuina and Keliihue.

The Royal Patent documents are included as Figure 65 and Figure 66.


113

HELU 3029

PALAPALA SILA NUI.

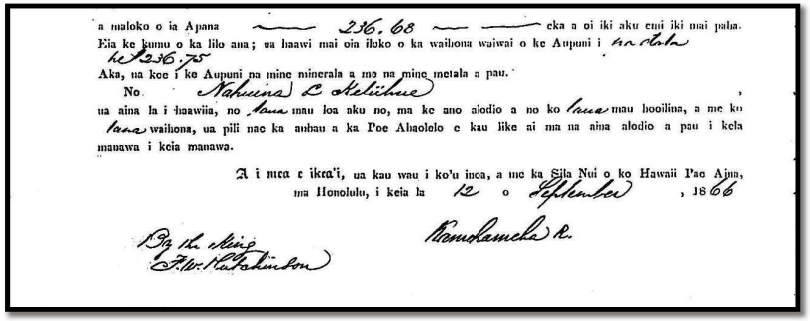
Ma keia Palapala Sila Nui ke hoike aku nei o Kamehameha IV., ke Alii nui a ke Akua i kona hakomaikai i hoonoho ai malunu o ko Hawaii Pae Aina, i na kanaka a pau, i keia la, nona ihe, a no kona mai hope Alii, na hanwi lilo loa aku oia ma ke ano alodio ia Nahuina & Keliihue i kona kuuka i manao poko ia is, i kela ipona aina a pau e waiho la ma Mokupuni o Lanai; a penei loi ia waiho ana o na Mokuna:

Okoomaka ma ke Ahi Kom. Kem. ahi
Kuua 52½ Kuo 2532 Pauku Pae ke Aupuni
Mau 52 " 5653 " " "
" 43½ Kom 2030 " " "
Kuua 10½ " 514 " " Ap. Namaka
" 53½ " 78 " " "
" 60½ " 2930 " " "
" 45½ " 2080 " " "
133.10 Eka

Apana 2 – Ke Kaomalapan Aela o Namaka
Okoomaka ma ke Ahi Kuo Ape.
Mau 52½ Kom 415 Pauku ma ke Aupuni
" 44 " 2144 " " Kolali
Kuua 52½ " 4664 " " "
" 48 Kuo 2320 " " Aupuni
Mau 29 " 2540 " " Ke. Pae
" 43½ " 2200 " " "
101.50 Eka

Ke ke Akuleana o na Kanaka

REF-173



a maloko o ia Apana — 236.68 — — eka a oi iki aku emi iki mai paha.
Eia ke kumu o ka lilo ana; ua haawi mai oia iloko o ka waihona waiwai o ke Aupuni i
Aka, na koe i ke Aupuni na mine minerala a me na mine metala a pau.
No Nahuina & Keliihue ,
ua aina la i haawiia, no kana mau loa aku no, ma ke ano alodio a no ko kana mau hooilina, a me ko kana waihona, ua pili nae ka aubau a ka Poe Ahololo e kau like ai ma na aina alodio a pau i kela manawa i keia manawa.

A i mea e ikea'i, ua kau wau i ko'u inoa, a me ka Sila Nui o ko Hawaii Pae Aina, ma Honolulu, i keia la 12 o September , 1866

Kamehameha R.

By the King
F. W. Rutherford

Figure 66. Page 2 of 2. Royal Patent 3029 of Nahuina and Keliihue. *Source*: Volume 14, p. 113–114

The following is from the Notes of Survey for Royal Patent 3029 to Nahuina & Keliihue, at Kalulu and Kamoku. The original document was written in Hawaiian. The sketch map accompanying the Notes of Survey is included as Figure 67.

Apana 1. Ma ke Ahupuaa o Kalulu, Mokupuni o Lanai.

E hoomaka ana ma ke kihi Komohana Hema o keia apana a holo aku i ka:

He. 52 ½º Hi. 2532 pauku pili me Aupuni;
Ak. 52º Hi. 2653 pauku pili me Aupuni;
Ak. 43 ¾º Ko. 2030 pauku pili me Aupuni;
He. 30 ¼º Ko. 514 pauku pili me Ahupuaa o Kamoku;
He. 53 ¾º Ko. 718 pauku pili me Ahupuaa o Kamoku;
He. 68 ½º Ko. 2930 pauku pili me Ahupuaa o Kamoku;
He. 45 ½º Ko. 2080 pauku pili me Ahupuaa o Kamoku;
Hiki i ke kihi mua. O kona ili 133 1/10 Eka.

Apana 2. Ma ka ili o Kaumalapau i loko o ke Ahupuaa o Kamoku.

E hoomaka ana ma ke kihi Hikina Akau o keia apana a holo aku i ka:

Ak. 52 ¾º Ko. 415 pauku pili me Aupuni;
Ak. 44º Ko. 2144 pauku pili me Malulu;
He. 32 ½º Ko. 4664 pauku pili me Malulu;
He. 43º Hi. 2320 pauku pili e Aupuni;
Ak. 29º Hi. 2540 pauku pili me Ili o Pueo;
Ak. 43º Hi. 2200 pauku pili me Ili o Pueo;
Hiki ke kihi i hoomaka ai.
O kona ili, 103. 58/100 Eka.

[John Richardson]

Waikapu

Nov. 1855.[104]

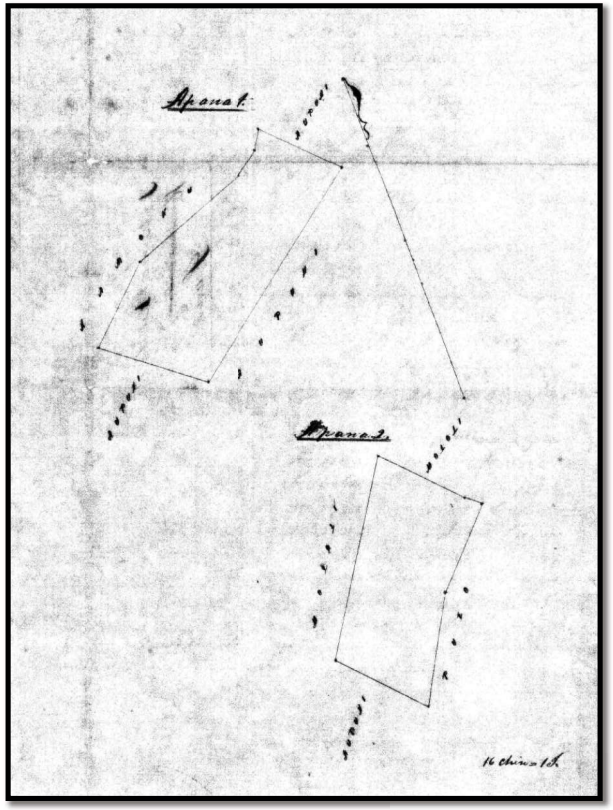


Figure 67. Sketch map accompanying the Notes of Survey for Royal Patent 3029 of Nahuina and Keliihue. *Source*: Hawai'i State Archives

[104] Hawai'i State Archives.

REF-174

Appendix B Historic Preservation Acceptance Letter for Previous Survey of Parcel 2 (Dye and Maly 2017b)

DAVID Y. IGE
GOVERNOR OF
HAWAII

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

JEFFREY T. PEARSON, P.E.
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

July 26, 2017

IN REPLY REFER TO:
Log No. 2017.01361
Doc No. 1707MBF07
Archaeology

Lynn McCrory
Senior Vice President of Government Affairs
Pūlama Lāna'i
733 Bishop Street, Suite 2000
Honolulu, Hawai'i 96813
lmccrory@pulamalanai.com

Dear Ms. McCrory:

SUBJECT: **Chapter 6E-42 Historic Preservation Review –**
Archaeological Assessment for a Proposed Construction Stockpiling and Staging Area
Kamoku Ahupua'a, Lāhaina District, Lāna'i Island
TMK: (2) 4-9-002:001

Thank you for the opportunity to review the draft report titled, *Archaeological Assessment Survey for a Proposed Construction Stockpiling and Staging Area; Lands of Kamoku and Paoma'i, Lahaina District, Lāna'i Island; TMK: (2) 4-9-002:001* (Dye and Maly 2017). The State Historic Preservation Division (SHPD) received this submittal on June 28, 2017.

At the request of Pūlama Lāna'i, T. S. Dye & Colleagues, Archaeologists has completed an archaeological inventory survey for a proposed Construction Stockpiling and Staging Area located at Kamoku, Lāhaina District, Lāna'i Island. The archaeological inventory survey included pedestrian survey of 100 percent of the 3.1-acre project area and excavation of four backhoe trenches. No potentially significant historic properties were identified. It is recommended the archaeological assessment report conclude historic preservation review for the Proposed Construction Stockpiling and Staging Area project.

Pursuant to HAR §13-284, the SHPD concurs with a project effect determination of *no historic properties affected*. The SHPD also agrees that no further archaeological work is necessary for the proposed project.

The report provides sufficient discussion of the project, physical environment, cultural and historical background, and previous archaeological studies and meets the requirements of HAR §13-276-5. **It is accepted.** Please send two hardcopies of the document, clearly marked FINAL, along with a copy of this review letter and a text-searchable PDF version on CD to the Kapolei SHPD office, attention SHPD Library.

Please contact Dr. Matthew Barker Fariss at (808) 243-4626, or at matthew.b.fariss@hawaii.gov, if you have any questions or concerns regarding this letter.

Aloha,

Susan A. Lebo

Susan A. Lebo, PhD
Archaeology Branch Chief

cc. Dr. Thomas S. Dye (tsd@tsdye.com)

Appendix C State Register Form for Kō'ele District, SIHP #50-40-98-1004

ARCHAEOLOGICAL COVER SHEET

HAWAII REGISTER OF HISTORIC PLACES

50 - 4 0 - 9 8 - 1 0 0 4
1 2 3 4 5 6 7 8 9
SITE IDENTIFICATION NUMBER

SITE NAME/TYPE: Koele District
DISTRICT: Lanai
AREA: _____ square _____ s

2 1 1 9 0 0 - 1 9 2 5
10 11 12 13 14 15 16 17 18 19 20
CARD No. DATE/PERIOD

CATEGORY: ___Single Feature X Complex ___Places
OWNERSHIP: ___Public X Private
PHOTOGRAPHS: X Yes ___No (Temp/Tech)
PRESENT LAND USES: Office / Residential
KNOWN PRESSURES ON SITE: None Known
DESTRUCTION: X No Known Future Danger ___Possible Future Danger ___Future Danger Certain ___Present Danger ___Presently Being Destroyed
STATUS: X Occupied ___Unoccupied
CONDITION: ___Excellent X Good ___Fair ___Deteriorate
INTEGRITY: ___Unaltered, Orig Loc ___Unaltered, Moved ___Altered, Orig Loc X Altered, Moved
ACCESSIBILITY: X Unrestricted ___Restricted ___Inaccessible

LEGENDARY MATERIALS KNOWN: ___Yes X No
WRITTEN HISTORICAL MATERIALS: X Yes ___No
IMPORTANCE AS EXAMPLE OF TYPE SITE: ___Good X Moderate ___Poor
SUSCEPTIBILITY TO INTERPRETATION: ___Good X Moderate ___Poor
RESEARCH POTENTIAL: ___Good X Moderate ___Poor
LOCAL ATTITUDES ABOUT SITE: ___Valuable X Moderate Value ___Low Value ___Ambivalent ___Unknown
BRIEF DESCRIPTION (Columns 21-80): Complex of buildings including two office structures, a church, and a house.

STAFF EVALUATION: ___High Value ___Valuable X Reserve ___Marginal
SUGGESTED THEMES: Agriculture; Settlement patterns; Habitation; Education; Religion

DATE SUBMITTED TO REVIEW BOARD: _____

REVIEWER'S RECORD AND EVALUATION

NAME: _____ DATE REVIEWED _____
CATEGORY: ___High Value ___Valuable ___Reserve ___Marginal
SIGNIFICANCE: ___National ___State ___Local
RECOMMENDED DISPOSITION: ___Nominate National Register ___State Register ___Staff Files
RECOMMENDED THEMES: _____

REVIEWER'S COMMENTS: _____

REVIEW BOARD EVALUATION RECORD

DATE REVIEWED: _____ RECORDER: _____
OFFICIAL CATEGORY: ___High Value ___Valuable ___Reserve ___Marginal
OFFICIAL SIGNIFICANCE: ___National ___State ___Local
OFFICIAL THEMES: _____

OFFICIAL DISPOSITION: ___National Register Nomination ___State Register ___Staff Files
REVIEW BOARD COMMENTS: _____

VOTING RECORD: Daws ___ Hormann ___ Jackson ___ Kikuchi ___
Lind ___ Mark ___ Nagata ___ Paglinawan ___
Roche ___ Tuggle ___

REF-175

HISTORICAL AND/OR ARCHITECTURAL SIGNIFICANCE

PERIOD OF SIGNIFICANCE:
EARLY CONTACT____ MISSIONARY_____ MIDDLE 19th CENTURY
MONARCHY____ TURN OF THE CENTURY__x__ 20th CENTURY__x__

ARCHITECT: Unknown

BUILDER: Various

SPECIFIC DATES: c. 1900-1925

STATEMENT OF SIGNIFICANCE, INCLUDING HISTORICAL SKETCH:

The Koele District is being recommended for Reserve status based on its historical association with the growth and development of Lanai. Although many of the remaining structures have been dismantled and moved from Keomuku to Koele, the site as the ranch office for the Lanai Ranch under Hayselden, Gay and Monroe is historically significant.

Koele was the original homesite of the Fred H. Hayselders, who inherited a major portion of the island from the estate of Walter Murray Gibson, Mrs. Hayselden's father. In 1892 The Friend described the home as 1800' above sea level under the lee of the mountain, and as the only place for white men to stay on Molokai. The ranch had 400 head of cattle as well as 45,000 sheep and 600 horses on its 10,000 acres in 1890. J.J. Morehead served as ranch manager. By 1896 however, the ranch had reduced its cattle to 300 and sheep to 25,000. The Hayselden complex included the main house, described as a U-shaped structure with three bedrooms, and corrugated iron roofing. Other structures laid out in the surrounding gardens and lines of Norfolk pines, were cottages for the employees and a wool warehouse, as well as smaller outbuildings. When the Hayseldens sold their interest in the island in 1902,(due primarily to the failure of their sugar company.(see HRHP 40-98-1001), Charles Gay of Kauai purchased the island and moved into the ranch complex at Koele. Gay also bought land holdings owned by W. H. Pain and Mrs. Paul Newman, and leased lands owned by Irwin and Spreckels.

During Gay's ownership many of the ranch activities were centered at Keomuku. Gay also built another house two miles away from Koele at Lalakoa. The house, set on an acre lot in the mountains, was a large (10,000 square feet) eight bedroom house.

In 1912 a Mr. Monroe purchased the island. The Baldwins purchased the island in 1917. Th houses now used as Lanai Company offices were dismantled and moved from Keomuku. The ranch headquarters were moved due to the lack of water at Keomuku, dependent on Lahaina for its water. This relocating of the ranch offices and facilities was done under ranch manager Hector Munro.

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF STATE PARKS
P. O. BOX 621
HONOLULU, HAWAII 96809

Island Quad Site No.

HAWAII REGISTER OF HISTORIC PLACES
SHORT FORM

SITE NAME/TYPE Richardson House

LOCATION Koele, Lanai

OWNER Lanai Company

MERIT: __Architectural X Historical

INFORMATION: Written __No X Yes: Gay, Lawrence, True Stories of Lanai

Informant __No X Yes: Mrs. John Richardson

GENERAL DESCRIPTION AND STATEMENT OF SIGNIFICANCE:

This house was included in the inventory for its historic interest. It was originally the old school house. This one-story wooden house is of board and batten construction. It has a main gable roof and shed extensions on both the front and rear. A full front porch runs along the width of the house. Remnants of a wooden slat architecture run for three bays on the front and continues for two bays along the side. Windows are double hung twelve-light.

Portions of the house served as the Koele school house before it was dismantled and moved to its present site. The one-room schoolhouse (additions were made after the house was moved, c. 1922) was built by Charles Gay around 1908 for his children as well as the children of ranch employees. It was located near the present Ka Lokahi Oka Malamalama Hoomana Naauao O Hawaii Church.

Lawrence Gay mentions the school in his book. It was one of two on the island. The other was located fifteen miles away at Keomuku. Miss Lewa Iokia was the school teacher.

REASON FOR USE OF SHORT FORM: District

SURVEYED BY John C. Wright RECOMMENDATION Reserve

DATE OF SURVEY March 1974 TAX KEY

LOCATION MAP IS DRAWN ON OPPOSITE SIDE OF SHORT FORM

REF-176

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF STATE PARKS
P. O. BOX 621
HONOLULU, HAWAII 96809

40 / 98 / 1004
Island Quad Site No.

HAWAII REGISTER OF HISTORIC PLACES
SHORT FORM

SITE NAME/TYPE Lanai Company Offices

LOCATION Koele, Lanai

OWNER Lanai Company

P. O. Box 486, Lanai City, Lanai 96763

MERIT: __Architectural X Historical

INFORMATION: Written X No __Yes: _____

Informant __No X Yes: John J. Tracy, Jr., Lanai Company

GENERAL DESCRIPTION AND STATEMENT OF SIGNIFICANCE:

These two houses were included in the Survey as examples of the settlement patterns on the island of Lanai. These houses were originally located in Keomuku, and were used as ranch buildings before the ranch headquarters were moved to a higher elevation. The buildings are at least 50 years old.

The houses are both one-story wooden structures with gable roofs. The larger of the two has shingle siding as well as a shingle roof and an intersecting roof line. A small front porch leads to the two entrance doors.

The smaller house has a front porch the full width of the structure. Double posts frame the entrance steps. The building is also covered with shingles, although the roof has a corrugated iron cover. Neither structure has any distinctive architectural features.

The buildings were dismantled and moved from Keomuku during Hector Monroe's management of the ranch. Monroe, a New Zealand rancher, purchased the ranch and island from Charles Cay in 1912. In 1917 the island was sold to F.F. and H.A. Baldwin.

The buildings were relocated due to a lack of water in the Keomuku area.

REASON FOR USE OF SHORT FORM: District

SURVEYED BY John C. Wright RECOMMENDATION Reserve

DATE OF SURVEY March 1974 TAX KEY _____

LOCATION MAP IS DRAWN ON OPPOSITE SIDE OF SHORT FORM

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF STATE PARKS
P. O. BOX 621
HONOLULU, HAWAII 96809

40 / 98 / 1004
Island Quad Site No.

HAWAII REGISTER OF HISTORIC PLACES
SHORT FORM

SITE NAME/TYPE Ka Lokahi Oka Malamalama Hoomana Naauao O Hawaii Church

LOCATION Koele, Lanai

OWNER Lanai Company

MERIT: X Architectural X Historical

INFORMATION: Written __No XYes: See John F. Mulholland, Hawaii's Religions, Rutland 1970.

Informant X No __Yes: _____

GENERAL DESCRIPTION AND STATEMENT OF SIGNIFICANCE:

Although a later addition to the Koele area, this church is being recommended for Reserve status based on its architectural interest. It is similar to the church still standing at Keomuku, and is a good example of wood church construction.

This is a small wood church located on a half-acre level site on the outskirts of town. Lawns and shrubbery are interrupted by paved walks. There is a small parish house on the southeast side and outhouses in back. The floor is raised about three feet above grade on wood posts and joists.

The church is about 16 by 32 feet, of single wall construction with boards and battens. A steep gable roof with a small belfry and a small gabled entrance porch with wood posts and rail are distinguishing features.

The interior is a single open space with an 11 foot flat wood ceiling and a raised chancel on the northeast end. The windows, three on each side, are double hung twelve-light wood sashes.

The church is noteworthy as a simple, unpretentious structure with pleasing vertical proportions, enploying a straightforward use of materials.

Historically, the church is a branch of an independent Hawaiian church which had its origins in a factional quarrel within Kalahikiola Church, North Kohala, in 1853. At first centered around family leadership through Rev. John Kekipi Maia and his descendants, many of the present-day churches retain the denominational name of Hoomana Naauao O Hawaii, but have varying degrees of independence.

Note: The spelling of "Naauoa", as given by Mulholland, is incorrect, and should be "Na'auao."

REASON FOR USE OF SHORT FORM: District

SURVEYED BY John C. Wright RECOMMENDATION Reserve

DATE OF SURVEY March 1974 TAX KEY 4 - 9 - 01

LOCATION MAP IS DRAWN ON OPPOSITE SIDE OF SHORT FORM

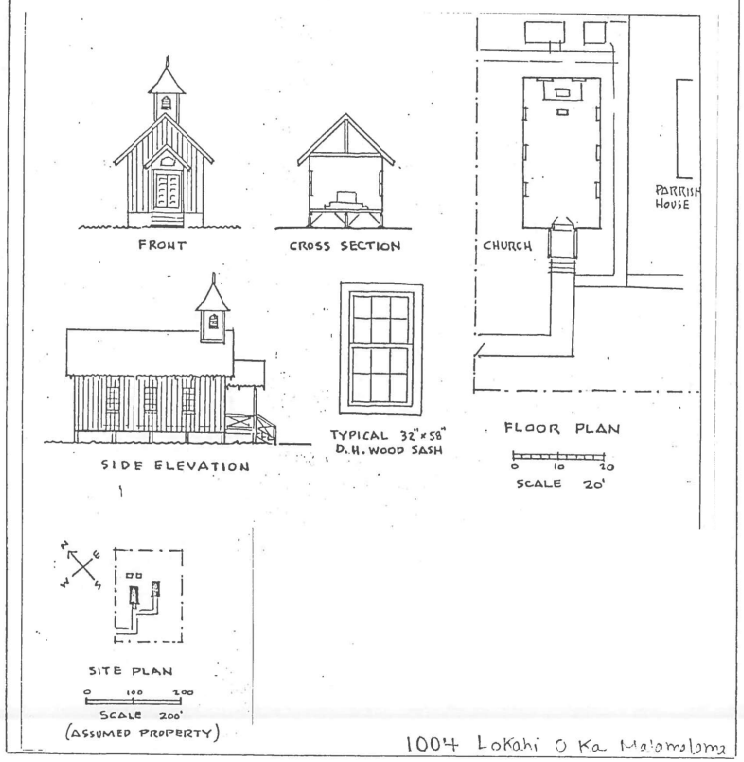
REF-177

HRHP-4-73A

HAWAII REGISTER OF HISTORIC PLACES

HISTORICAL SITES INFORMATION AND REVIEW FORM---CONTINUATION SHEET

Please note subject heading (Statement of Significance, etc.; use separate sheet for each heading).



Appendix D Kō‘ele District, SIHP #50-40-98-1004, Structures C and D (Kaschko 1986:29-30)

Photo 3. Structure C: Front of George Ohashi's house. View to northeast.

Figure 68. Photo showing the original condition and location of Structure C of SIHP # -1004 (Kō‘ele District) (Photo from Kaschko and Athens 1986:29)

REF-178

Photo 4. Structure D: Pablo Libero's house, the old ranch office. View to east.

Figure 69. Photo showing the original condition and location of Structure D of SIHP # -1004 (Kō‘ele District) (Photo from Kaschko and Athens 1986:30)

Appendix E Wood Charcoal Species Identification (WIDL)

IARII INTERNATIONAL ARCHAEOLOGICAL RESEARCH INSTITUTE, INC.
ARCHAEOBOTANICAL ANALYSIS • WOOD IDENTIFICATION LABORATORY

September 27, 2019

Nathan DiVito
Honua Consulting
4348 Waialae Ave #254
Honolulu, HI 96816

RE: Analysis of wood sample from Lāna‘i, Ko’ele, LRFI 57.2 Acres [WIDL1915]

Aloha Nathan,

The report for analysis of your sample from Lāna‘i, Ko’ele, LRFI 57.2 Acres project is attached. Don’t hesitate to contact me if you would like to discuss the results.

Best regards,

Jennifer Huebert
(808) 946-2548, Ext. 107
jhuebert@iarii.org

* * * * * * * *

METHODS

The freshly fractured transverse, tangential, and radial facets of selected charcoal fragments were examined with an epi-illuminated microscope at magnifications of 50–500X. Taxonomic identifications were made by comparing observed anatomical characteristics with those of woods in the IARII reference collection. Vouchers associated with this collection have been verified and archived at the Department of Botany, University of Hawai‘i at Mānoa. Other published references, including books, journal articles, technical documents, and wood atlases, were also consulted. Material that was not examined was returned to its original packaging.

PREHISTORIC & HISTORIC INVESTIGATIONS • CULTURAL RESOURCES ASSESSMENTS & PLANNING • PALEOENVIRONMENTAL STUDIES

HAWAI'I: 2081 Young Street, Honolulu, Hawai'i 96826-2231 - Tel: (808) 946-2548 - Fax: (808) 943-0016 - Email: HonoluluOffice@iarii.org
GUAM: P. O. Box 22621, GMF, Guam 96921 - Tel/Fax: (671) 646-5552 - Email: GuamOffice@iarii.org

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RESULTS

WIDL No.	Taxon	Plant Part & State of Preservation	Count	Weight (g)	Comment
Lāna'i, Ko'ele, LRFI 57.2 Acres					
1915-1	*Sida* sp.	Wood charcoal - twig	1	0.05	~6 mm dia. x 1.7 cm len., fragmentary
1915-2	Indeterminate hardwood	Wood charcoal - twig	1	0.06	6 mm dia. x 1.2 cm len., approx. half circumference present
1915-3	Indeterminate hardwood	Wood charcoal - twig	1	0.17	7 mm dia. x 2 cm len., whole with pith
1915-4	*Sida* sp.	Wood charcoal - twig	1	0.07	~4 mm dia. x 2 cm len., fragmentary
1915-5	*Sida* sp.	Wood charcoal - twig	1	0.18	6 mm dia. x 1.9 cm len., whole with pith
1915-6	*Myoporum sandwicense*	Wood charcoal	71	17.91	Most of unprcessed material (in bag marked 'Residual') also appears to be this taxon

Most of the charcoal pieces in this sample that were over 4 mm in size were examined. Two taxa were identified: a type of *Sida* (*'ilima*) and *Myoporum sandwicense* (*naio*). See Taxa Review below for more information on these species; anatomical details of the wood anatomy are also provided below.

It should be noted that while the native *'ilima* (*Sida fallax*) is fairly common in archaeological assemblages, the species can't be assumed if there is a chance the archaeological context is not pre-Contact. A previous study has suggested to me the wood of this genus might not be diagnostic to species, and there are several historically introduced species in Hawai'i, including *S. rhombifolia* (Cuba jute, introduced 1830s, Nagata 1985:Table 2) and others, some of which are naturalized throughout the islands.

If any of this material is to be considered for radiocarbon dating, the best choices are the very small *'ilima* twigs, as at 4-6 mm diameter they are likely to have minimal inbuilt age. For more information on this topic, several papers can be forwarded upon request (Allen and Huebert 2014, Rieth and Athens 2012).

TAXA REVIEW

MALVACEAE (Mallow family)

Sida fallax Walp. (*'Ilima*)

Sida fallax is an indigenous shrub was planted in the past, as it is today, near houses to provide flowers for *lei* (Neal 1965:553). It has been found growing naturally along coasts, on open lava fields, and in dry to mesic forests on all of the main Hawaiian Islands (Wagner et al. 1990:898). The entire plant had many additional uses: erect stems were tied to the frame of the sleeping house upon which *pili* grass (*Heteropogon contortus*) was lashed, whole *'ilima* bushes tied together were also used to secure mounds of taro plantings in swampy areas, and the prostrate coastal *'ilima* was used as floor coverings under mats

(Handy and Handy 1972:228). The roots and flowers have medicinal uses (Neal 1965:553). Several historically-introduced *Sida* are also present, and in places are widespread, in the Hawaiian Islands.

SCROPHULARIACEAE (Figwort family)

Myoporum sandwicense A. Gray (*naio*)

The habit of this indigenous tree ranges from a shrub 1 m tall in coastal areas to a 15 m tree at higher elevations. It has been found from sea level to 2,380 m on all the main Hawaiian Islands except Kaho'olawe (Wagner et al. 1990:928-929). The fragrant wood was once used for house posts (Buck 1957:83), and in historical times it was harvested for trade with China when the supply of native sandalwood became low (Rock 1974:429).

DESCRIPTIONS OF WOOD ANATOMY

<u>*Myoporum sandwicense*</u>

Vessels small to medium size diameters, in small clusters of 2-4(5) cells distributed some distance apart, occasionally in vague tangential alignments; rays often bi-seriate with uniseriate cells at ends, frequently shorter but up to medium heights; small alternate intervessel pits (~4 µm) and faint helical depressions often on vessel walls; vessel-ray pits similar to intervessel

<u>*Sida* sp. (inclusive of *S. fallax*)</u>

Vessels small, under 40 µm diameter, solitary or by 2-3(4); surrounded by thin sleeves of axial parenchyma; fiber walls very thick; rays narrow, bi-seriate, extremely tall in TLS; intervessel pits alternate, 3-4 µm

REFERENCES

Allen, M.S., and J. M. Huebert
2014 Short-Lived Plant Materials, Long-Lived Trees, and Polynesian 14C Dating: Considerations for 14C Sample Selection and Documentation. *Radiocarbon* 56(1):257–276.

Buck, Peter H. (Te Rangi Hiroa)
1957 *Arts and Crafts of Hawaii*. Bishop Museum Special Publication 45, Honolulu.

Handy, E. S. Craighill, and Elizabeth G. Handy
1972 *Native Planters of Old Hawaii: Their Life, Lore, and Environment*. Bishop Museum Bulletin 233. Bishop Museum Press, Honolulu.

Nagata, K. M.
1985. Early Plant Introductions in Hawai'i. *Hawaiian Journal of History* 19:35–61.

Neal, Marie C.
1965 *In Gardens of Hawaii*. Bernice P. Bishop Museum Special Publication 50. Bishop Museum Press, Honolulu.

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Rieth, T., and J.S. Athens
2013 Suggested Best Practices for the Application of Radiocarbon Dating to Hawaiian Archaeology. *Hawaiian Archaeology* 13, 3–29.

Rock, Joseph F.
1974 *The Indigenous Trees of the Hawaiian Islands*. Reprint. Charles E. Tuttle Co., Rutland. Originally privately published 1913.

Wagner, Warren L., Derral R. Herbst, and S. H. Sohmer
1990 *Manual of the Flowering Plants of Hawai'i*. University of Hawai'i and Bishop Museum Presses, Honolulu.

4

Appendix F Radiocarbon Results

Beta Analytic
TESTING LABORATORY

Beta Analytic Inc
4985 SW 74 Court
Miami, Florida 33155
Tel: 305-667-5167
Fax: 305-663-0964
info@betalabservices.com

ISO/IEC 17025:2005-Accredited Testing Laboratory

REPORT OF RADIOCARBON DATING ANALYSES

Nathan DVito — Report Date: October 21, 2019

Honua Consulting LLC. — Material Received: October 11, 2019

Laboratory Number	Sample Code Number	Conventional Radiocarbon Age (BP) or Percent Modern Carbon (pMC) & Stable Isotopes Calendar Calibrated Results: 95.4 % Probability High Probability Density Range Method (HPD)	
Beta - 539719	**WIDL# 1915-4**	**350 +/- 30 BP**	IRMS δ13C: -26.0 o/oo

(54.2%)	**1538 - 1635 cal AD**	**(412 - 315 cal BP)**
(41.2%)	**1458 - 1530 cal AD**	**(492 - 420 cal BP)**

Submitter Material: Charcoal
Pretreatment: (charred material) acid/alkali/acid
Analyzed Material: Charred material
Analysis Service: AMS-PRIORITY delivery
Percent Modern Carbon: 95.74 +/- 0.36 pMC
Fraction Modern Carbon: 0.9574 +/- 0.0036
D14C: -42.64 +/- 3.58 o/oo
Δ14C: -50.59 +/- 3.58 o/oo (1950:2019)
Measured Radiocarbon Age: (without d13C correction): 370 +/- 30 BP
Calibration: BetaCal3.21: HPD method: INTCAL13

Results are ISO/IEC-17025:2005 accredited. No sub-contracting or student labor was used in the analyses. All work was done at Beta in 4 in-house NEC accelerator mass spectrometers and 4 Thermo IRMSs. The "Conventional Radiocarbon Age" was calculated using the Libby half-life (5568 years), is corrected for total isotopic fraction and was used for calendar calibration where applicable. The Age is rounded to the nearest 10 years and is reported as radiocarbon years before present (BP) "present" = AD 1950. Results greater than the modern reference are reported as percent modern carbon (pMC). The modern reference standard was 95% the 14C signature of NIST SRM-4990C (oxalic acid). Quoted errors are 1 sigma counting statistics. Calculated sigmas less than 30 BP on the Conventional Radiocarbon Age are conservatively rounded up to 30. d13C values are on the material itself (not the AMS d13C). d13C and d15N values are relative to VPDB-1. References for calendar calibrations are cited at the bottom of calibration graph pages.

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BetaCal 3.21

Calibration of Radiocarbon Age to Calendar Years

(High Probability Density Range Method (HPD): INTCAL13)

(Variables: d13C = -26.0 o/oo)

Laboratory number **Beta-539719**

Conventional radiocarbon age **350 ± 30 BP**

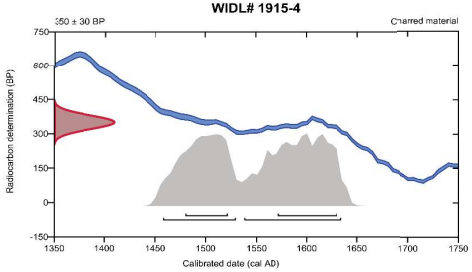
95.4% probability

(54.2%)	1538 - 1635 cal AD	(412 - 315 cal BP)
(41.2%)	1458 - 1530 cal AD	(492 - 420 cal BP)

68.2% probability

(38.8%)	1572 - 1630 cal AD	(378 - 320 cal BP)
(29.4%)	1480 - 1522 cal AD	(470 - 428 cal BP)

WIDL# 1915-4



Database used

INTCAL13

References

References to Probability Method

Bronk Ramsey, C. (2009). Bayesian analysis of radiocarbon dates. Radiocarbon, 51(1), 337-360.

References to Database INTCAL13

Reimer, et.al., 2013, Radiocarbon55(4).

Beta Analytic Radiocarbon Dating Laboratory
4985 S.W. 74th Court, Miami, Florida 33155 • Tel: (305)667-5167 • Fax: (305)663-0964 • Email: beta@radiocarbon.com

REF-182

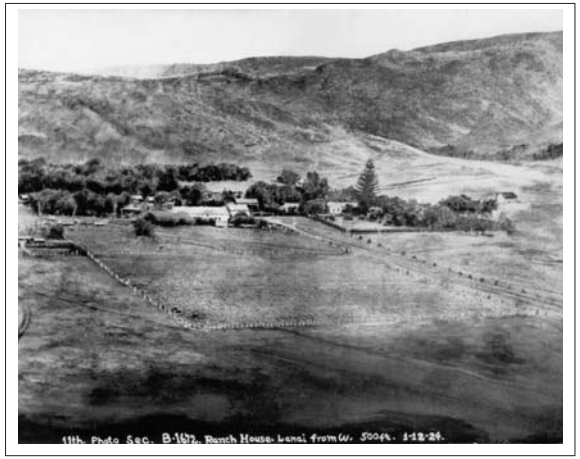
CULTURAL AND HISTORICAL RESOURCES SURVEY

APPENDIX

F

REF-183

LĀNAʻI A KAULULĀʻAU: TRADITIONS AND HISTORICAL ACCOUNTS OF KŌʻELE, AHUPUAʻA OF KAMOKU, ISLAND OF LĀNAʻI



Kōʻele Ranch January 12, 1924 11th Photo Sec. B-1672. View from West at 500 Foot Elevation (George Munro Collection, Lānaʻi Culture & Heritage Center)

View from Lālākoa-Nininiwai to Kōʻele, former Chas. Gay And Kōʻele Ranch Pastures ca. 1930 (George C. Munro Collection, Lānaʻi Culture & Heritage Center)

Prepared by Kepā Maly
For Pūlama Lānaʻi
Lānaʻi City, Hawaiʻi
March 20, 2017

REF-184

EXECUTIVE SUMMARY – SYNTHESIS OF FINDINGS

This study was prepared in conjunction with a project being undertaken by Pūlama Lānaʻi that will update and expand facets of the resort, which in 1990, became known as the Lodge at Kōʻele. Kōʻele is the traditional name of the land area in which the resort sits and is part of a larger traditional land division (ahupuaʻa) known as Kamoku. The study brings years of research into one collection, with detailed narratives covering Hawaiian traditions, land tenure records, stories of the people, and historical accounts from Kōʻele, the larger ahupuaʻa of Kamoku, and neighboring lands on Lānaʻi. The texts are organized in several categories, covering the earliest written accounts from the island of Lānaʻi and include eyewitness accounts in both Hawaiian and English language. Through the narratives, readers gain insight to the: (1) cultural context of the landscape, (2) native traditions, (3) settlement and residency patterns, (4) traditional-customary practices, (5) land use, and (6) history of the people of Lānaʻi. The narratives document changes in residency and land use following western contact and the evolution of ranching on the landscape. A collection of oral historical interviews with elder kamaʻāina—made a part of this study—also describes the cultural attachment and experiences of residents on the land. The combined documentation may serve as the foundation for development of respectful management practices by those who develop and operate the resort at Kōʻele.

The ahupuaʻa of Kamoku, comprising 8,291 acres of land, is one of thirteen native land divisions on the island of Lānaʻi, and is situated on the Kona (Leeward) side of the island,. One later historic account recorded in 1930 references a place on Lānaʻi called "Kumoku," as the place where the gods first stepped upon land on Lānaʻi (Beckwith, 1940:11). In letters penned by Walter Murray Gibson who resided on Lānaʻi between 1862 and 1888, he sometimes wrote the name of the ahupuaʻa as "Kumoku" rather than Kamoku. Though all early Hawaiian language and kingdom records use the latter spelling. Also, early Hawaiian language accounts cite Kaunolū as the place where the gods first land on Lānaʻi (Nupepa Kuokoa, Ianuali 12, 1865:1).

There is a rich history and ample physical evidence of native Hawaiian residency in the ahupuaʻa of Kamoku. But by the late 1840s, when King Kamehameha III granted fee-simple property right to his people, only four natives recorded claims for personal property rights in the ahupuaʻa. Eyewitness accounts from the 1820s and later provide us with descriptions of the land and Hawaiian residency. Then in the period from 1875 to 1951, there is a significant collection of records describing the ranching era of Lānaʻi, which was based out of Kōʻele.

In between July 12th, 1921 to January 27th, 1922, Kenneth Pike Emory traveled to Lānaʻi to undertake a cultural study of the island on behalf of the Bishop Museum. At the time, the island was functioning as a ranch and the population—approximately 125 people—resided in three primary places: the windward Keōmoku-Kahalepalaoa region; Kōʻele near the 1,700-foot elevation; and Pālāwai Basin at approximately the 1,100-foot elevation. The results of Emory's field work and research were published in "The Island of Lanai, a Survey of Native Culture" (Bishop Museum, 1924). Emory provided descriptions of both traditional Hawaiian knowledge and sites, and historic ranching operations at Kōʻele and the larger Kamoku Ahupuaʻa.

The author of this study began learning and documenting facets of Lānaʻi's history with kūpuna and elder kamaʻāina in the early 1970s. As time went on informal interviews were

conducted and expanded notes developed from conversations with elder residents. There were also numerous field visits to wahi pana (storied-sacred places) around the island. In 1975, the author accompanied Kenneth Emory on a week-long trip around Lānaʻi. In 2001, formal recorded interviews with elder kamaʻāina of Lānaʻi were begun, and visits to wahi pana (storied places) continued.

No new interviews were conducted as a part of the present study. Rich oral historical memories have been recorded with elder kamaʻāina, born as early as the 1890s. The memories of these individuals traditional knowledge and cultural attachment to place. Through the interviews, we learn that facets of that knowledge and customary practices still exist in the community.

An expression of this cultural attachment to Kōʻele is found in the Hawaiian lines below, composed in 1989-1990 by Lānaʻi native, Kupuna Irene Kamāhuialani Cockett Perry, born at Keōmoku Village in 1917—

I waena o ka Pakipika, aia o Hawaiʻi.	In the middle of the Pacific, behold Hawaiʻi.
I waena o Hawaiʻi, aia o Lānaʻi.	In the middle of Hawaiʻi, behold Lānaʻi.
Aia i ka mole o Lānaʻi, o Kōʻele.	There at the center of Lānaʻi, is Kōʻele.
E hoʻokipa mai i Kōʻele!	Be welcome at Kōʻele!

Kupuna first lived at Keōmoku village, where her father, Robert E. Cockett, was foreman for the ranch, and responsible for laying out the windmill and water system across the windward lowlands. When she was about 12 years old, she and her family relocated to Kōʻele, where her father served as an assistant to George C. Munro. In early 1930, Kupuna's parents worked with the ranch community and Hawaiian Pineapple Company to build the little Hawaiian Church, named, Ka Lōkāhi o ka Mālamalama by her mother, Rose Kahikiwawe Cockett. When the Lodge at Kōʻele was being built, Kupuna was asked by artist, John Wullbrandt, to compose a Hawaiian mele or poem that would be integrated into the artwork that greeted guests arriving at Kōʻele. Those lines share the heart of Lānaʻi's people for this storied landscape.

Excerpts from eight interviews have been incorporated into this study from a larger collection of oral history interview transcripts. The narratives focus on personal knowledge and experiences described by the interviewees as related to traditions and practices in the proximity of Kōʻele. While undertaking new interviews was not a part of the current study, these interviews, recorded with elder native Hawaiians and kamaʻāina provide valuable documentation pertaining to the cultural-historical landscape.

In the late 1980s Castle & Cook began a major project of ground movement and filling to develop the Lodge at Kōʻele. The process was a painful one for the community and native families of Lānaʻi, nearly all of whom were descended from, or were surviving ranch employees and families. The original proposal was to demolish the remaining ranch homes, cut down the only Norfolk Island Pine tree on the island, remove the historic church, and demolish other remaining features. Lānaʻi families, joined by residents from across the state, fought to preserve some of the historic character of Kōʻele. Oral history interviews were conducted (audio and video), and agreement was reached to preserve—(1) the Norfolk Island Pine, planted in ca. 1878 (the seedling given as a gift by Kind David Kalākaua to his friend, Walter Murray Gibson); (2) relocate the Hawaiian Church, Ka Lōkāhi (and it's annex) on the Kōʻele grounds; (3) relocate the last two ranch houses to the north of the resort, and

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allow a life-interest of residency to the last two old cowboy families of Kō‘ele; and (4) relocate and preserve the 1916 Kō‘ele School House building. The latter commitment was never completed.

As a result of the extensive ground work undertaken for development of the resort, no traditional cultural features are known to remain on the landscape. Some historic features, including trash pits and/or outhouse pits occur below surface. Even the old Kō‘ele reservoir, originally built in ca. 1911, was completely remade when the resort was first built in 1988-1989. It is unlikely that the proposed project will have an impact on cultural or historic resources. Though it is recommended that monitors trained in identifying subsurface features be on site when ground work is undertaken as a means of ensuring that previously unidentified resources are not uncovered.

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"Lanai" (Government Survey, 1878).
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CULTURAL-HISTORICAL STUDY OF KŌʻELE, KAMOKU AHUPUAʻA, ISLAND OF LĀNAʻI

BACKGROUND

This cultural-historical study focuses on native traditions and historical accounts that describe the ahupuaʻa (native land division) of Kamoku, focusing on the ʻili (land area within an ahupuaʻa) of Kōʻele, situated in the uplands around the 1,700-foot elevation. The study introduces readers to the Hawaiian cultural context of Lānaʻi's history—the landscape, traditions of settlement and residency, patterns of land use, valued fisheries, and traditional-customary practices—as documented in archival records and by island elders and other kamaʻāina. The study has been prepared in conjunction with a proposal by Pūlama Lānaʻi to redesign and expand the resort facilities at Kōʻele. The narratives also incorporate traditions of neighboring ahupuaʻa to provide readers with the larger view of native life and history in this regions of Lānaʻi. The study includes documentation on valued beliefs and practices, and serves as a foundation for development of respectful management practices at Kōʻele, and offer rich details for sharing the history of place with those who live at or visit the area.

All of the archival and oral history resource material has been compiled by Kepā and Onaona Maly over the last 40-plus years. The archival documentation dates back to the 1820s, and includes some of the earliest written records from Lānaʻi. Oral historical records date back to the early 1970s, and were recorded while the author was growing up on Lānaʻi. The original records, maps and photographs are now part of the collection of the Lānaʻi Culture & Heritage Center, and digital collections of the larger history of Lānaʻi—original records and typed transcripts—may be found on line at www.lanaichc.org or www.lanaiguideapp.org.

THE BIO-CULTURAL LANDSCAPE OF LĀNAʻI

The island of Lānaʻi is sixth in size of the major Hawaiian Islands (Figure 1), and like all islands in the group, it was formed through volcanic eruptions and is constantly being reshaped by erosional activity. The primary caldera is the area now known as the Pālāwai Basin, and it is estimated that Lānaʻi first rose above sea level approximately 1.5 million years ago. It is approximately 13.25 mi. long by 13 mi. wide, and at its highest point, Lānaʻi Hale, stands 3,370 ft. above sea level. The island of Molokaʻi lies to the north of Lānaʻi, across the Ka-lohi Channel, and Maui lies to the east, across the ʻAuʻau and Naeheehe Channels; the channel of Ke-ala-i-Kahiki and the island of Kahoʻolawe lie to the southeast. The southern and western sides of Lānaʻi face the open ocean and are fringed by imposing cliff sides, while the windward side slopes gently to the sea. Thus, Lānaʻi sits in the lee of its neighboring islands. Its history, like that of Molokaʻi and Kahoʻolawe, has almost always been overshadowed by the larger neighbor, Maui.

The name of the island may be literally translated as "day of conquest"—Lā meaning "day" and Naʻi meaning "conquest." Through the tradition of the chief Kaululāʻau, Lānaʻi was named on the day that the young chief vanquished the evil ghosts from the island. An early missionary dictionary translates the island's name as "hump," but this translation does not fit in with traditional knowledge of the meaning or pronunciation of the name [cf. cf. Pukui et al. 1974].

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In addition to political and social contexts, Lānaʻi's relationship to Maui and Molokaʻi includes a significant environmental one as well, sitting as it does in the rain shadow of the larger and higher islands. Lānaʻi's ecosystem evolved in the absence of man and most mammals, giving rise to cloud forest zones, which gave life to the land, and made the island hospitable to people when they settled Lānaʻi approximately 800 years ago. There were two primary forest-watershed zones. The major watershed of Lānaʻi Hale at the highest peak of Pālāwai and Keālia Aupuni Ahupuaʻa, and the area that has historically been called the Kānepuʻu forest zone of Kaʻā Ahupuaʻa. Kōʻele is sheltered in the leeward ridges of the Lānaʻi Hale watershed, and its name is attributed to the cloud and fog patterns which form as a result of the mountain and forest zone.

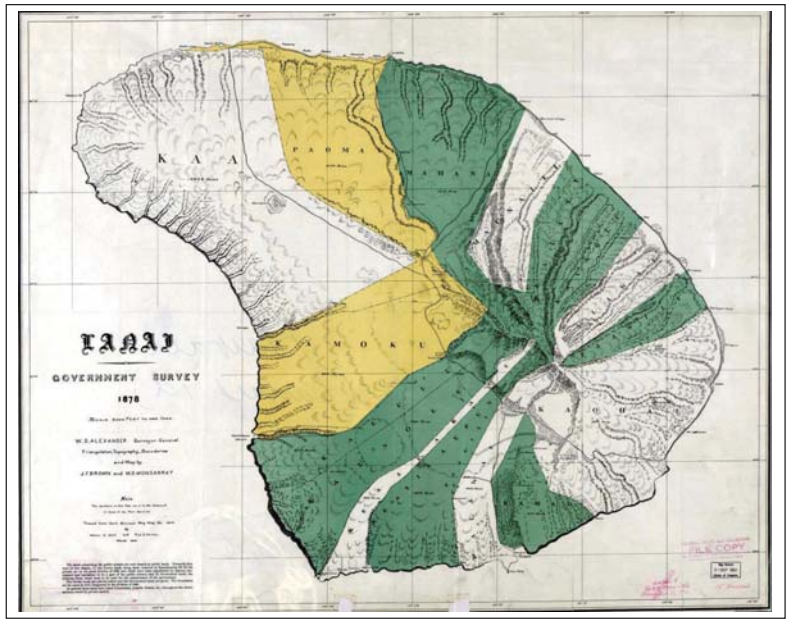

Figure 1. "Lanai" (Government Survey, 1878). Register Map No. 1394 (Library of Congress – Digital Map Collection)

In the late 1960s-early 1970s, elder native speakers of Hawaiian translated Kō-ʻele as describing black or dark (ʻele) fog and clouds being borne (kō) down upon the breezes from the higher mountain, and covering the landscape. The phenomena of the dark clouds or fog being driven down slope by the winds is still evident some days at Kōʻele, though not as frequent as it was even 40 or 50 years ago. While there are other translations for the word "kōʻele," this translation is based on kamaʻāina Lānaʻi knowledge of place, and is descriptive of the environment of Kōʻele.

The occurrence of the cold, moist fog and clouds settling in the area is also documented in other ʻili names which adjoin Kōʻele. Nininiwai to the southeast is translated as "Dripping water;" and Kihamāniania (or Kihemānienie) is translated as "Sneeze and shiver" (pers. comm. Daniel and Hattie Kaopuiki, Sr.).

Untouched for countless centuries, the forest systems of Lānaʻi evolved the specialized ability to capture droplets of water, which in turn percolated through the ground to create water sources that were spread from mountain to shore across the island. While these precious forest regions have been radically altered by man's activities and feral animals, evidence of the region's water-producing capabilities are still visible on the landscape and in traditional accounts and historic literature.

The earliest traditional lore of Lānaʻi describes the arrival of the gods Kāne, Kanaloa, and their younger god-siblings and companions to the southern shores of the island. Later accounts describe the visit of the goddess Pele and members of her family to the windward region of Lānaʻi. Subsequent narratives describe the settlement of Lānaʻi by evil spirits, and the difficulties that the early human settlers encountered in attempts to safely colonize the island. Another tradition relates that in the early 1400s, a young Maui chief by the name of Kaululāʻau traveled around Lānaʻi vanquishing the evil ghosts/spirits of the island, making it safe for people to live on Lānaʻi, and is the source of the island's name, Lānaʻi a Kaululāʻau.

By the early 1600s, all the islands of the Hawaiian group were settled sufficiently to develop an organized way to manage scarce resources. Each island was divided into political and subsistence subdivisions called ahupuaʻa, that generally ran from the ocean fishery fronting the land area to the mountains. Under the rule of Piʻilani, Lānaʻi was divided into 13 ahupuaʻa. Native tradition describes ahupuaʻa divisions as being marked by stone cairns (ahu) with a carved pig (puaʻa) image placed upon them, and these ancient divisions remain the primary land unit in the Hawaiian system of land management on Lānaʻi today.

The culture, beliefs, and practices of the Hawaiians mirrored the natural environment around them. They learned to live within the wealth and limitations of their surroundings. There is significant archaeological evidence on the island indicating that in the period before western contact, more people lived on the land sustainably—growing and catching all they needed—than currently live upon the island. Several important traditions pertaining to the settlement of Lānaʻi and the beliefs and practices of the ancient residents are commemorated at such places as Kaululāʻau, Kalaehī, Ke-ahi-a-Kawelo, Halulu, Puʻupehe, Pōhaku ō, Kānepuʻu, Kaʻena iki, Nānāhoa, Kōʻele, Kihamāniania, Haʻalelepaʻakai, and Puhi-o-Kaʻala.

Ancient Hawaiian villages, ceremonial features, dryland agricultural fields, fishponds, and a wide range of cultural sites dot the shoreline of Lānaʻi at places like Keone, Kaumālapaʻu, Kaunolū, Māmaki, Palaoa, Huawai, Kapihaʻā, Hulopoʻe, Mānele, Kamaiki, Naha, Kahemanō, Lōpā, Kahalepalaoa, Kāheʻa, Keōmoku, Kaʻa, Hauola, Maunalei (including a wetland taro field system in the valley), Kahōkūnui, Kaiolohia, Kahāʻulehale, Kahue, Lapaiki, Awalua, Polihua, and Kaʻena.

In the uplands, localities at Hoʻopulupuluamoa and Malulani, Kōʻele and Kihamāniania, Kalulu uka, Kaunolū uka, Keālia Kapu, Keālia Aupuni, and Pālāwai were also locations of significant traditional settlements and agricultural endeavors. We also know that over the

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generations, families with permanent residences in the Lāhaina District of Maui frequented Lānaʻi to partake in the richness of its fisheries.

In the 1790s, the population of Lānaʻi was estimated to have been 6,000 people (cf. The Maui News, Dec. 24, 1926, 7:2). Lānaʻi residents cultivated the land for their staple foods, and fished in the rich ocean waters that surrounded the island for their protein. By 1800, the population was reduced as a result of disputes between the kings of Hawaiʻi and Maui. Little Lānaʻi found itself surrounded by, and then overrun by warriors of the invading forces. These conflicts in turn, impaired Lānaʻi's capacity to produce agricultural resources and sustain its traditional population. In one year between 1804 and 1805, it is estimated that 2,000 Lānaʻi natives died as a result of the maʻi ʻōkuʻu (a foreign introduced disease), that is reported to have killed 150,000 Hawaiians across the islands (The Pacific Commercial Advertiser, Mar. 2, 1873:3). By the late 1840s, there were approximately 604 inhabitants residing on Lānaʻi. By the 1870s, the population hovered around 300 residents, and by the early 1890s, there were just 175 native residents.

MOʻOLELO ʻĀINA (NATIVE TRADITIONS OF THE LAND)

Moʻolelo (native traditions and history) contain rich descriptions of the relationship shared between Hawaiians, their god, living environment, practices and experiences through life. Historical accounts written both by Hawaiians and foreigners add to the rich narratives, either recalling events of the past, or describing changes in our island communities. The moʻolelo and historical accounts that follow in this section of the study, provide readers with important understanding of the cultural landscape of Lānaʻi, which extends from the heavens to the horizon.

The Gods Walked the Land—Early Settlement of Lānaʻi

Several traditions pertaining to the gods and people of ancient Lānaʻi were found in a review of Hawaiian-language newspapers. These accounts describe the island condition and the life and practices of Lānaʻi's ancient people. The narratives establish the bond between Lānaʻi and neighboring islands of the Hawaiian group and more distant Kahiki—the ancestral homeland of the gods—as Kāne, Kanaloa, Pele, and others of the god-family shaped the natural environment and lives of the people of the land. Coming into the historic period, readers find significant changes on the land and in the lives of the people of Lānaʻi. Selected accounts are related here that transition readers through the history of Lānaʻi and a native landscape to one of change under western settlement.

The Water of Life Opened on Lānaʻi by Kāne and his Companions

One of the early traditions to mention Lānaʻi describes the visit of the Kāne, Kanaloa and Kāneʻāpua to Kaunolū, with events transpiring along the shore and in the uplands.

> **Ianuali 12, 1865 (aoao 1)**
> **Nupepa Kuokoa**
> **Ka Hoomana Kahiko, Helu II.**
> **Ua moolelo o Kane, ame kona mana, ame kana mau hana**
>
> **Ancient Religion, Part II.**
> **The tradition of Kāne, his power and his deeds.**
> (Kāneʻāpua travels to Kahiki from Kaunolū, and helps bring all manner of foods to the Hawaiian Islands)
>
> Here is the tradition of these gods. Kane the elder, and Kanaloa, his younger sibling, and their younger sibling, Kaneapua. They came from the Foundations of Kahiki, and dwelled here in Hawaiʻi. The Hawaiian people worshiped them as their gods in ancient times. These are some of the things they did, they planted vegetable foods, and when matured, they cooked them. When the food was ready, they prayed thus. "Here is the food o gods, Kāne and Kanaloa. Here are the vegetable foods, here are the fish, that I might have life, and my descendants, till the tapping of the cane is heard, till the skin is like the dried pandanus leaves, I plant and fish, and build a house (temple) for you, in which I might worship you the gods."

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And if it is a woman, she worships in this way, “Here is the food, o gods, here are the vegetable foods, here are the fish of Kane and Kanaloa, that I and my descendants may live, till the tapping of the cane is heard, and the skin looks like the dried leaves of the pandanus; to cultivate foods and to fish, till things are heaped for you o gods, indeed I worship you.”

About his Power
Here is his power, when they two were traveling about Hawaiʻi, and they reached a place where there was no fresh water, Kane thrust his staff into the earth, and fresh water poured forth. Such places were called “The water thrust forth of Kāne and Kanaloa.”

Here are some other powers that they had. They could take over the life of a man, one that they led to do that which they desired, such as if they wanted ʻawa or fish, some other thing that they desired. There were many things that they did at places they traveled to, like making the fishpond at Honuaula, by their power.

His Deeds
Drinking awa is what they did, from Hawaii to Kauai, and this is why the thrust forth to make the water, to have water for the mixing of their ʻawa, at the places they stayed. This is how they came to stay at Lanai. And when they finished visiting Hawaii, they returned to where they had come from, Lau-ena-a-Kane (in Kahiki). Those sands are the sands which are tossed upon them during their periods of sleep.

Now their younger sibling (Kaneapua), was left at Kaunolu on Lanai, watching from the point, which is named Lae o Kaneapua. There came a time when Kanewahanui sailed from Hawaii, seeking out those things which he desired. Kaneapua called out to him, “Where is the canoe traveling to?” Kanewahanui answered, “The canoe seeks to tread upon the bosom of Kane and Kanaloa.” Kaneapua, responded, “Is that so! The bosom of the gods that you a mortal shall tread upon. How about if I join you as well?”

Kanewahanui agreed, and they traveled to the Foundations of Kahiki, and his desire was satisfied. Kaneapua led Kanewahanui to see the net of Makalii, and it was at that time that the net of Makalii was gnawed by the rat of Kanewahanui, and that all kinds of foods were obtained in Hawaii.

So I have heard. Naimu [Translation, K. Maly]

About Kāneʻāpua at Kaunolū, the Spring of Miki, and the People of Lānaʻi

Native historian, Samuel Kamakau, penned many accounts documenting Hawaiian history, practices, beliefs, and historical observations of his time. As a part of a lengthy series published over several years, Kamakau told readers about ancient Hawaiian seafarers. Among the accounts is one of Kāneʻāpua, a man of godly associations, who resided at Lae ʻĀpua, and for whom the islet fronting Kaunolū is named. Though inaccessible in the modern day, there is a significant walled structure situated atop the islet. We also learn in the tradition, that Kāneʻāpua traveled to the uplands and, at Miki, mated with a woman of Lānaʻi.

The result of the union is that Kāneʻāpua is an ancestor of some of the native families of Lānaʻi (Nupepa Kuokoa, January 5th, 1867).

Ianuari 5, 1867 (aoao 1)
Nupepa Kuokoa
He Moolelo no Wahanui me Kaneapua ma Lanai
A Tradition of Wahanui and Kāneʻāpua on Lānaʻi
Wahanui was a chief of Oahu who went to Kahiki. Wahanui was the chief, Kilohi was the astronomer, and Moopuaiki was the navigator. They sailed and landed at Haleolono, Molokai. In the early morning, they sailed along the cliff of Kaholo, on Lanai, at daylight, they passed by the point of Kaunolu. Just a little to the southeast of there, is the Point of Apua. That is the name of this place to the present day. There was dwelling there a man by the name of Kaneapua. The man called out, thus, “The canoe, whose canoe is it?” It is for Wahanui.”

“So Wahanui is the chief, who is the priest?” “It is Moopuaiki.” “So Moopuaiki is the priest, who is the astronomer?” “It is Kilohi.” “Where is the canoe sailing to?” “The canoe, is sailing to Kahikiku, Kahikimoe, and Kahiki of the rain drops of Kane, to tred upon the bosom of Kane.” “Your chest is that of a man, and to tred upon the bosom of Kane, is the end of life, only death will remain. How about if I become one of them upon the canoe?”

Kilohi, the astronomer said, “The canoe is completely loaded, you cannot come.” As they sailed on by, passing a certain point, a storm arose, along with a wind and water spouts. Lest the canoe be overturned, they sheltered the canoe at Kaunolu, and then landed at Kaumalapau.

In the story of this man, Kaneapua, it is said that he came here from Kahiki. He came with his elder brothers, and because there was no water, they sent him to the uplands at Miki, to get some water. It is there in the uplands of Lanai. But because the older brothers coveted the rich lands of Kaneapua, that is the land of Kahalapiko, they abandoned Kaneapua on Lanai. He mated with a woman of that place, and became an elder of some of the people there.

Wahanui folks continued trying (to sail), and frequently came close to dying, as storms came upon the canoe at Kealaikahiki, Kahoolawe, where one sails to Kahiki. It is said in the tradition of Wahanui’s sailing to Kahiki, that there was much trouble that came upon them in the sea. When Kaneapua became the steersman, they reached the lands of Kahiki. He was foremost of the navigators, and knew all of the stars of the sky and heavens… [Translation, K. Maly]

These two native traditions are among the earliest that describe the gods coming to Lānaʻi. Another account collected by Martha Beckwith in ca. 1930, from David Malo Kupihea, an aged native of Molokaʻi, stated that the god Kū was the first of the gods to arrive on Lānaʻi. The place where he first stood was called “Kumoku” (Beckwith, 1940:11). This tradition and the location have not been found in any of the native language accounts authored by native Hawaiians in the period between the 1830s and 1940s. Though in letters penned by Walter Murray Gibson who resided on Lānaʻi between 1862 and 1888, he sometimes wrote the name of the ahupuaʻa as “Kumoku” rather than Kamoku.

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A Famine on Lānaʻi—
An Ancient Prayer Offered by Pakeaulani to the God Kānepaʻina

In the Hawaiian newspaper Nupepa Kuokoa (Novemapa 8, 1862), John Puniwai published a tradition describing events in the lives of two ancient residents on Lānaʻi. There was a period of famine across the islands, and nearly the entire population of Lānaʻi had died. Puniwai's account shares the tradition of a god at one of the heiau on Lānaʻi, "Kānepaʻina," and how the health of the land was returned. The word anela (ʻānela - Hawaiianized angel) is used by Puniwai in place of the traditional words "ʻaumakua" or "akua." Also cited within this account is a pule (prayer) uttered by ancient residents of Lānaʻi.

No na Akua o ka Wa Kahiko...
…Eia mai he wahi moolelo no ka malama ana o kekahi anela paha, a mau anela paha, oia hoi he mau Kane paha. Penei ua wahi moolelo la. Aia ma Lanai ka noho ana o Kaimumahanahana, a me kana keiki o Pakeaulani, a he nui loa no na kanaka ma Lanai ia manawa; a hiki mai ke kau wi, pau aku la na kanaka i ka make a ka ai, a koe elua o Kaimumahanahana, a me Pakeaulani, kokoke make nae ka makuakane. O ka Pakeaulani hana, oia keia. Hele wale aku la no keia e eli wale aku no i kulina uala, a loaa ka uala liilii, (he au ia uala) kalua a moa, lawe aku la keia a he wahi heiau a ianei i hanaʻi, kaumaha aku la, alaila, pule aku la, penei kahi hapa o ka pule.

Kini o ke akua
E ka lehu o ke akua
E ka pukui akua
E ka lalani akua
E kahuli, e kahele
E ka wahine e moe ana ke alo iluna
Eia ka ai au a Pakeaulani keiki a
Kaimumahanahana

Pau ka pule, hoi keia a imi hou i ai no ke ahiahi, a moa ia ai lawe aku, i lawe aku ka hana, ua pau kela ai, kau keia ai, pule no hoi e like me mamua. I kekahi imu liilii ana a ianei, honi mai la kona makuakane i ke ala o ka uala! I mai la kela, "Auhea hoi kau uala e kuu keiki e aala mai nei?" Pane mai la kela, "He ai ia na kuu akua." Pane hou mai kona makuakane, "Aohe oʻu akua, a he akua ka hoi kou?" A hala ae la na la elima o kana hana ana pela, alaila, i ka po kamailio mai la kekahi anela o Kanepaina. I mai la, "Ea, a keia po e panipani aku oe i na pukapuka liilii o ko olua hale, a e noho malie mai kamailio pu me kou makuakane a pau ae la ka laua kamailio pu ana, a hele aku la ia anela. Ninau mai la kona makuakane ia, "Owai kou hoa i kamailio mai la." I aku la oia, "O kuu akua hoi ia aʻu e malama nei." Aole liuliu ma ia hope iho, haule mai ana ka ua he nui, ka ua no ia a ao ka po a po ua la nei, a ao ua po nei, malie iho la ka ua. I puka aku ka hana iwaho ua palaku ka Maia, ua moe ke Ko a ala mai, hele ke anakiu o ka uala a keke, ua hele ka Ape a hilala ka ha; o ke kalo hoi ua makaole kekahi kihapai, a o kekahi pumaia ka ha o ke kalo. Ke kalua iho la no ia o ka ai a moa, kaumaha e aku la keia i ke Akua oia nei, a pau hoi mai la laua nei ai ka uala, ke kalo, a ai no hoi ka mai a maona; o ka laha hou no ia o kanaka o Hawaii nei, ma Lanai wale no. Oia iho la kahi moolelo o ka malama ana o kekahi o na Kane ia mau kanaka…

Owau no me ka mahalo. John Puniwai.

About the Gods of Ancient Times…
Here is a little tradition pertaining to observances for a certain angel (guardian), angels, or perhaps men. The story is this.
There was residing on Lānaʻi, Kaimumahanahana there were many people living on Lānaʻi at that time. There came a time of famine, and all the people died, leaving only Kaimumahanahana and his son, Pakeaulani, and there were many people living on Lānaʻi at that time. There came a time of famine, and all the people died, leaving only Kaimumahanahana and Pakeaulani, though the father was close to death. Here is what Pakeaulani did. He went and dug up some scraggly sweet potato runners and got a few small sweet potatoes, and baked them. He took these things to a heiau and did the following, he worshipped, made the offerings, and prayed. This is a portion of his prayer:

Forty thousand gods
Four hundred thousand gods Assembly of gods
Alignment of gods
Those that change, those that move about
O women that lie face up
Here is your food, prepared by Pakeaulani,
Son of Kaimumahanahana.

When he finished praying, he went again and sought out food for the evening. He cooked the food and took it, doing the same with all the food until it was done, and set there (at the temple), and he prayed as he had before. He prepared the food in a small imu, and his father smelled the scent of the sweet potatoes! He said, "Where are your sweet potatoes that I smell, my son?"

He answered him, saying, "It is the food of my god." The father then answered, "I don't have a god, but you do?" Five days passed in his (Pakeaulani) doing this same thing, then on the fifth night, an angel, Kānepaʻina, spoke. He said, "Heed me, this night go and close the very littlest of the holes in the house of you two, and stay calm, do not speak with your father." When they two were finished speaking, the angel departed. His father asked him "Who was the companion with whom you were speaking?" He answered, "My god whom I have been worshipping."

Not long afterwards, a great rain fell. It rained night and day, and through several nights and days until there was calm, then the rains fell lightly. Looking outside to see what had transpired, there was seen ripe bananas, sugar cane lying upon the ground, sweet potatoes spread all about, ape (mountain taro) with long stalks leaning to the side; Kalo (taros) which filled the gardens, banana stalks were used as the channels (to irrigate) for the taro. He then cooked the food, and made an offering to his God. When finished, they two ate the sweet potatoes, taro, and bananas until filled. This is how Hawaiians came to once again be spread across Hawaii, only from Lānaʻi. So this is one tradition of how one of the Kāne (gods), was worshipped by these men...

I am with appreciation. John Puniwai. [Translation, K. Maly]

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Moʻolelo no Kaululāʻau (Traditions of Kaululāʻau)

One of the best known traditional accounts of Lānaʻi dates from the early fifteenth century and associates the island with the ruling chiefs of Maui. In these narratives, a young chief, Kaululāʻau, was born to Kakaʻalaneo and Kanikaniaʻula (or Kelekeleiokaʻula). Kakaʻalaneo's elder brother was Kākaʻe. Fornander reported that these royal brothers jointly ruled Maui and Lānaʻi (Fornander 1973:II-82, 83). During the reign of Kākaʻe and Kakaʻalaneo's, and for many generations preceding it, anyone who attempted to live on Lānaʻi experienced great difficulties, as the island was inhabited by evil ghosts/spirits (akua) ruled by their king, Pahulu. While there are numerous narratives that describe how Kaululāʻau came to free Lānaʻi from the rule of Pahulu, thus making it safe for people to inhabit the island, there are two major versions of this tradition with variations on the events. The best known is the version published by King David Kalākaua in 1888, but the most detailed version was published in the Hawaiian language in 1863 in association with another tradition from Maui, "Ka Moolelo o Eleio."

King Kalākaua's version provides a significant description of Lānaʻi and the ability of its people to sustain themselves by working the land and fishing the sea around the island. Through the encouragement of his friend and advisor Walter Murray Gibson[1], the king compiled the traditions found within The Legends and Myths of Hawaii [15] and described Lānaʻi as being richly supplied with food crops, natural resources, and fisheries that, but for the presence of the evil beings, made it a desirable place to live.

Ka Moolelo o Eleio (The Tradition of Eleio)

The tradition of Eleio is set in the time of Kakaʻalaneo's rule over Maui, Lānaʻi, Molokaʻi, and Kahoʻolawe (c. 1400). It was published by W. N. Pualewa, in the Hawaiian-language newspaper Kuokoa, in 1863. The account tells us that Eleio was a famous kūkini associated with the court of the king. He was noted for his ability to travel the circuit of the island, to fetch a choice fish from one district and bring it to the court in another district, so quickly that upon arrival, the fish would still be alive. When it was learned that Kelekeleiokaʻula, Kakaʻalaneo's wife, was expecting, the king granted Eleio the privilege of naming the child. Eleio stated his desire, that if it was a boy, the child should be named Kaululāʻau (The-forest-grove). When the child was born, it was indeed a boy, and he was named Kaululāʻau. As the child grew, his mysterious manner and mischievous nature created many problems for his parents and the people of Maui. Eventually, the youth was banished from Maui and sent to Lānaʻi to fend for himself. At that time in history, Lānaʻi was reportedly inhabited by hordes of akua under the rule of Pahulu. While on Lānaʻi, Kaululāʻau was accompanied by his own personal god, Lono. Together, the two traveled about Lānaʻi, tricking the ghosts, killing them, and setting the lands free from their dominion.[2]

Kaululāʻau began his journey around Lānaʻi, and at the point where we join the tradition, we are told that he has already killed many of Pahulu's minions. Fearing for his own life Pahulu

[1] Walter Murray Gibson settled on Lānaʻi in 1861, and by the 1870s came to control most of the land on the island through fee-simple and leasehold title. A friend of many chiefs, some of whom who had been on Lānaʻi with Kamehameha I, Gibson recorded a number of traditions from the island, and is generally attributed with the Lānaʻi narratives cited by King Kalākaua.

[2] Nupepa Kuokoa, October 24 & 31, 1863.

feigned friendship with Kaululāʻau, telling him that he would help him seek out the other akua who remained on the island. Pahulu's real objective was to round up the remaining akua to fight and kill Kaululāʻau. The party traveled around the island counterclockwise, leaving the Keōmoku region, passing through Kaʻena, Honopū, Kamoku, Kaumālapaʻu and on to Kaunolū. The excerpts below, translated from the original Hawaiian language account include the references found that describe the coastal region of Kamoku and vicinity. There are no descriptions of Kaululāʻau passing through Kōʻele in the traditions. The full Hawaiian account may be viewed in the Hawaiian language newspaper "Nupepa Kuokoa."

The excerpts below, translated by Maly, describe some of the events along the leeward, cliff-lined coast of Lānaʻi, and passes along Kamoku's shore.

> **Nupepa Kuokoa**
> **Okatoba 24, 1863 (aoao 1)**
> **Ka Moolelo o Eleio (Na W.N. Pualewa)**
> **The Tradition of Eleio**
> **(By W.N. Pualewa)**
> …Kaululāʻau then went and stayed at the Point of **Kaena**. While staying there, he destroyed the ghosts of that place as was his way, by deceiving the ghosts, until all were killed.
>
> They resided here for a while, and then after several days, Pahulu observed that the ghosts of the place were all gone. Pahulu then said to Kaululāʻau and Lono, "The ghosts of the place are finished, perhaps we should go to that side, at **Honopū**, we shall stay there and see if the ghosts have moved to that section to live. For I have gone and looked around all this place, there are no ghosts left. Therefore, we would be mistaken to remain here any longer."
>
> As a result of these words of Pahulu, they went to stay at Honopū, which is there, close to the cliffs of **Pali o Kāholo** cliffs, though **Kaumālapaʻu** is still closer to Kāholo.
>
> They arrived at Honopū and resided there for several nights, but there were no ghosts at this place. Pahulu went all about the places of this region over several nights, from the coast to the uplands, but he did not encounter even one ghost, therefore they had no reason to stay there for long.
>
> Thus, they moved again, and stayed at **Kaunolū**. They stayed there for a long time, for Pahulu saw that this was where the ghosts had congregated.
>
> Therefore Pahulu said to Kaululāʻau, "Let us stay here a while, for I see there atop **Kāhilikalani**, is the place where the ghosts reside. But this is what I have to tell you, Kaululāʻau, that you shall indeed destroy all the ghosts; but you should not kill the god called Kānemakua, for he has an important job here. His work, is that he is the native of this place, it is he who cares for the fish of the sea. He is the god, and if he should be killed, there shall be no other god who can watch over this godly point. So be careful, that you do not destroy the gods of this land as you do your work. From what I have seen, he is perhaps like you in what he does. So let him remain free, that he may be worshiped. Kānemakua will become the god of the fishermen of this place."

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Kaululā‘au thought this was a good idea. So they dwelt there, and he did his work, killing all the ghosts of this place…

Puhi o Ka‘ala (The Blowhole of Ka‘ala)

A significant native tradition of Lāna‘i, describes the naming of a coastal feature in the ahupua‘a of Kamoku, at Kaumālapa‘u. The narrative is set during the time that Kamehameha I encamped on Lāna‘i in the late 1790s. Walter Murray Gibson (one time resident and owner of large tracts of land on Lāna‘i), reportedly learned the account from M. Kekūanāo‘a (who accompanied Kamehameha I on Lāna‘i), and from Pi‘ianai‘a who had also resided on the island during that time. Gibson first published the account in the Hawaiian Newspaper “Nuhou” in 1873. King Kalākaua, retold the story in his book “Legends and Myths of Hawaii” (1888).

The blowhole and cave associated with the traditions (which is also said to contain the remains of Ka‘ala and Ka‘aiali‘i), is one of the famous storied places (wahi pana) on the island of Lāna‘i. The tradition has remained fresh in the minds of Lāna‘i natives, and members of the Kaopuiki family have carried the name Ka‘ala commemorating their ties to the people of old.

March 21, 1873 (page 3)
(Series March 21 – April 25, 1873[3])
Nuhou
Puhiokaala, Or The Spouting Cave Of Kaala
A Native Traditions Recorded by W.M. Gibson
Lanai is an island of many legends, stories and songs… It was a sacred isle, and its central land, named Kealia Kapu, or Tabooed Kealia, was a Pahonua, or place of refuge. Upon its soil and that of the bordering land of Kaunolu are the remains of a great temple, which once was a shelter to the fugitive vanquished warrior—to the servant fleeing from a chief’s anger, and even to the victim escaping from bloody sacrifice. Its ruins are still revered by ancients of the isle. But a little while ago when the Fifth Kamehameha was there, the natives, at his command, moved and hid away its great stone fish god; and in these very days anxious fishers have been known to make their secret offerings within the temple grounds in order to propitiate the olden deities of the seas.

The temple, or Heiau of Kaunolu, is on the southwestern coast of Lanai. Its ruins lie within the mouth of a deep ravine, whose extending banks run out into the sea and form a bold, bluff-bound bay. On the top of the western bank there is a stone-paved platform, called the Kuaha, or Floor of Offering. Outside of this, and separated by a narrow alley way, there runs a broad high wall, which quite encircles the Kuaha. Other walls and structures lead down the bank, and the slope is terraced and paved down to the tide-worn stones of the ever sounding shore.

At the beach there is a break; a great block of the bluff has been rent away by some earth shake, and stands out like a lone tower, divided from the main by a

[3] The tradition was condensed and repeated in the Hawaiian Almanac and Annual of 1906 (pages 122-140).

gulf of the sea. Its high red walls [broken] from their tops, upon to which neither man nor goat can climb. But you can behold the flat summit of this islet bluff portions of ancient work, of altars and walls, and no doubt a part of the mainland temple, to which this fragment once was joined. But man can visit this lone tower’s top no more, and his feet can never climb its overhanging walls.

Inland from the temple there are many remains of the hales, or huts of the people of the past. The stone foundations of their cabins, the enclosures for swine, the round earth ovens, and other traces of a throng of people, cover many acres of beach and hill-side. This was a kulanakauhale, or town, famed as an abode of gods and a refuge for those who fled for their lives; but it drew its people mainly through the fame of its fishing ground, which swarmed with kala, ohua, bonito, and the varied life of the Hawaiian seas.

To this famed fishing ground came the great hero of Hawaii to tax the deep, when he had subdued this and the other isles. He came with his fleets of war canoes, with his faithful koas or fighting men; with his chiefs, and priests, and women, and their trains. He had a hale here. Upon the craggy bluff that forms the eastern bank of the bay there is a lonely pa, or wall, and stones of an ancient halepakui, or fort, over-looking the temple, town and bay. The kanaka of this day speaks of it with subdued voice, and he steps carefully around this ground as he points out to you the Lanai house of the conqueror of the eight lands and seas, Kamehameha the Great.

When this warrior king came to Kaunolu, the islanders thronged to the shore to pay homage to the great chief, and to lay at the feet of their sovereign, as was their wont, and as thy do at this day on the visit of his illustrious grandson[4], the products of the isle: the taro, the yam, the pala, the cocoanut, ohelo, banana and sweet potato. They piled up a mound of food before the door of the king’s pakui, along with a clamorous multitude of fat poi-fed dogs, and of fathom long swine.

Besides this tribute of the men, the workers of the land, the women filled the air with the sweet odors of their floral offerings. The maidens were twined from head to waist with leis or wreathes of the nauu [nā‘ū - Gardenia brighamii], which is Lanai’s own lovely jasmine—a rare gardenia, whose sweet aroma ladens the breeze, and leads you to the bush when seeking it afar off. These garlands were fastened to the plaited pili thatch of the king’s pakui; they were placed on the necks of the young warriors, who stood around the Chief; and around his royal brows they twined an odorous crown of maile.

The brightest of the girlish throng who stood before the dread “Lord of the Isles” was Kaala, or Sweet Scented, whose fifteen suns had just burnished her sweet brown face with a soft golden gloss; and her large, round, tender eyes knew yet no wilting fires. Her neck and arms, and all of her young body not covered by the leafy pa-u, was tinted with a soft sheen like unto a rising moon. Her skin glowed with the glory of youth, and mingled its delicate order of health with the blooms of the groves, so that the perfume of her presence received fittingly the name of Fragrance…

[4] Kamehameha V.

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In the issues of Nuhou dated March 25 and 28, 1873, Gibson relates how Ka‘ala came to fall in love with Ka‘aiali‘i, a famous young warrior of the conquering king, Kamehameha I. Ka‘ala’s father was Opunui, a Lāna‘i chief who survived the battles with Kamehameha, and her mother was Kalani. Angered that Ka‘ala was betrothed to Ka‘aiali‘i, Opunui tricked his daughter into traveling from Kaunolū—stating that her mother was ill in the land of Mahana—he took her instead to Kaumālapa‘u where he forced her into a submarine cavern and let her die, rather than live with the enemy warrior.

Nuhou, March 28, 1873
…Kaala tripped along the stony up-hill path, she glanced backward on her way, to get glimpses of him she loved, and she beheld her chief standing on the topmost rock of the great bluff overhanging the sea. And still as she went and looked, still there he stood; and when on the top of the ridge and about to descend into the great valley, she turned to look her last, and still she sadly saw her loving lord looking up to her.

The silent sire and the weeping child soon trod the round green vale of Palawai. She heeds not now to pluck, as was her wont, the lowers in her path; but thinks how she shall stop awhile, as she comes back to twine the salvia and ilima in a wreath for her dear lord’s neck. And thus this sad young love trips along with innocent hope by the moody Opunui’s side.

Nuhou, April 1, 1873
They pass through the groves of Kalulu and Kumoku [Kamoku], and now the man swerves from the path leading to Mahana and turns his face again seaward. At this the sad and silent child looks up into the face of her grim and sullen sire and says: “Oh, father, we shall not find mother on this path, but we shall lose our way and come to the sea once more.”

“And thy mother is by the sea, by the bay of Kaumalapau. There she gathers limpets on the rocks. She has dried a large squid of Palawai for thee. She has pounded some taro of Maunalei and filled her calabash with poi, and would feed thee once more. She is not sick; but had I said she was well, thy lord would not have let thee go; but now thou art on the way to sleep with thy mother by the sea…”

Gibson’s lengthy and prose-laden account describes how Ka‘ala was forced into the submarine cavern on the southern lava shelf of Kaumālapa‘u Bay, and of Ka‘aiali‘i’s efforts in locating her. In the issue of Nuhou published on April 25, 1873, readers learn that Ka‘ala is near death when Ka‘aiali‘i finally locates her and he himself, chooses to die with her, rather than live.

Nuhou, April 25, 1873
[Ka‘aiali‘i] …cries out in his woe there are other voices in the cave. First he hears the voice of Ua speaking to him in soothing tones as she stoops to the body of her friend; and then in a little while he hears the voice of his great leader calling to him and bidding him stay his grief. “Oh King of all the Seas,” said Kaaialii standing up, and leaving Kaala to the arms of Ua, “I have lost the jasmine thou gavest me; it is broken and dead, and I have no more joy in life.”

“What,” said Kamehameha, “art thou a chief, and would cast away life for a girl? Here is Ua, who loves thee; she is young and tender like Kaala. Thou shalt have her, and more if thou dost want. Thou shalt have besides the land I gave the in Kohala, all that thou shalt ask of Lanai. Its great valley of Palawai shall be thine; and thou shalt watch my fishing grounds of Kaunolu, and be the Lord of Lanai.”

“Hear, oh Chief of Chiefs,” said Kaaialii, “I gave to Kaala more of my life in loving her, and of my strength in seeking for her than ever I gave for thee in battle. I gave to her more of love than I ever gave to my mother, and more of my thought than I ever gave to my own life. She was very breath, and my life, and how shall I live without her?

“Her face, since first I saw her has been ever before me; and her warm breasts were my joy and repose; and now that they are cold to me, I must go where her voice and love have gone. If I shut my eyes now I see her best; therefore let me shut my eyes for evermore.” And as he spoke, he stooped to clasp his love, said a tender word of adieu to Ua; and then with a swift strong blow, crushed in brow and brain with a stone.

The dead chief lay by the side of his love… and many were the kanikaus or chants of lamentation for the two lovers, who sleep side by side in the Spouting Cave of Kaala.

A Visit to Puhi o Ka‘ala in 1881

Walter Murray Gibson settled on Lāna‘i in 1861, initially as a representative of the Mormon Church and Brigham Young. He was excommunicated from the church in 1864, and eventually became the owner or major lessee of large sections of Lāna‘i until his death in 1888. During his tenure, Gibson compiled native traditions of Lāna‘i, recording knowledge of place names, practices and residents of the island. In addition to numerous communications regarding land title and leasehold interests, Gibson also published many accounts in letters and in the Hawaiian newspapers. In 1881, Gibson published an account of a visit to Puhi o Ka‘ala by some European guests he hosted. He wrote:

[Louis Lajos, a guest of W.M. Gibson, was reportedly a refugee of some rank from Hungary. He met up with Gibson and traveled to Lāna‘i. The narratives excerpted below describe features of the leeward coast of Lāna‘i.]

…A whale boat, (Kalula) that usually ran to the neighboring islands from the northern side of the island was now at Kaunolu on the southern side engaged to take a freight of sheep from that point to the neighboring market at Lahaina, and the ranchero, desiring to go himself on the boat, had come to get Lono and Papula [Papalua], the two most trusty boatmen of the island, to accompany him, and had also made arrangements to have Louis go along with them.

The two Hawaiians, ever ready for adventure on the water, and much attached to their employer made no demur on leaving their feast; and rode with the ranchero and Louis down the rocky slopes of the southern side of the island to the inlet of Kaunolu [is found Kaumālapa‘u].

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Near this point, had been observed a remarkable spout or blow bole beneath the rocky bluffs of the beach; and the ranchero remarking that they had yet some hours of daylight before them, they would pay a visit to this sea-spout, which was one of the remarkable natural curiosities of these islands. When they reached the rocky brink, and stood within the spray of the great spout, they looked down upon a turmoil of water, boiling, seething, and white with the foam of an ever-fretful sea. Lono had at a word from the ranchero stripped and lunged into the angry gulf, and down he went into the depths of the green translucent waters and disappeared. Many minutes had elapsed; and Louis looked with amazement for his reappearance; but still the waters boiled and Lono remained in the deep. The ranchero smiled and said Lono had gone to visit a sea-god in his cave.

After some time, Lono re-appeared on the surface, bearing in his hand what Louis recognized as a human bone. And now the ranchero explained that at this place was a submarine cave, such a one in fact, as Byron described in fancy, in his poem of the Island." And as I understand you are a good swimmer, plunge in with Lono and examine it for yourself, and give me perhaps a better description than I have yet received from the natives."

The courageous spirit of Louis would not allow him to hesitate. He stripped and plunged in after Lono, like Torquil following Neuha, and keeping near his guide be breasted his way through the whirling waters, dived underneath the archway of a grot beneath the sea, and after a while stood up upon a beach, within a spacious submarine chamber, vaulted over with a crystallized roof, and dimly and weirdly lighted up by the green glare from the inflowing sea, and from a few rays of light let in through some interstices in the roof, from the upper world. Louis found a broad space of floor, and in the rocky wall were many projecting ledges, and upon one he found two human skeletons, whence Lono had removed a bone which he now returned. The young man having watched a while the great crabs, and puhis or eels in the cone, returned to his patron who related the following particulars about the Cave of Kaala.

In the time of the conquests of Kamehameha, he visited Kaunolu, a famous fishing ground.

Here are the remains of the best preserved heiaus, or rude temple of the ancient times; and here are the stone remains of a noted kulanakauhale, or City of Kamehameha. This was also a paahonua, or sacred place of refuge. There was then a great population at this point. Many games, the hula and the mock fights were performed in the presence of the Conqueror. A beautiful girl, with a smooth, brown, shining skin, and with taper fingers like “nehus,” the tiny minnows of the sea, took part in the games, and won the heart of Kaaialii. one of the captains of the Conqueror. He prayed that she be given to him, and his sovereign’s consent was granted. But another captain, Mailou sought her, and the great chief left the settlement of the question between his captains to the arbitrament of their thews and sinews; and Kaaialii broke the backbone of Mailou. The successful champion had taken possession of his love, when Opunui, the father of the girl, who had pledged her to a powerful chief of a neighboring island, not daring to remove her by any force, or even exercise of parental authority, from the arms of the warrior

captain, feigned a story of the dangerous sickness of the mother of the girl, who lived in the interior of the island, obtained Kaaialii's consent for the child to pay a visit to the dying parent. But Opunui led her to this rocky brink, and plunging into the sea with the terrified girl, left her a prisoner in the cave, from which her weak arms would not allow her to escape. The father intending to remove her, when the great chief and his captains and men had left the island.

Kaaialii learning that he had been deceived roamed about the island in a distracted state, in search of the woman he loved so much; and guided by the instruction of an old priest, came to this place, plunged into the sea, and entered the cave, to find his beauteous Kaala, in a dying state, overcome with exposure, terror, and attacks of the ferocious puhis, or sea eels. She died in his arms, and, while in the presence of Kamehameha, and his chiefs, who had followed the despairing lover, he beat in his brow by a crushing blow with a stone, and the great Conqueror ordered the remains of the two lovers to be placed side by side, on the ledge where they remain to this day…

"…The cave of Kaala is a witness, and many other scenes and incidents in these islands have witnessed, that the Hawaiian is fitted to be a noble and faithful race, and deserves a most faithful and fraternal cooperation at the hands of his white brother…" [Pacific Commercial Advertiser, April 9, 1881:1]

Named Localities of Kamoku Ahupuaʻa

Hawaiians have a deep love and connection to the bio-cultural landscape. In their cosmology, everything is connected, and kānaka (people) are part of the geneology of the living environment. The depths of this relationship have been a part of Hawaiian mele (chants, poems and songs) time immemorial. Through their mele, they express their aloha for the environment, loved ones, and life experiences. One such mele was composed in 1880, for Maea, a Lānaʻi native who lived at Kahalepalaoa, and frequented the Kōʻele-Kamoku uplands. Named locations and descriptions of the environment are offered in this mele as memories of experiences and favored places in the upland Kamoku.

...Mai ka makani Kehau	...From the dew-laden breezes
o Kihamanienie	of Kihamanienie
Makani popokapa o Kaiholena	The wind that bundles up the kapa
Hoomaha aku i kahi wai ono	One finds rest at the place of the
o Pulehuloa	sweet spring at Pulehuloa
Kuu hoa i ka piha kanaka nui o	My companion in the throng of people
Kihamanienie...	at Kihamanienie
Kuu hoa i ka wai ka kehau kakahiaka	My companion stiking the morning dew
E hoala mai ana i ka hia moe ua ao e	Awaken from your sleep for it is light
Kuu hoa i ke anu maeele oia aina	My companion in the dark, damp cold
i noho ia	of the land in which we lived
Kuu hoa i ka wai o Kapano me	My companion at the springs of Kapano
Kaiholena...	and Kaiholena...

[Nupepa Ko Hawaii Pae Aina, Kekemaba 4 & 11, 1880:4.
‘‘He Kanikau no Maea.” Translator, Kepā Maly]

REF-199

In the larger collection of historical documentation, there are more than 300 place names on Lānaʻi that survived the passing of time. The occurrence of place names demonstrates the broad relationship of natural landscape to the culture and practices of the people. The place names extend from the ocean and shore line of Lānaʻi to the summit of the island. These names demonstrate extensive Hawaiian familiarity with the resources, topography, sites and features of the entire island. Coulter (1935) observed that Hawaiians had place names for all manner of feature, ranging from "outstanding cliffs" to what he described as "trivial land marks" (Coulter 1935:10). History tells us that named locations were significant in past times, and it has been observed that "Names would not have been given to [or remembered if they were] mere worthless pieces of topography" (Handy and Handy with Pukui, 1972:412).

In ancient times, named localities served a variety of functions, including — (1) triangulation points such as koʻa (land markers for fishing grounds and specific offshore fishing localities); (2) residences and areas of planting; (3) water sources; (4) trails and trail-side resting places (oʻioʻina), such as a rock shelter or tree shaded spot; (5) heiau or other features of ceremonial importance; (6) sources of a particular natural resource or any number of other features; or (7) a record of a particular event or practice (e.g., a planting area, where koʻi or adzes were made) that occurred in a given area.

In 1902, W.D. Alexander, former Surveyor General of the Kingdom (and later Government) of Hawaiʻi, wrote and account of "Hawaiian Geographic Names" (1902). Under the heading "Meaning of Hawaiian Geographic Names" he observed:

> It is very difficult, if not impossible, to translate most of these names, on account of their great antiquity and the changes of which many of them have evidently undergone. It often happens that a word may be translated in different ways by dividing it differently. Many names of places in these islands are common to other groups of islands in the South Pacific, and were probably brought here with the earliest colonists. They have been used for centuries without any thought of their original meaning… [Alexander 1902:395]

Table 1 below, is a list of selected place names and features recorded through native lore, historic land claims, and surveys for the ahupuaʻa of Kamoku. The site numbers when given are those assigned by Kenneth Emory (1924) following his archaeological field work on Lānaʻi in 1921-1922.

Table 1. Gazetteer of Selected Place Names in the Ahupuaʻa of Kamoku

Place Name	Pronunciation	Interpretation (and Emory's Site Numbers):
Anapuka	Ana-puka	Arch, a coastal site in Kamoku Ahupuaʻa (Site 68).
Hokuao	Hōkūao	Morning star - Venus, Kamoku Ahupuaʻa (Site 84).
Hoopapalani	Hoʻopāpā-lani	To touch the heavens (interpretive). Kamoku Ahupuaʻa (Site 262).

Hulupuuniu	Hulu-puʻu-niu	Bristly hill (interpretive), Kamoku Ahupuaʻa (Site 78).
Iwiole	Iwi-ʻole	No bones, or no boundary wall (Site 87), Kamoku. Named for a native tenant who lived on the land below Kōʻele, in the early to mid 1800s.
Ka Ili o Lono Iliolono	ʻIli o Lono	The land section of Lono, site of an ancient heiau of the agricultural class, near the former house site of Papalua, and boundary point between Kalulu and Kamoku Ahupuaʻa (Boundary Commission records). Point where the mauka-makai trail crosses out of Kalulu into Kamoku (Site 25). Now covered by the airport.
Kaiholena	Ka-iholena	The iholena banana tree (Sites 89). A valley above Kōʻele, Kamoku Ahupuaʻa. A favored region of Lānaʻi, where enough water could be found to tend cultivated crops (Boundary Commission records).
Kalamaiki	Kalama iki	The torch (little section), Kamoku Ahupuaʻa (Site 71).
Kalamanui	Kalama nui	The torch (larger section), Kamoku Ahupuaʻa (Site 72).
Kamoku	Ka-moku	The district or cut off section. One of thirteen ahupuaʻa that make up the island of Lānaʻi (Boundary Commission records).
Kapano	Ka-pano	The darkness (describing dark clouds which roll down the valley. Situated on the boundary between Kamoku and Kalulu Ahupuaʻa (Site 30).
Kaumaikahoku	Kau-mai-ka-hōkū	The setting star (Site 79). An open plane in Kamoku Ahupuaʻa.
Kaumalapau	Kaumālapaʻu	Soot placed in the planting field that has been laid to rest (Site 73). A bay and ancient village site. Also an ʻili, land division within the ahupuaʻa of Kamoku that runs inland several miles (Boundary Commission records).
Kawaiu	Ka-wai-ū	The weeping water or spring (Site 33). A valley forming part of the boundary between

REF-200

		Kamoku and Kalulu Ahupuaʻa
Keaaku	Keʻaʻakū	Interpretive, The brave or upright one. A small valley that joins Kapano Gulch on inland side of Pūlehuloa, Kamoku Ahupuaʻa (Site 81) (Boundary Commission records).
Keahialoa	Ke-ahi-ʻā-loa	The long burning fire (Site 75). A site in Kamoku Ahupuaʻa near the boundary of Kalulu, below Puʻu Nānā i Hawaiʻi.
Keone	Ke-one	The sandy area (Site 69). A cove along the coast of Kamoku Ahupuaʻa.
Kiei	Kiei	To peer or peak (Site 70). A cove along the coast of Kamoku Ahupuaʻa.
Kihamaniania Kihemanienie	Kiha-māniania Kihe-mānienie	To sneeze and shudder/shiver (Site 85), Kamoku Ahupuaʻa. Formerly a place associated with priestly lines, reportedly a training area of warriors in the time of Kamehameha I (Abraham Piʻianāiʻa). A hill with the ruins of a Protestant church and school house (construction started in 1840, completed in 1843). Also the site of a historic cemetery.
Koele	Kōʻele	Black or darkness drawn down (Site 88), Kamoku Ahupuaʻa. Said to be named for the heavy, moisture laden clouds which would come down the mountain gulches. These clouds and fog were so thick that one could not see but a few feet in front of oneself (Daniel & Hattie Kaopuiki).
Kuanaipu	Ku-a-nā-ipu	Interpretive, Upright gourds, a section of land between Puʻu Nānā i Hawaiʻi ʻIli o Lono, near the Kamoku-Kalulu Boundary (Boundary Commission Records).
Lalakoa	Lālā-koa	Acacia koa branches, an ʻili of Kamoku Ahupuaʻa (Site 83). Site of the 1917 Gay family home.
Makapala	Maka-pala	Ripe, softening fruit (Site 82). Situated on edge of valley between Kamoku and Kalulu Ahupuaʻa.
Naupaka	Naupaka	The Scaevola plant (Site 67). A cove along the coast of Kamoku Ahupuaʻa.

Nininiwai	Ninini-wai	Dripping water (Site 86). Formerly one of the important agricultural areas for old Lānaʻi natives. In 1802, a Chinese man named Wong Chun planted sugar for processing in Nininiwai. Later in 1910, the first pineapple planted for commercial purposes were planted in this land area.
Opu	Ōpū	Clump (mound of plants), point at boundary of Kamoku, Paomaʻi, Kalulu and Mahana Ahupuaʻa (Site 37).
Paliamano	Pali-a-mano	Cliff of Mano, boundary valley between Kamoku and Kaʻā Ahupuaʻa.
Pueo	Pueo	Owl. An ʻili of land in Kamoku Ahupuaʻa, near the boundary with Kalulu.
Puhiokaala	Puhi o Kaʻala	Blow hole of Kaʻala, the famous undersea cave from the tradition of Kaʻala and Kaʻaialiʻi, situated on the Kalulu shoreline of Kaumālapaʻu Bay.
Pulehuloa (Puupulehuloa)	Pūlehu-loa	To broil (cook) for a long time (Site 80). Hill and bank that forms a northern wall of Pālāwai Crater, near the Kamoku-Kalulu boundary. Not far from Keliihananui's house (Boundary Commission records).
Puukauila	Puʻu kauila	Kauila tree hill (Site 74). A boundary point between Kamoku and Kalulu Ahupuaʻa.
Puukoa	Puʻu koa	Acacia koa hill (Ste 76). An elevated rise in Kamoku Ahupuaʻa (Site 76).
Puunanaihawaii	Puʻu Nānā i Hawaiʻi	Hill to look at Hawaiʻi (Site 77), a high prominence in Kamoku Ahupuaʻa close to the boundary with Kalulu (Boundary Commission records).
Puunene	Puʻu-nēnē	Goose hill (Site 90). An elevated area near the upper boundary between Kamoku and Kalulu Ahupuaʻa (Site 90).

REF-201

NATIVE LAND TENURE IN KAMOKU AHUPUAʻA

In the centuries following initial Polynesian settlement of the Hawaiian Archipelago, Hawaiian land use and resource management evolved and adapted to the wealth and limitations of the natural resources found on each of the islands. By the 1500s, the mokupuni (islands) were subdivided into land units of varying sizes. The largest division was the mokuoloko (district), of which two occur on Lānaʻi, the "kona" (leeward) and the "koʻolau" (windward) districts.

The mokuoloko were further divided into manageable units of land, and were tended by the makaʻāinana, or people of the land (cf. Malo 1951:63-67). The next land division, though smaller, was perhaps the most important to traditional Hawaiian lifeways, was the ahupuaʻa. The ahupuaʻa are subdivisions of land whose boundaries were marked by altars with images or representations of a pig placed upon them, thus the name, "ahu-puaʻa" or pig-altar. Generally, ahupuaʻa are land areas that extend from the mountains or some other feature of geological significance (e.g., a ridge, valley, hill or crater) to the ocean fisheries fronting the land unit. The boundaries of the ahupuaʻa were generally defined by cycles and patterns of natural resources occurring within the lands (cf. Lyons, 1875; In The Islander).

Like the districts, the ahupuaʻa were also divided into smaller manageable parcels. Among the smaller land parcels were the ʻili and ʻili lele, detached parcels with resources in various environmental zones (such as salt making ponds on the shore, and māla ʻuala or sweet potato gardens); kīhāpai, paukū, moʻo, and kuaīwi (open- and wall-lined gardens plots); māla (or dry land agricultural parcels); and kōʻele (agricultural parcels worked by commoners for the chiefs). These are among the small land units which were devised by the ancient Hawaiians as a means of managing resources and work efforts. These smaller parcels were inhabited and/or managed by the makaʻāinana (people of the land) and their extended families—the ʻohana.

As long as sufficient tribute was offered and kapu (restrictions) were observed, the common people that lived in a given ahupuaʻa had access to most of the resources necessary to sustain them from mountain slopes to the ocean. These access rights were almost uniformly tied to residency on a particular land, and earned as a result of taking responsibility for stewardship of the natural environment, and supplying the needs of ones' aliʻi (cf. Malo 1951:63-67; Kamakau 1961:372-377).

In this system, entire ahupuaʻa, or portions of the land were generally under the jurisdiction of appointed konohiki or lesser chief-landlords, who answered to an aliʻi-ʻai-ahupuaʻa (chief who controlled the ahupuaʻa resources). The aliʻi-ʻai-ahupuaʻa in turn answered to an aliʻi ʻai moku (chief who claimed the abundance of the entire district). Thus, ahupuaʻa resources supported not only the makaʻāinana and ʻohana who lived on the land, but also contributed to the support of the royal community of regional and/or island kingdoms. This form of district subdividing was integral to Hawaiian life and was the product of strictly adhered-to resources management planning.

The land provided the fruits and vegetables for the diet, and the ocean provided most of the protein. In communities with long-term royal residents, kapu and divisions of labor—such as agriculture, fishing, bird catching, building of structures, canoe making and the likes— came to be strictly adhered to.

Being a smaller island, with limited water resources (thus, a limited population), the island of Lānaʻi seemed always to have been in the shadow of Maui—environmentally and politically. Lānaʻi's chiefs were under the jurisdiction of Maui's high chiefs. As the development of the land management system occurred on Maui, in which ahupuaʻa and smaller political, religious and subsistence divisions were established, Lānaʻi was also divided into its ahupuaʻa. Traditional lore and knowledge relate that the island was divided into 13 ahupuaʻa. But on Lānaʻi, an anomaly occurred in the designation of its ahupuaʻa—three of the land divisions cross the entire island, running from the windward to leeward coast; and a fourth ahupuaʻa crosses from the windward to the leeward side of the island as a lele (detached parcel of land), but does not apparently run all the way to the shore. It is assumed that this form of subdivision related to the stressed nature of Lānaʻi's environment, and ensured residents access to all the resources—from coast to mountains—necessary to sustain viable populations, and adapt to seasonal variations in weather, rainfall, growing conditions, and ocean conditions.

In the period leading into the middle 1840s, the Hawaiian system of land tenure was undergoing radical alterations as laws were developed to offer rights of access and property to kingdom residents. The laws set the foundation for implementing the Māhele ʻĀina of 1848, which granted fee-simple ownership rights to the hoaʻāina (common people of the land, native tenants).

As the Māhele evolved, it defined the land interests of Kauikeaouli (King Kamehameha III), some 252 high-ranking Aliʻi and Konohiki (including several foreigners who had been befriended by members of the Kamehameha line), and the Government. As a result of the Māhele, all lands and associated fisheries in the Kingdom of Hawaiʻi came to be placed in one of three categories: (1) Crown Lands (for the occupant of the throne); (2) Government Lands; and (3) Konohiki Lands. The "Enabling" or "Kuleana Act" of the Māhele (December 21, 1849) further defined the frame work by which hoaʻāina (native tenants) could apply for, and be granted fee-simple interest in "Kuleana" lands (cf. Kamakau in Ke Au Okoa July 8 & 15, 1869; 1961:403-403). The Kuleana Act also reconfirmed the rights of hoaʻāina to: access and subsistence, and collection of resources from mountains to the shore, necessary for their well-being, within their given ahupuaʻa. Though not specifically stated in this Act, the rights of piscary (to fisheries and fishing) had already been granted and were protected (cf. Kingdom Laws of 1839-1841).

As a part of the evolving laws, the chiefs who secured title to ahupuaʻa were required to record and publish formal notices of the kapu fish, and by other laws, also their kapu trees. In 1848 and 1852, Pali, a chief and Konohiki on Lānaʻi, who also resided in Kamoku filed his claim for both kapu fish and trees.

Island of Lānaʻi
Interior Department Lands (1848):
The lands, prohibited fish and the prohibited wood
and the Konohikis in the Seventh District

Aina	Konohiki	Ia Hoomalu	Laau Hoomalu
…Kaumalapau	Pali	Maomao	Koko…

[Hawaii State Archives – Int. Dept. Lands, 1848].

REF-202

August 26, 1852
Noa Pali; to Keoni Ana, Minister of the Interior:
…Forbidden fish of the konohiki and the prohibited woods. According to law.

Konohiki:	Land;	Fish:	Wood.
…Pali	Kamoku,	Uhu,	Koko…

Your highness, you straighten this out in your office… [HSA Int. Dept. – Lands]

Claims Filed for Kuleana in the Māhele ʻĀina on Lānaʻi

A thorough review of all records compiled as a part of the Māhele ʻĀina of 1848, with subsequent actions of the Land Commission and Government through issuance of Royal Patents on the Awards for Lānaʻi was been completed[5]. The following notes summarize the claims from Lānaʻi:

- **A total of 110** claims which could be verified for Lānaʻi were recorded. These include both chiefly and commoner/native tenant claims.
- **105** claim records were located in the volumes of the Native Register.
- **88** claim records were located in the volumes of the Native Testimony.
- **2** claim records were located in the volumes of the Foreign Register.
- **21** claim records were located in the volumes of the Foreign Testimony.
- **64** of the claims were surveyed and recorded in the Māhele Award Survey Books.
- **51** claim records were recorded in the volumes of the Royal Patent Books.

The combined claims from Lānaʻi, represent 331 separate documents (some overlapping in records of the Native and Foreign Books):

- **56** claims were awarded.
  Of those awarded, five claimants were chiefly awardees, who received entire ahupuaʻa.
- **51** awards made to native tenants and individuals of lower chiefly lineage, totaled a little over 600 acres of the approximately 89,000 acres of land on Lānaʻi.

Digital copies of all Māhele ʻĀina Records from Lānaʻi may be viewed at https://www.lanaichc.org/mahele-aina.html.

[5] In the year 2000, Kepā & Onaona Maly (dba Kumu Pono Associates LLC) digitized the entire collection of records for the Māhele ʻĀina (that is, all volumes of the Register, Testimony, Mahele Award Books and Royal Patent Books). Most of the records were recorded in Hawaiian, and until recently they have not been completely indexed. It was in this digitized collection that all records cited were located.

Summary of Claims for Kuleana in Kamoku Ahupuaʻa

Kamoku (literally, "the district") Ahupuaʻa contains 8,291 acres (Figure 2). It is situated on the kona (leeward) side of Lānaʻi, and is bounded on the north by Kaʻā Ahupuaʻa, on the northeast by Paomaʻi Ahupuaʻa, and on the south by Kalulu Ahupuaʻa. Kamoku was noted for its upland forest and springs, and areas were developed by the Hawaiians into an extensive forested dry land agricultural system. It also had a sheltered bay at Kaumālapaʻu, forming the largest break in an otherwise steep-cliffed shoreline. Temporary and long-term residences, situated along the sheltered coves allowed access to the rich fisheries fronting the ahupuaʻa. Pali was the Konohiki of Kamoku under the Kamehamehas, and at the time of the Māhele, Kamehameha III retained the ahupuaʻa as a Crown Land. Uhu (parrot fish) was the kapu fish, and the koko (Euphorbia spp.) tree was the kapu wood. Oleloa, a woman of chiefly lineage, claimed the important spring-watered bay of Kaumālapaʻu (an ʻili of Kamoku), but relinquished it to the government during the Māhele. An ancient ala piʻi uka (mauka-makai trail) crossed between Kamoku and Kalulu Ahupuaʻa and ran down to the shore at Kaumālapaʻu. Table 2 identifies the four claims and awards for kuleana in the ahupuaʻa of Kamoku.

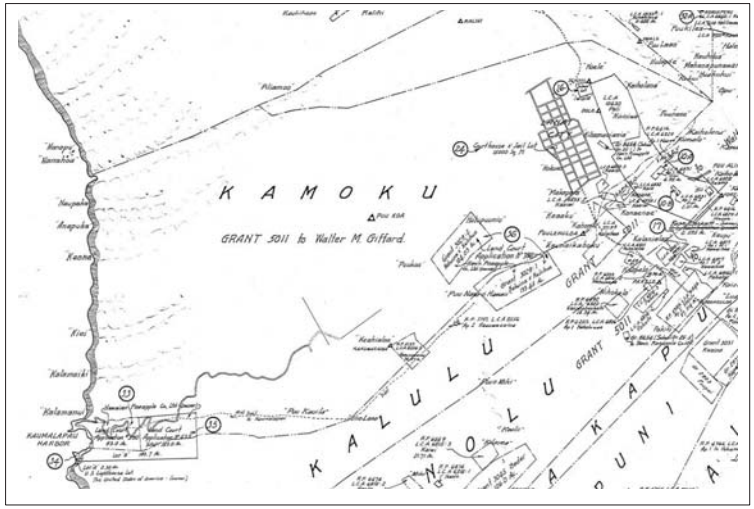


Figure 2. Portion of Map 1, Land Court Application No. 862 – Kamoku Ahupuaʻa Identifying Locations of Kuleana Parcels, Royal Patent and Land Grants (Note Koele Situated near the upper right-hand of this portion of the map)

REF-203

Table 2. Native tenants of Kamoku Ahupuaʻa who filed claims for kuleana (fee-simple property rights) in 1847-1855

L.C.A. Helu	Claimant	Ahupuaa	Ili
3719B	Kalaihoa	Kamoku Kalulu	—
6833	Kaaiai	Kamoku Kalulu	Elialii
8556	Kaauwaeaina	Kamoku Kalulu	Pueo Kapano uka
10630	Pali	Kamoku	Kaumalapau Mooloa Makaliilii Kalelelua Iwiole Aumoku

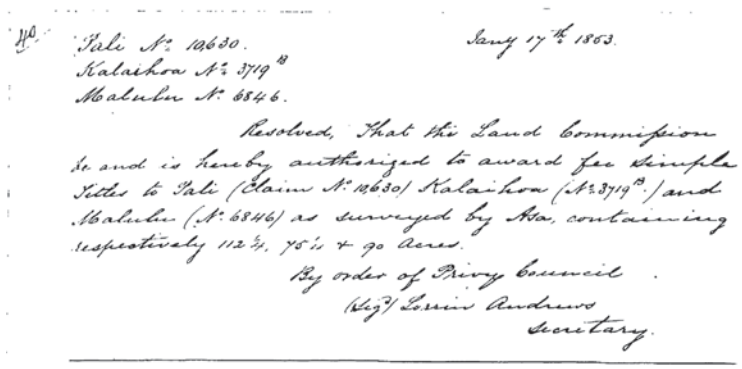
Documents of Native Claimants for Kuleana in Kamoku During the Māhele ʻĀina

The documents filed as a part of the Māhele ʻĀina provide us with glimpses into the lives and practices of native tenants who lived during the period of transition from the old land system to one patterned after the new western system.

Testimonies from konohiki (landlords) identify chiefly claimants for lands in Kamoku Ahupuaʻa. On February 7, 1848, Oleloa (w.) reliquished the ʻili of Kaumālapaʻu (covering land and fishery resources in Kamoku Ahupuaʻa to the King (Buke Mahele, 1848:106). Subesequent records of the Boundary Commission (1876-1877) and of leases on Crown and Government Lands, recorded between the 1860s to 1907, designated Kamoku Ahupuaʻa as a Crown Land asset.

The records that follow include digital copies of the original Māhele documents for cited claims, along with verbatim or summary English translations of those records prepared by Kepā Maly (the Māhele documents are cited as unnumbered figures).

Helu 3719 B
Kalaihoa
Kalulu (with a portion of Kamoku)
Foreign Testimony 15:40


Pali No. 10630.
Kalaihoa No. 3719 B
Malulu No. 6846.

Jany 17th 1853.

Resolved, That the Land Commission be and is hereby authorized to award fee simple Titles to Pali (Claim No. 10630) Kalaihoa (No. 3719 B.) and Malulu (No. 6846) as surveyed by Asa, containing respectively 112 1/4, 75 1/10 & 90 Acres.

By order of Privy Council
(Sig.) Lorrin Andrews
Secretary.

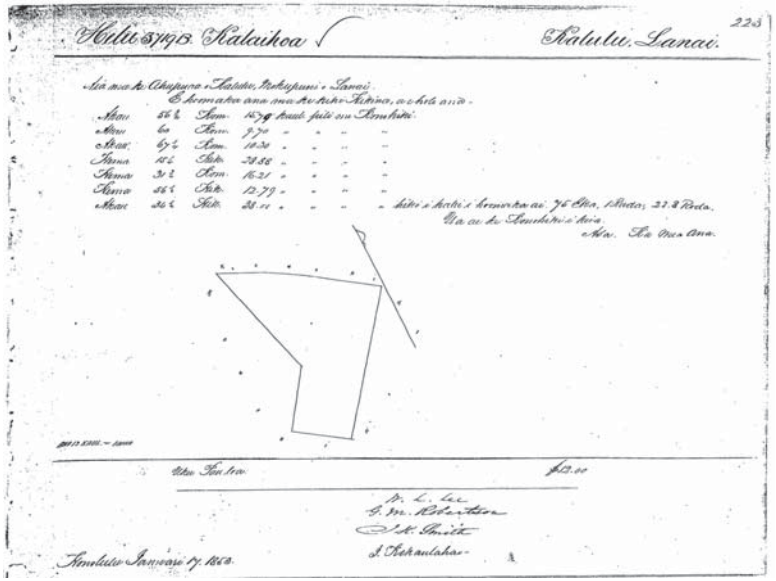
Jany. 17th, 1853.

Resolved, that the Land Commission be and is hereby authorized to award fee simple titles to Pali (Claim No. 10,630), Kalaihoa (No. 3719 B) and Malulu (No. 6846) as surveyed by Asa, containing repsectively 112 1/4, 75 1/10 & 90 Acres.

By order of Privy Council
(Sig.) Lorrin Andrews,
Secretary.

REF-204

Helu 3719 B
Kalaihoa
Kalulu (with a portion of Kamoku)
Mahele Award Book 7:223


Helu 3719 B. Kalaihoa. Kalulu, Lanai.

223

Aia ma ke Ahupuaa o Kalulu, Makipuni o Lanai.
E hoomaka ana ma ke Akau Kihina, a o hele aela -

Akau	58½	Hema	15.79	kauli pili ma	Komohiki	
Akau	60	Hema	9.70	"	"	"
Akau	67½	Hema	10.30	"	"	"
Hema	15½	Hik.	28.88	"	"	"
Hema	34½	Hema	16.31	"	"	"
Hema	66½	Hik.	12.79	"	"	"
Akau	34½	Hik.	38.00	"	"	"

hiki i kuhi i hoomaka ai. 75 Eka, 1 Mala, 22.8 Pola.
Ua ae ia Komohiki i keia.
Aloha. Ke Mea Aina.

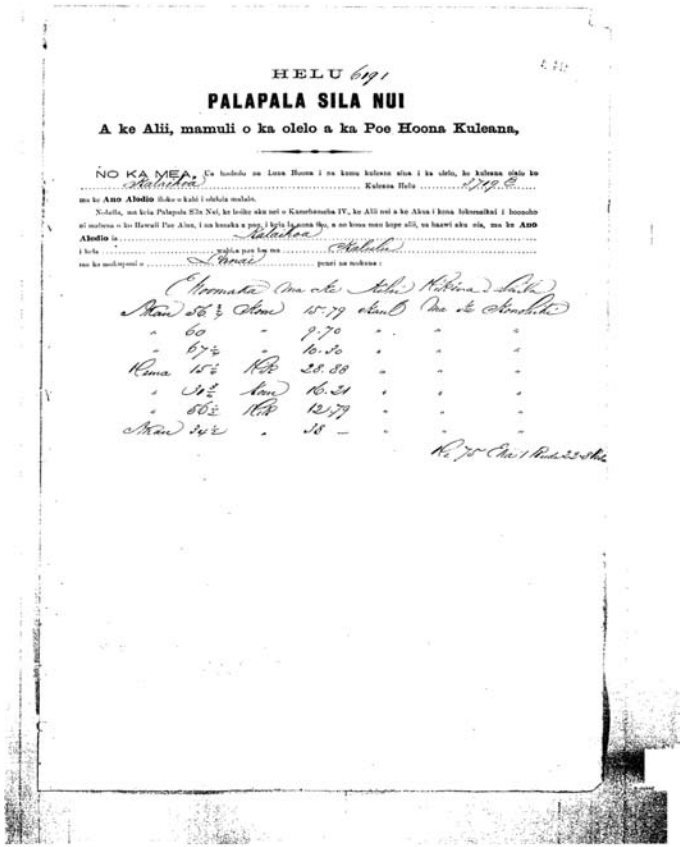
Helu Kuleana.

$12.00

W. L. Lee
G. M. Robertson
J. K. Kaulia
J. Kekaulahao

Honolulu Ianuari 17. 1860.

Royal Patent No. 6191
Kalaihoa
Kalulu
Book 23:549-550


HELU 6191

PALAPALA SILA NUI

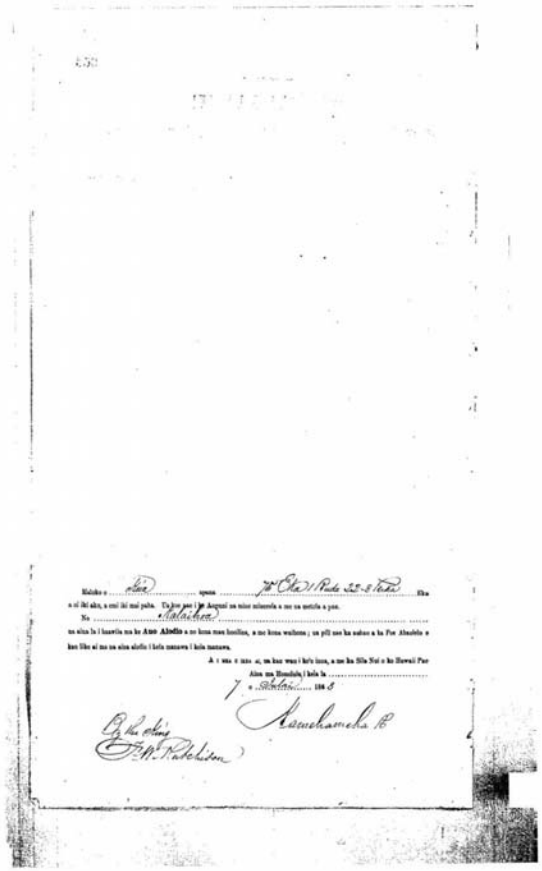
A ke Alii, mamuli o ka olelo a ka Poe Hoona Kuleana,

NO KA MEA, Ua hoolilo ia Luna Hoona i na kuma kuleana aina i ka olelo, ia kuleana ainaka ia Kalaihoa Kuleana Helu 3719 B
ma ka **Ano Alodio** ilaka o kahi i olelola malalo.

N-kalla, na keia Palapala Sila Nui, ke loiloi aku nei o Kamehameha IV., ke Alii noi a ke Akua i kona lokomaikai i hoonoho ai maluna o ko Hawaii Poe Aina, i na kuaaka a pau, i hiis ia aina ilaa, a no kona mau hope alii, ua haawi aku ola, ma ke **Ano Alodio** ia Kalaihoa
i kela Kalulu
ma ke mokupuni o Maui penei na mokuna :

E hoomaka ma ke Akau Kihina a hele
Akau 58½ Hema 15.79 kauli pili ma ke komohiki
" 60 " 9.70 " " "
" 67½ " 10.30 " " "
Hema 15½ Hik. 28.88 " " "
" 34½ Hema 16.31 " " "
" 66½ Hik. 12.79 " " "
Akau 34½ " 38 — " " "
No 75 Eka 1 Rood 22.8 Ko

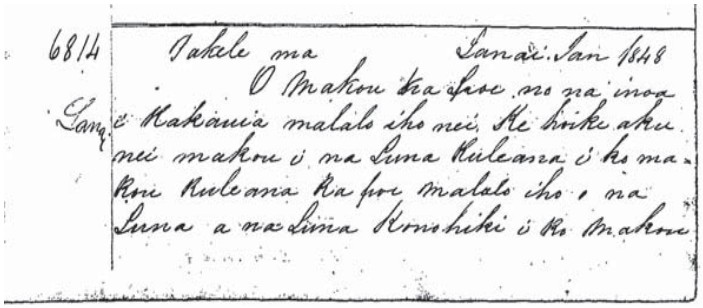
REF-205



Helu 6191
Kalaihoa

Ahupuaa of Kalulu [with section of Kamoku]… 75 Acres, 1 Rood, 22.8 Rods…

Helu 6814 with 6833
Pakele ma (et al. – 33 claimants)
Kaunolu
Native Register 6:424-426


6814 Pakele ma Lanai. Jan 1848
O Makou ka poe no na inoa
Lanai i Kakauia malalo iho nei. Ke hoike aku
nei makou i na Luna Kuleana i ko ma-
kou Kuleana ka poe malalo iho i na
Luna a na Luna Konohiki i ko makou

Lanai. Jan 18, 1848.

We, are the people whose names are written below. We hereby make known to you Commissioners who Quiet Claims, our properties, being people below overseers and the Konohiki, our ili land rights, kula properties, fishery claims, moku mauu (grass land/pasture sections), and loi claims.

Here are the names, the claims and pasture lands…

…6833 Kaaiai Kalulu…

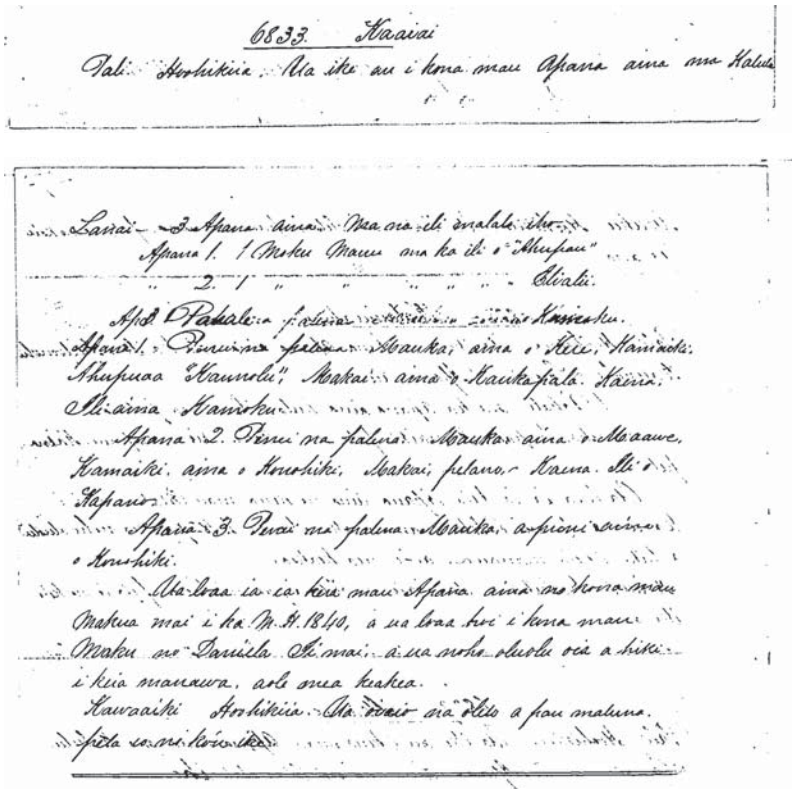
…Not all the kinds of ili lands are described here. Some of the ili extend from the Mountain to kula lands and on to the sea. And some are only kula paoo (dry land sweet potato patches).

REF-206

6833
Kaaiai
Kalulu
Native Register 6:425

Part of group claim under Pakele et al. See Helu 6814.

Helu 6833
Kaaiai
Kalulu & Kamoku
Native Testimony 13:272-273



6833. Kaaiai

Pali. Hoohikiia. Ua ike au i kona mau Apana aina ma Kalulu

Lanai – 3 Apana aina. Ma na ili malalo iho.
Apana 1. 1 Moku Mauu ma ka ili o "Ahupau"
" 2. 1 " " " " " Elialii.
Aole Pakele a pau [illegible] ma Kamoku.
Apana 1. Penei na palena. Mauka, aina o Keie, Kamaiki.
Ahupuaa "Kaunolu", Makai aina o Kaukapala. Kaena.
Ili aina Kamoku.
Apana 2. Penei na palena. Mauka aina o Maawe,
Kamaiki. aina o Konohiki. Makai, pelano. Kaena. Ili o
Kapano.
Apana 3. Penei na palena. Mauka, a puni aina
o Konohiki.
Ua loaa ia ia keia mau Apana aina na kona makua
Makua mai i ka M.H. 1840, a ua loaa hoi i kona mau
Makua na Daniela Ii mai. a ua noho ahulu oia a hiki
i keia manawa, aole oua kuakea.
Kawaaiki Hoohikiia. Ua [illegible] na olelo a pau maluna.
Pololei ko na ike [illegible]

Pali, Sworn. I know his Parcels of land at Kalulu, Lanai. 3 Parcels of land in the ili below.

Parcel 1. 1 moku mauu (grass land/pasture section) in the ili of "Ahupau."
Parcel 2. 1 moku mauu in the ili of "Elialii."
Parcel 3. House lot [illegible – in the ili of] Kamoku.

Parcel 1. The boundaries are thus. Mauka, land of Keie. Kamaiki, Ahupuaa of "Kaunolu." Makai, land of Kaukapala. Kaena, Ili land of Kamoku.

Parcel 2. The boundaries are thus. Mauka, land of Maawe. Kamaiki, land of Konohiki. Makai, the same. Kaena, Ili of Kapano.

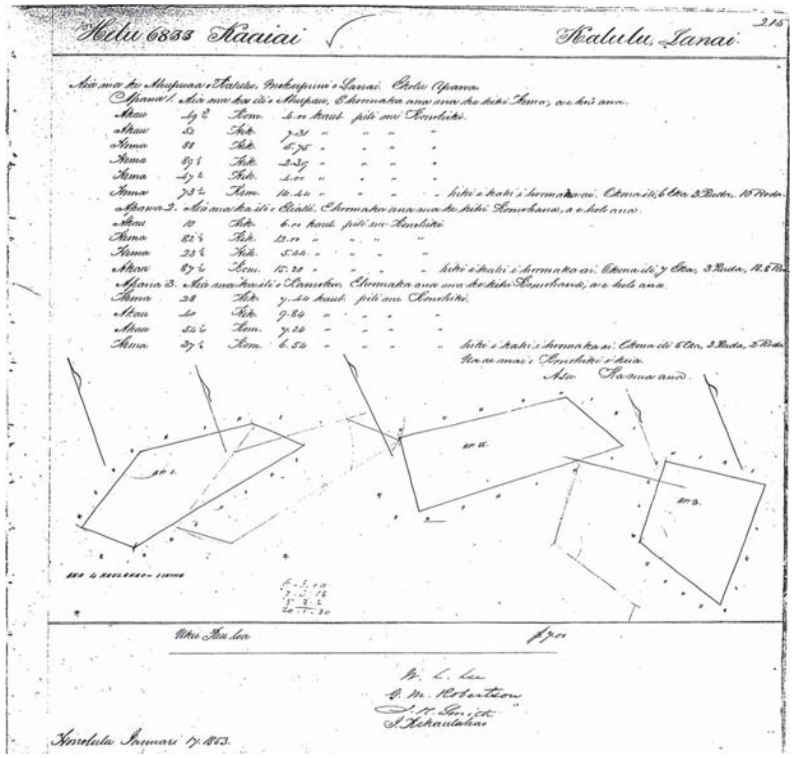
Parcel 3. The boundaries are thus. Mauka and all about, land of Konohiki.

He received these Parcels of land from his parents in the year 1840, and his parents received them from Daniela Ii. He has resided there peaceably to this time. No one has objected..

Kawaaiki, Sworn. All the words above are true. My knowledge is the same.

REF-207

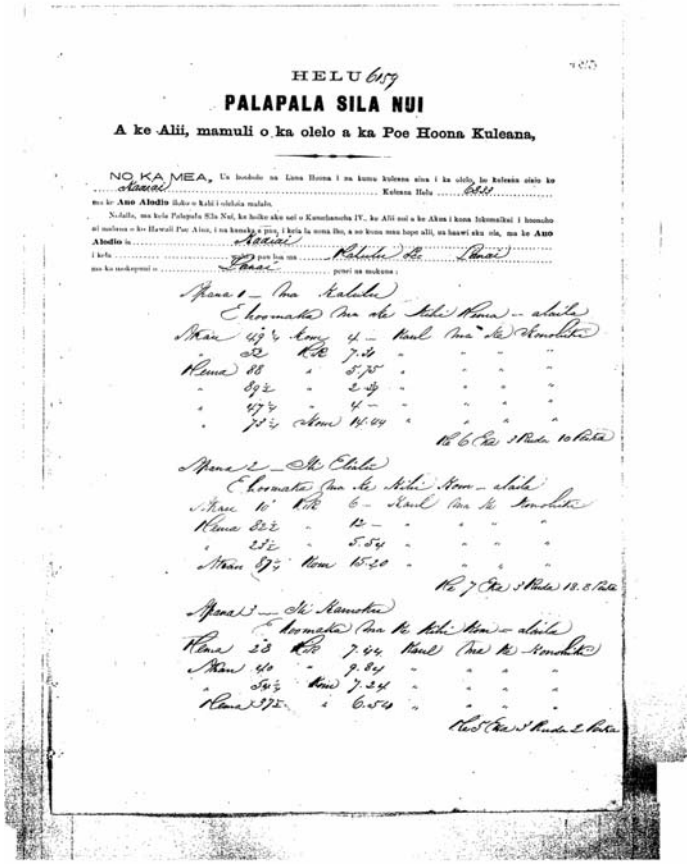
Helu 6833
Kaaiai
Kalulu & Kamoku
Mahele Award Book 7:215


Helu 6833 Kaaiai
Kalulu, Lanai

There in the Ahupuaa of Kalulu, Island of Lanai. Three Parcels.

Parcel 1. There in the Ili of Ahupau… [metes and bounds] … 6 Acres. 3 Roods, 10 Rods…
Parcel 2. There in the Ili of Elialii… [metes and bounds] … 7 Acres, 3 Roods, 17.8 Rods…
Parcel 3. There in the ili of Kamoku… [metes and bounds] … 5 Acres, 3 Roods, 2 Rods…

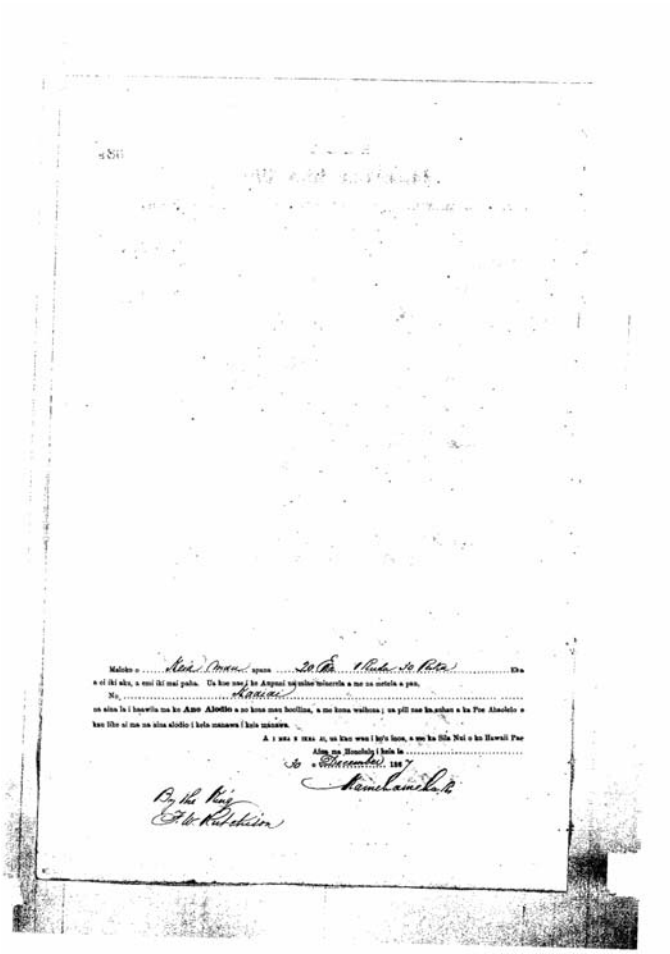
Royal Patent No. 6159
Kaaiai
Kalulu, Lanai
Book 23:485-486


HELU 6159

PALAPALA SILA NUI

A ke Alii, mamuli o ka olelo a ka Poe Hoona Kuleana,

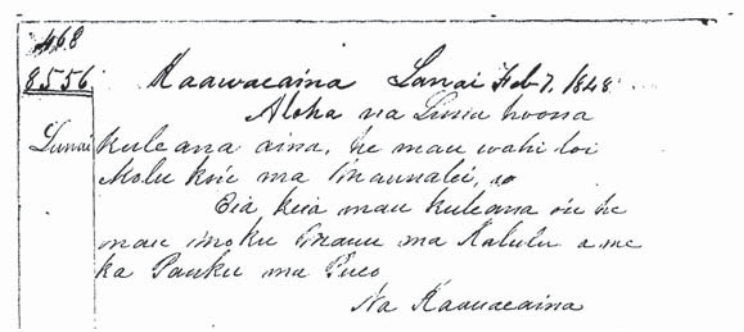
REF-208



Helu 6159
Kaaiai

…Parcel 2. Land section of Elialii. 7 Acre, 3 Roods, 18.8 Perches.
…Parcel 3. Land of Kamoku, 5 Acres, 3 Roods, 2 Perches…
Total of 20 Acres, 1 Rood, 30 Perches…

Helu 8556
Kaauwaeaina
Maunalei, Kalulu and Kamoku
Native Register 6:468


468
8556 Kaauwaeaina Lanai Feb 7, 1848
Aloha na Lunia hoona
Lanai Kuleana aina, he mau wahi loi
Molu kuu ma Maunalei, ao
Eia keia mau kuleana ou he
mau moku mauu ma Kalulu a me
ka Pauku ma Pueo
Na Kaauaeaina

Lanai Feb. 7, 1848.

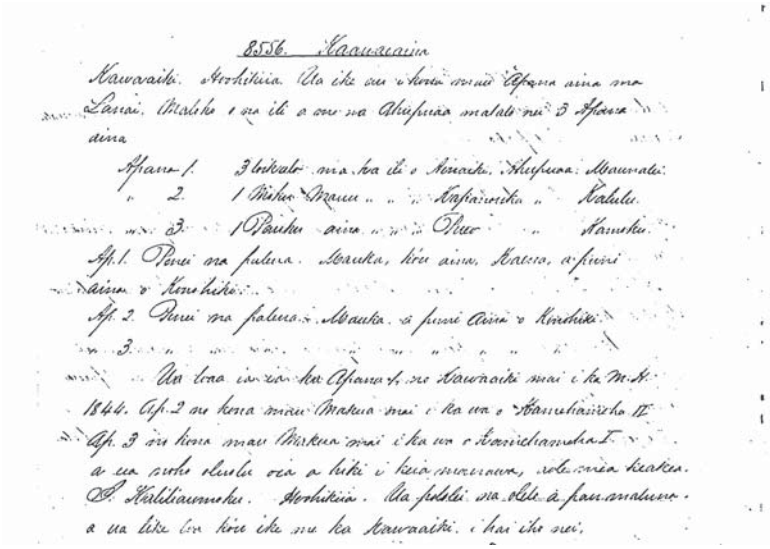
Greetings Commissioners who Quiet Land Titles. I have three loi (taro pond fields) at Maunalei.

Here are other claims of mine, several moku mauu (grass land/pasture sections) at Kalulu, and a pauku (planting section) at Pueo.

By Kaauaeaina.

REF-209

Helu 8556
Kaauwaeaina
Maunalei, Kamoku and Kalulu
Native Testimony 13:265



8556. Kaauwaeaina

Kawaaiki. Hoohiiia. Ua ike au i kona mau Apana aina ma Lanai. Malaila i na ili a ow na Ahupuaa malalo nei 3 Apana aina

Apana 1. 3 loi kalo ma ka ili o Ainaiki. Ahupuaa. Maunalei.
" 2. 1 Moku Mauu " " Kapanuoka " Kalulu.
" 3. 1 Pauku aina " " Pueo " Kamoku.

Ap. 1. Pili ma palena. Mauka, kiu aina, Kaena, a puni aina o Konohiki.
Ap. 2. Pili ma palena. Mauka. a puni Aina o Konohiki.
" 3. " " " " " " " " "

Ua loaa ia ia ka Apana 1, no Kawaaiki mai i ke M.K. 1844. Ap. 2 no kona mau Makua mai i ka wa o Kamehameha II. Ap. 3 no kona mau Makua mai i ka wa o Kamehameha I. a ua noho oluolu oia a hiki i keia manawa, ole mea keakea. I. Kaliliaumoku. Hoohiiia. Ua pololi ma olelo a pau malunu. a ua like loa kiu ike mu ka Kawaaiki. i hai iho nei.

Kawaaiki, Sworn. I know his parcels of land on Lanai. They are in the ili and Ahupuaa below. 3 parcels.

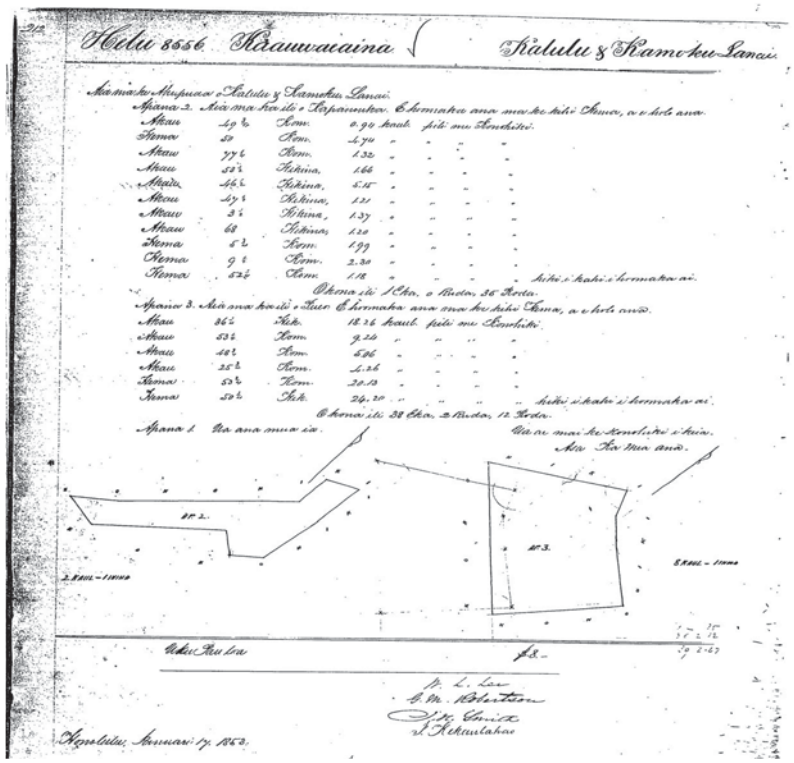
Parcel 1. 3 loi kalo (taro pond fields) in the ili of Ainaiki, Maunalei Ahupuaa.
Parcel 2. 1 moku mauu (grass land/pasture section), in the ili of Kapano uka, Kalulu Ahupuaa.
Parcel 3. 1 Pauku land in the ili of Pueo, Kamoku Ahupuaa.

Par. 1. The boundaries are thus. Mauka, my land. Kaena and all about, land of Konohiki.
Par. 2. The boundaries are thus. Mauka and all about, land of Konohiki.
Par. 3. The boundaries are thus. Mauka and all about, land of Konohiki.

He received Parcel 1 from Kawaaiki in the year 1844. Par. 2 from his parents in the time of Kamehameha II. Par. 3 from his parents in the time of Kamehameha I. He has resided there peacably to this time. No one has objected.

I. Kaliliaumoku, Sworn. All the words above are correct. My understanding is exactly like that as spoken by Kawaaiki.

Helu 8556
Kaauwaeaina
Kalulu and Kamoku
Mahele Award Book 7:212



Helu 8556. Kaauwaeaina. Kalulu & Kamoku Lanai.

Ma ma ke Ahupuaa o Kalulu & Kamoku Lanai.

Apana 2. Aia ma ka ili o Kapanuoka. E hoomaka ana ma ke kihi Akau, a e holo ana.

Akau	49½	Kom.	0.90	kaulu	pili mu Konohiki.		
Hema	50	Kom.	1.70	"	"	"	"
Akau	77½	Kom.	1.32	"	"	"	"
Akau	53½	Hikina.	1.66	"	"	"	"
Akau	46½	Hikina,	5.15	"	"	"	"
Akau	47½	Hikina,	1.21	"	"	"	"
Akau	3½	Hikina,	1.37	"	"	"	"
Akau	68	Hikina,	1.20	"	"	"	"
Hema	5½	Kom.	1.99	"	"	"	"
Hema	9½	Kom.	2.30	"	"	"	"
Hema	52½	Kom.	1.18	"	"	"	" hiki i kahi e hoomaka ai.

O kona ili 1 Eka. 0 Ruda. 35 Koda.

Apana 3. Aia ma ka ili o Pueo. E hoomaka ana ma ke kihi Akau, a e holo ana.

Akau	86½	Kuk.	18.26	kaulu	pili mu Konohiki.		
Akau	53½	Kom.	9.26	"	"	"	"
Akau	40½	Kom.	6.06	"	"	"	"
Akau	25½	Kom.	2.26	"	"	"	"
Hema	53½	Kom.	30.13	"	"	"	"
Hema	50½	Kuk.	24.20	"	"	"	" hiki i kahi e hoomaka ai.

O kona ili 38 Eka. 2 Ruda. 12 Koda.

Apana 1. Ua ana mua ia.

Ua ae mai ke Konohiki i keia. Aole ka mea ana.

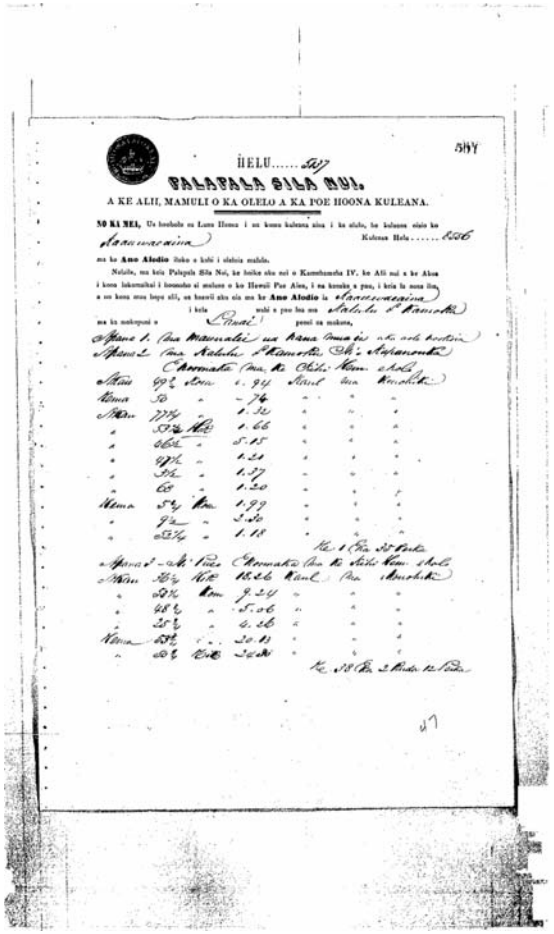
Helu Pau Loa

Honolulu, Januari 17, 1853.

W. L. Lee
G. M. Robertson
C. K. Gulick
J. Kekuelahao

REF-210

Royal Patent No. 5137
Kaauwaeaina
Kalulu, Lanai
Book 20:501-502



HELU..... 5137

PALAPALA SILA NUI.

A KE ALII, MAMULI O KA OLELO A KA POE HOONA KULEANA.

NO KA MEA, Ua hoohele ia Luna Hooia i au kuleana aina i ka aiolo, he kuleana aiolo ko Kaauwaeaina Kuleana Helu..... 5136

ma ka **Ano Aiodio** Aiko a koki i aiolaia malalo.

Nolaila, ma keia Palapala Sila Nui, ke hoike aku nei o Kamehameha IV. ke Alii nui a ke Alii i koon iakamakai i hoomoho ai malum o ko Hawaii Pae Aina, i na kuaka a pae, i keia la mua iho, a ua kuu mua hope ali, ua haawi aku ola ia ma ke **Ano Aiodio** la Kaauwaeaina i kela wahi a pae loa ma Kalulu Ka Kamoku

ma ka makapuai a Puai pauai ia makua,

Apana 1. (ma Mauwalei ua kana ma ka ala hoolaia)

Apana 2 (ma Kalulu Ka Kamoku Ka Ahupanouka)

Kamoku (ma Ka Ohia Nui ahola)

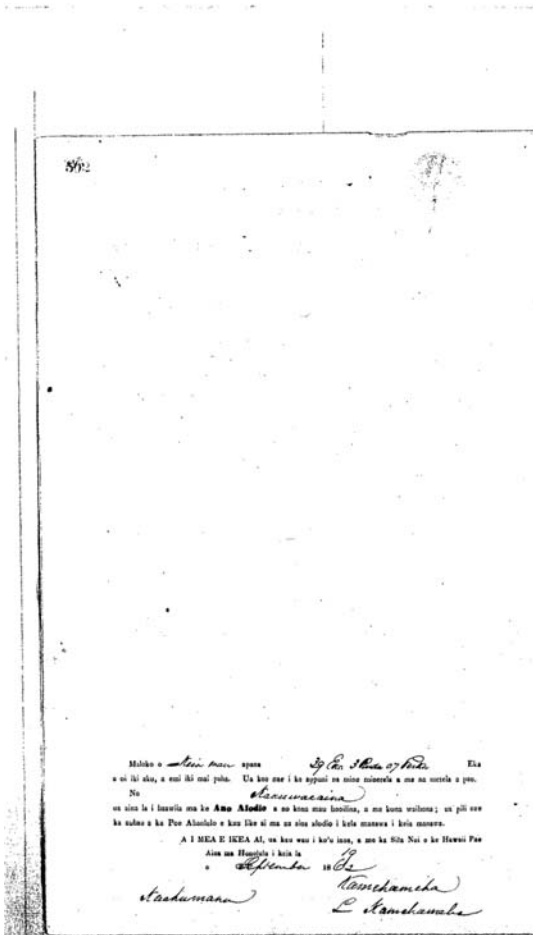
Helu	992	Aina	1.94	Kaul	ma	Kamoku
Hema	50	"	.74	"	"	"
Helu	1174		1.32	"	"	"
"	1172	Ahi	1.66	"	"	"
"	664	"	5.15	"	"	"
"	974	"	1.24	"	"	"
"	574	"	1.37	"	"	"
"	60	"	1.20	"	"	"
Hema	574	Aina	1.99	"	"	"
"	92	"	3.50	"	"	"
"	574	"	1.18	"	"	"

Ka 1 Pae 38 Poele

Apana 3 – Ka Pae Gomaka (ma Ka Ohia Nui ahola)

Helu	1172	Ahi	18.26	Kaul	ma	Kamoku
"	574	Aina	9.24	"	"	"
"	48	"	5.06	"	"	"
"	50	"	4.26	"	"	"
Hema	574	"	20.11	"	"	"
"	50	Ahi	20.11	"	"	"

Ka 38 Pae 2 Poele 12 Poele



992

Maloko o Helu mua apana 39 Pae 3 Poele 07 Poele Eia a ui iki aku, a emi iki mai paha. Ua koo mai i ka aupuni ua mine minerala a me na metala a pau.

No Kaauwaeaina

ua aina la i loaaila ma ke **Ano Aiodio** a ua kuu mau koolina, a ua kuu waihona; ua pili ere ka nalua a ka Poe Alanilolo e kau like si ma na aina aiodio i kela manawa i keia manawa.

A I MEA E IKEA AI, ua kau wau i ko'u inoa, a me ka Sila Nui o ko Hawaii Pae Aina ma Honolulu i keia la 12 o Septembr 1862

Kamehameha

Kaahumanu

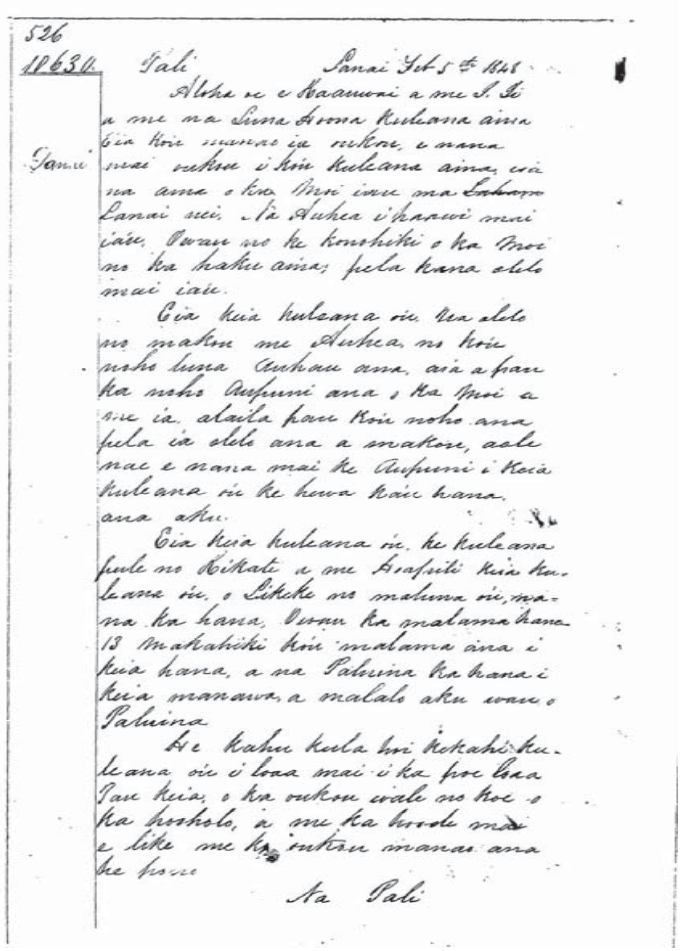
L Kamehameha

Helu 5137
Kaauwaeaina

…Parcel 2. At Kalulu and Kamoku, Land section of Kapanouka… 1 Acre, 35 Perches.
…Parcel 3. Land section of Pueo, 38 Acres, 2 Roods, 12 Rods…
Total of 39 Acres, 3 Roods, 07 Rods…

REF-211

Helu 10630
Pali
Kamoku
Native Register 6:526



526
10630 Pali Lanai Feb 5th 1848

Aloha oe e Kaauwai a me J. Ii
a me na Luna Hoona Kuleana aina
Eia kou manao ia oukou, e nana
Lanai mai oukou i kou kuleana aina, eia
na aina o ka Moi iaue ma ~~Lahaina~~
Lanai nei. Na Auhea i hanwi mai
iaue, Owau no ke konohiki o ka Moi
no ka haku aina; pela kana olelo
mai iaue.

Eia keia kuleana ou. Ua olelo
no makou me Auhea, no kou
noho luna Auhau ana, aia a pau
ka noho Aupuni ana o ka Moi a
me ia. alaila pau kou noho ana
pela ia olelo ana a makou, aole
nae e nana mai ke Aupuni i keia
kuleana ou ke hewa kau hana,
ana aku.

Eia keia kuleana ou, ke kuleana
pule no Kikate a me Hoapili keia ku-
leana ou, o Likeke no maluna ou, na-
na ka hana, Owau ka malama hana
13 makahiki kou malama ana i
keia hana, a na Paluina ka hana i
keia manawa, a malalo aku wau o
Paluina

He kahu kula hoi kekahi ku-
leana ou i loaa mai i ka poe loaa
Pau keia, o ka oukou wale no koe o
ka hosholo, a me ka hoode mai
e like me ka oukou manao ana
he poeo

Na Pali

Lanai Feb. 5th, 1848

Aloha to you Kaauwai, J. Ii and Armstrong, Commissioners who Quiet Land Claims. Here are my thoughts to you, that you will look upon my land claim. Here are the lands which the King gave me on Lanai. Auhea gave them to me. I am a Konohiki of the King, the lord of the land. That is what he said to me.

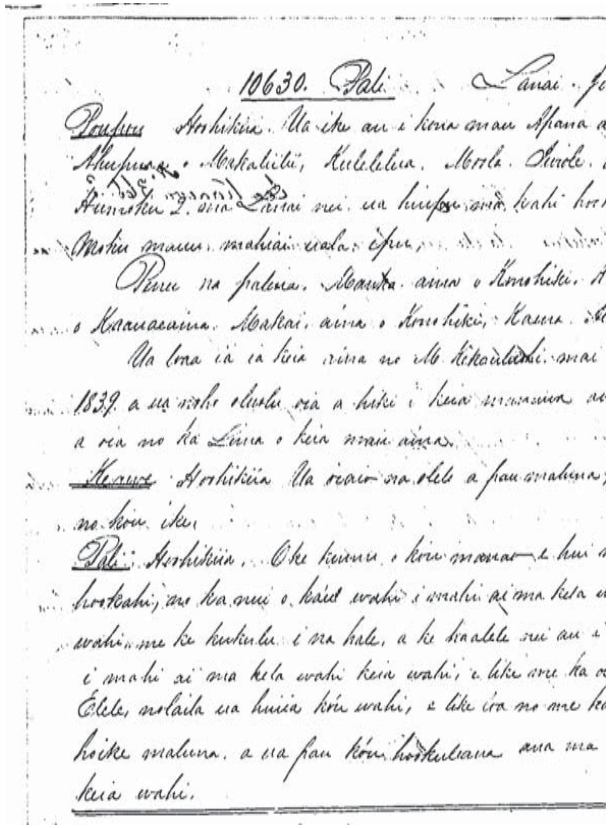
Here is this claim of mine. We spoke with Auhea, about my being the tax collector, that when the reign of the King in the Government was finished, then my position would end. That is was what we spoke of. But the Government would not consider my claim if my work should be at fault.

Here is this responsibility of mine, a responsibility of prayer [as an overseer of the Lanai Church] from Ricord and Hoapili. Richards is my overseer. I have attended this work for 13 years. That is what I took care of. Now Baldwin tends to the work, and I am under Baldwin.

School overseer is another responsibility of mine, gotten from those people who had it. That is it. The decision to approve or deny it, is now up to you as you decide.

REF-212

Helu 10630
Pali
Kamoku
Native Testimony 13:259



10630. Pali. Lanai.

Poupou Hoohikiia. Ua ike au i kona mau Ahupuaa a
Ahupuaa o Makaliili, Kalelelua. Iwiole. o
Aumoku 2. ma Lanai nei. ua hui pu ia ia kahi kona
Moku mauu. waiwai wala. ipu.

Penei na palena. Mauka. aina o Konohiki. A
o Kaauaeaina. Makai. aina o Konohiki, Kaena. Ala

Ua loaa ia ia keia aina no M. Kekauluohi. mai
1839. a ua noho oluolu oia a hiki i keia manawa a
a oia no ka Luna o keia mau aina.

Keawe Hoohikiia Ua oiaio na olelo a pau maluna;
no kou ike.

Pali: Hoohikiia. Oke kumu o kou manao e hui a
hookahi, no ka nui o kaai wahi i wahi ai ma kela a
wahi me ke kukulu i na hale, a ke haalele nei au i
i wahi ai ma kela wahi keia wahi, e like me ka o
Elele, nolaila ua huiia kou wahi, e like ana no me ke
hoike maluna. a ua pau kou hookuleana ma ma
keia wahi.

Lanai. July 10, 1851.

Poupou, Sworn. I know his parcels of land in the Ahupuaa of Makaliilii, Kalelelua, Iwiole and the 2 Aumoku on Lanai. They are combined into one, being several moku mauu (grass land/pasture sections), sweet potato and gourd fields.

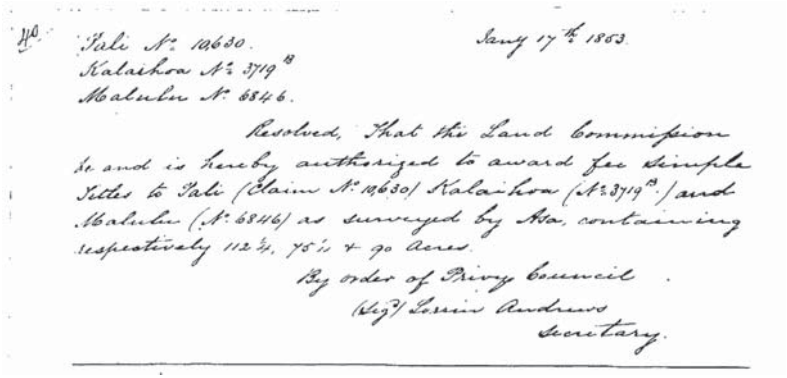
The boundaries are thus. Mauka, land of Konohiki. Kamaiki, land of Kaauaeaina. Makai, land of Konohiki. Kaena, Alanui (Road).

He recieved his land from M. Kekauluohi in the year 1839, and has resided there peaceably to this time. No one has objected, and he is the Overseer of these lands.

Keawe, Sworn. All the words above are true. My knowledge is the same.

Pali, Sowrn. The reason for my thinking of joining them together as one, is be cause there are many places of mine which are cultivated here and there, and where are built houses. I go from one place to another to cultivate, as announced in the Elele [newspaper]. Therefore I've joined my places together. It is as the witnesses have stated above. My claims for the other places are ended.

Helu 10630
Pali
Kamoku
Foreign Testimony 15:40



No. Pali No. 10630. Kalaihoa No. 3719 B. Malulu No. 6846.

Jany 17th 1853.

Resolved, That the Land Commission be and is hereby authorized to award fee simple Titles to Pali (Claim No. 10630) Kalaihoa (No. 3719 B.) and Malulu (No. 6846) as surveyed by Ka, containing respectively 112½, 75½ & 90 Acres.

By order of Privy Council.
(Sig.) Lorin Andrews
Secretary.

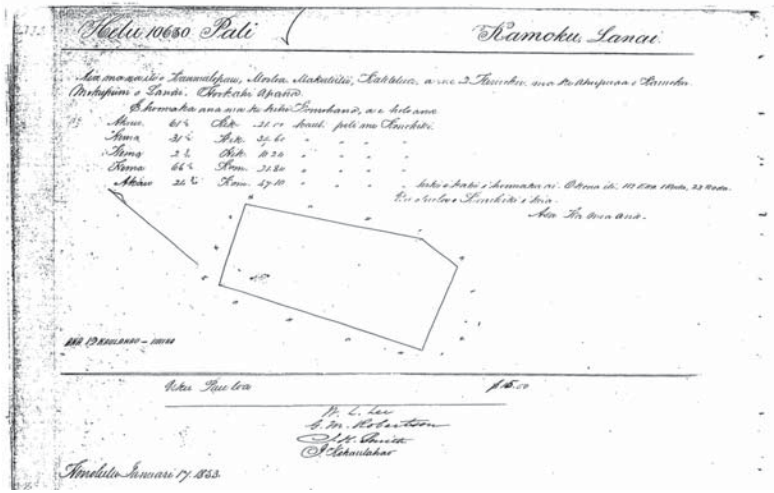
REF-213

Jany. 17th, 1853.

Resolved, that the Land Commission be and is hereby authorized to award fee simple titles to Pali (Claim No. 10,630), Kalaihoa (No. 3719 B) and Malulu (No. 6846) as surveyed by Asa, containing repsectively 11 14, 75 1/10 & 90 Acres.

By order of Privy Council
(Sig.) Lorrin Andrews,
Secretary.

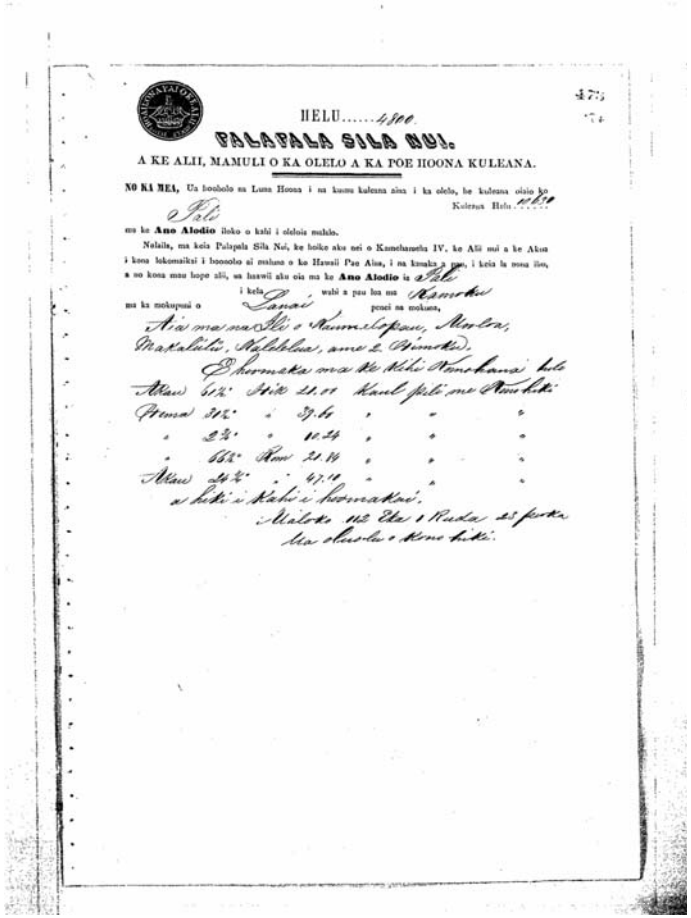
Helu 10630
Pali
Kamoku
Mahele Award Book 7:222


Helu 10630 Pali
Kamoku, Lanai

There in the ili of Kaumalapau, Mooloa, Makaliilii, Kalelelua and 2 Aumoku, in the Ahupuaa of Kamoku, Island of Lanai. One Parcel.

Beginning at the Western corner and running… [metes and bounds] … 112 Acres, 1 Rood, 23 Rods…

Royal Patent No. 4800
Pali
Kamoku, Lanai
Book 19:473-474


HELU.....4800.
PALAPALA SILA NUI.
A KE ALII, MAMULI O KA OLELO A KA POE HOONA KULEANA.

Kuleana Helu 10630

Pali

ma ke **Ano Alodio** iloko o kahi i olelois malalo.

Nalaila, ma keia Palapala Sila Nui, ke hoike aku nei o Kamehameha IV, ke Alii nui a ke Akua i kona lokomaikai i hoonoho ai maluna o ke Hawaii Pae Aina, i na kanaka a pau, i keia la nona iho, a no kona mau hope alii, na haawii aku oia ma ke **Ano Alodio** ia Pali

i kela wahi a pau loa ma Kamoku

ma ka mokupuni o Lanai penei na mokuna,

Aia ma na Ili o Kaumalapau, Mooloa, Makalilii, Kalelelua, ame 2 Aumoku.

E hoomaka ma ke kihi Komohana hulo

Akau 61½° Hik 21.00 Kaul pili me Komohiki

Poema 31½° " 39.60 " " "

" 2¾° " 10.24 " " "

" 66½° Kom 21.84 " " "

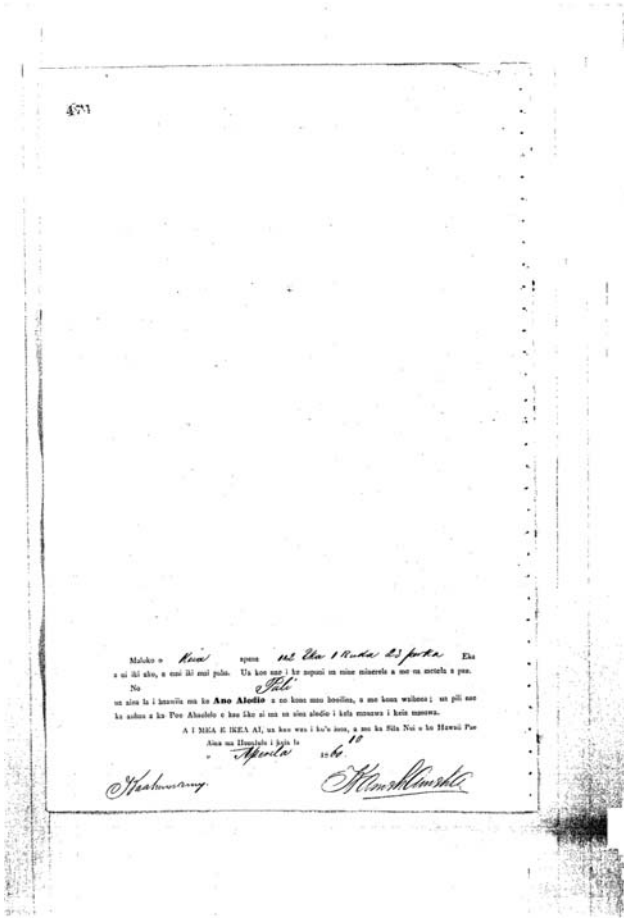
Akau 24½° " 47.10 " " "

a hiki i kahi i hoomakai.

Maloko 112 Eka 1 Ruda 23 poka

Ua oluolu o kono hiki.

REF-214



Helu 4800
Pali

There in the ili of Kaumalapau, Mooloa, Kaka liilii, Kelelelua, and 2 Aumoku… Adjoining the Konohiki.

Containing 112 Acres, 1 Rood, and 23 Rods…

Palapala Sila Nui Helu 3029 - Royal Patent Grant No. 3029

The Māhele ʻĀina (Land Division) of 1848 met with mixed results. More than half the applications made by native tenants of Lānaʻi for kuleana (personal property rights) were rejected by the Land Commission. This problem was recognized while the Māhele was being undertaken and Kamehameha III implemented the program that allowed native and foreign residents to apply for grants of land—in fee-simple interest—that were held in the Crown and Government Land Inventory.

The process of applying for "Grant Lands" was set forth by the "Enabling Act" of August 6, 1850, which set aside portions of government lands for grants, as described below:

> **Section 4**. Resolved that a certain portion of the Government lands in each Island shall be set apart, and placed in the hands of special agents to be disposed of in lots of from one to fifty acres in fee simple to such natives as may not be otherwise furnished with sufficient lands at a minimum price of fifty cents per acre. ["Enabling Act" – DLNR 2-4]

The Kingdoms' policy of providing land grants to native tenants was further clarified in a communication from Interior Department Clerk, A. G. Thurston, on behalf of Keoni Ana, Minister of the Interior, to one of the Government Land Agents:

> **February 23, 1852**
> …You will entertain no application for the purchase of any lands, without first receiving some part, say a fourth or fifth of the price; then the terms of sale being agreed upon between yourself and the applicant you will survey the land, and send the survey, with your report upon the same to this office, for the Approval of the Board of Finance, when your sales have been approved you will collect the balance due of the price; upon the receipt of which at this office, the Patent will be forwarded to you.
>
> Natives who have no claims before the Land Commission have no Legal rights in the soil. They are therefore to be allowed the first chance to purchase their homesteads. Those who neglect or refuse to do this, must remain dependent upon the mercy of whoever purchases the land; as those natives now are who having no kuleanas are living on lands already Patented, or belonging to Konohikis.
>
> Where lands have been granted, but not yet Patented, the natives living on the land are to have the option of buying their homesteads, and then the grant be located, provided this can be done so as not to interfere with them.
>
> No Fish Ponds are to be sold, neither any landing places.
>
> As a general thing, you will charge the natives but 50 cents pr. acre, not exceeding 50 acres to any one individual. Whenever about to survey land adjoining that of private individuals, notice must be given them or their agents to be present and point out their boundaries… [Interior Department Letter Book 3:210-211]

REF-215

From 1855 to 1867, thirteen (13) grant applications, comprising 735.93 acres, were surveyed and patented to fourteen individuals (13 natives and one foreigner) on the island of Lānaʻi. Most of the native claimants had also applied for land as a part of the Māhele ʻĀina—some grantees received awards, others did not. Digital copies of all Royal Patent Grant Records from Lānaʻi may be viewed at https://www.lanaichc.org/royal-patent-grants.html.

In Kamoku, one Royal Patent Grant, No. 3029, was issued to Nahuina and Keliihue. Their grant covered land in both Kamoku and Kalulu Ahupuaʻa, but is not in the Kōʻele vicinity (see Figure 2). While originally surveyed in 1855, the Grant was recorded in 1866 (Grant Book No. 14). The Grant contained 236.68 acres in two parcels, with approximately 120 acres in Kamoku. The records of Palapala Sila Nui Helu 3029 (including unnumbered digital copies) are cited below with verbatim and/or summary English translations of those documents prepared by Kepā Maly.

Palapala Sila Nui (Royal Patent Grant) 3029
Kalulu [and Kamoku], Lanai
Nahuina & Keliihue, he aina kuai ka laua me ke Aupuni, Kalulu i Lanai, 236.68 Eka, hookahi dala o ka Eka 1.

No ka aina	236.75	
No ke Sila	5.00	
No ke Ana ana	20.00	261.75

Kaa mua ia Ioane Richardson	158.00
Kaa hope ia P. Nahaolelua	103.75

Ua kaa loa keia aina, ua hooiliia ke dala i ke Kuhina Kalaiaina. E nana ma ka Buke 2 aoao 31. Ua loaa mai ka P. Sila Nui, Helu 3029, ua haawiia ia Nahuina & Keliihue. [Hawaii State Archives, DLNR 2 Vol. 37:38]

[Translation]

Nahuina & Keliihue have purchased land of the government in Kalulu, Lanai. 236.68, at $1.00 per Acre.

Price of the Land	236.75	
Price of the Patent	5.00	
Price of the Survey	20.00	$114.12

The land has been paid for in full, with the money collected by the Minister of the Interior. Look in Book 2, page 31. The R. Patent, Number 3029 has been received by Nahuina and Keliihue. [Translator, Kepā Maly]

Palapala Sila Nui Helu 3029
Nahuina & Keliihue

Apana 1. Ma ke Ahupuaa o Kalulu, Mokupuni o Lanai.

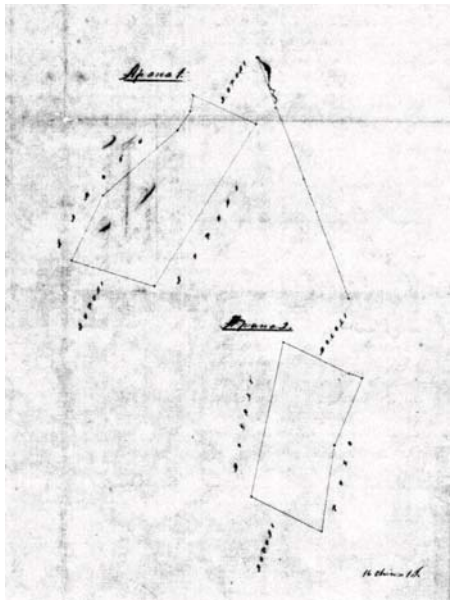
E hoomaka ana ma ke kihi Komohana Hema o keia apana a holo aku i ka:

He. 52 ½ º Hi. 2532 pauku pili me Aupuni;
Ak. 52º Hi. 2653 pauku pili me Aupuni;
Ak. 43 ¾ º Ko. 2030 pauku pili me Aupuni;
He. 30 ¼ º Ko. 514 pauku pili me Ahupuaa o Kamoku;
He. 53 ¾ º Ko. 718 pauku pili me Ahupuaa o Kamoku;
He. 68 ½ º Ko. 2930 pauku pili me Ahupuaa o Kamoku;
He. 45 ½ º Ko. 2080 pauku pili me Ahupuaa o Kamoku;
Hiki i ke kihi mua.
O kona ili 133 1/10 Eka.

Apana 2. Ma ka ili o Kaumalapau i loko o ke Ahupuaa o Kamoku.

E hoomaka ana ma ke kihi Hikina Akau o keia apana a holo aku i ka:

Ak. 52 ¾º Ko. 415 pauku pili me Aupuni;
Ak. 44º Ko. 2144 pauku pili me Malulu;
He. 32 ½º Ko. 4664 pauku pili me Malulu;
He. 43º Hi. 2320 pauku pili e Aupuni;
Ak. 29º Hi. 2540 pauku pili me Ili o Pueo;
Ak. 43º Hi. 2200 pauku pili me Ili o Pueo;
Hiki ke kihi i hoomaka ai.



Notes of Survey for Royal Patent Land Grant No. 3029 to Nahuina & Keliihue, at Kalulu and Kamoku. (Hawaii State Archives)

REF-216

O kona ili, 103. 58/100 Eka.

[John Richardson]

Waikapu.
Nov. 1855.

Translation:

Parcel 1. In the Ahupuaa of Kalulu, Island of Lanai.

Beginning at the Southwestern corner of this parcel and running to the:

South 52 ½º East 2532 links along Government;
North 52º East 2653 links along Government;
North 43 ¾ º West 2030 links along Government;
South 30 ¼ º West 514 links along the Ahupuaa of Kamoku;
South 53 ¾ º West 718 links along the Ahupuaa of Kamoku;
South 68 ½ º West 2930 links along the Ahupuaa of Kamoku;
South 45 ½ º West 2080 links along the Ahupuaa of Kamoku;
To the first corner.

Containing 133 1/10 Acres.

Parcel 2. In the ili of Kaumalapau, in the Ahupuaa of Kamoku.

Beginning at the Northeastern corner of this parcel and running to the:

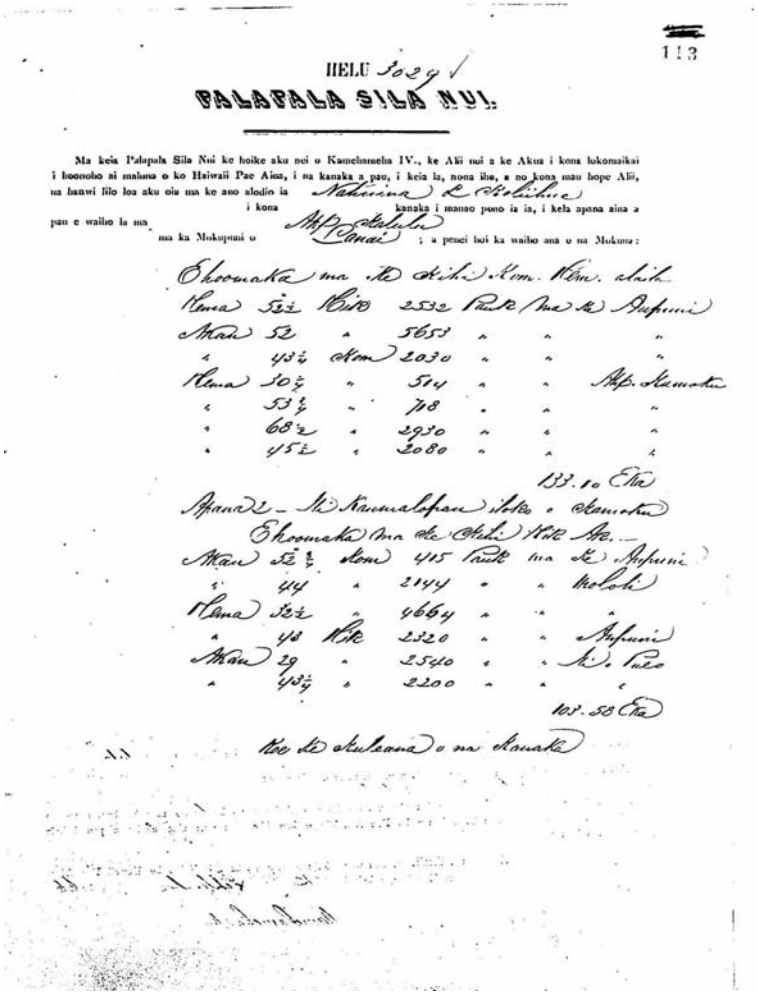
North 52 ¾º West 415 links along Government;
North 44º West 2144 links along Malulu;
South 32 ½ º West 4664 links along Malulu;
South 43º East 2320 links along Government;
North 29º East 2540 links along the Ili of Pueo;
North 43º East 2200 links along the Ili of Pueo;
To the corner of commencement.

Containing 103 58/100 Acres.

[John Richardson]

Waikapu.
Nov. 1855. [Translator, Kepā Maly]

Royal Patent No. 3029, Vol. 14 pages 113-114


113

HELU 3029

PALAPALA SILA NUI.

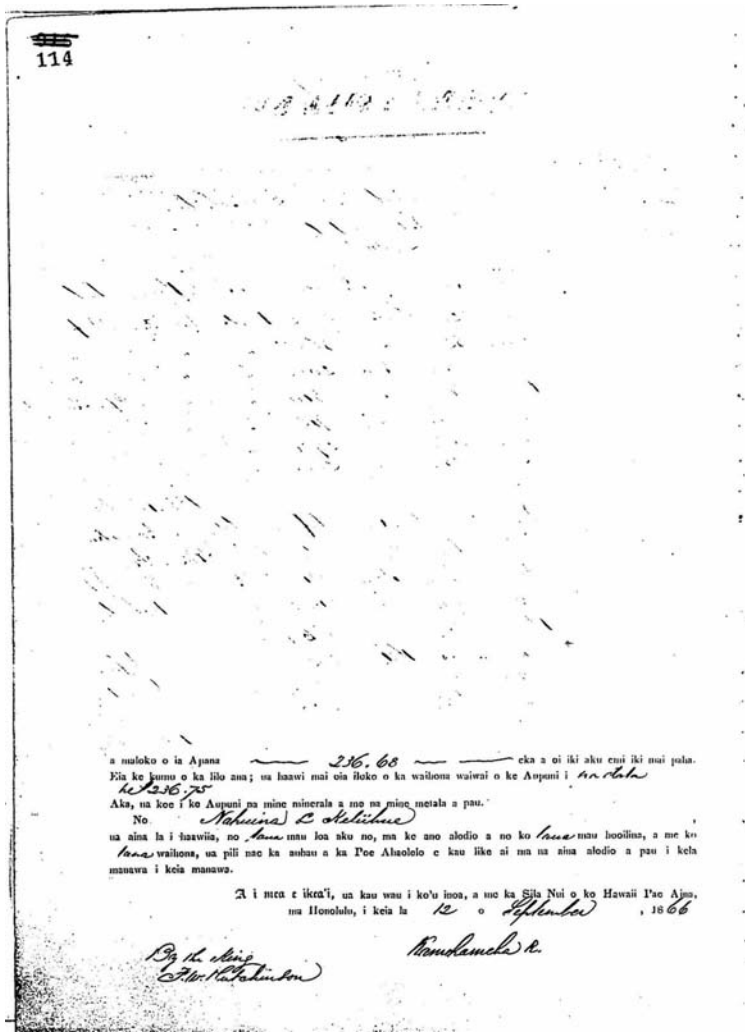
Ma keia Palapala Sila Nui ke hoike aku nei o Kamehameha IV., ke Alii nui a ke Akua i kona lokomaikai i hoonoho ai maluna o ko Hawaii Pae Aina, i na kanaka a pau, i keia la, nona ihe, a no kona mau hope Alii, na hanwi filo loa aku oia ma ke ano alodio ia i kona kanaka i manao pono ia ia, i kela apana aina a pau e wailio la ma ka Mokupuni o ; a penei loi ka wailio ana o na Mokuna:

Ekoomaka ma ke Aki Kom. Kem. Aki
Kema 52½ Kuko 2532 Pauku ma ke Apuuni
Mauka 52 " 5653 " " "
" 43¾ Kom 2030 " " "
Kema 30¼ " 514 " " Apo. Kamoku
" 53¾ " 718 " " "
" 68½ " 2930 " " "
" 45½ " 2080 " " "
133.10 Eka

Apana 2 – Ili Kaumalapau iloko o Kamoku
Ekoomaka ma ke Aki Kuko Ake.
Mauka 52¾ Kom 415 Pauku ma ke Apuuni
" 44 " 2144 " " Malulu
Kema 32½ " 4664 " " "
" 43 Kuko 2320 " " Apuuni
Mauka 29 " 2540 " " Ili Pueo
" 43¾ " 2200 " " "
103.58 Eka

Ke ke Kuleana o na Kanaka

REF-217


114

a muloko o ia Apana 236.68 eka a oi iki aku emi iki mai paha.
Eia ke kumu o ka lilo ana; ua haawi mai oia iloko o ka waihona waiwai o ke Aupuni i na dala
he 236.75
Aka, na koe i ke Aupuni na mine minerala a me na mine metala a pau.
No Nahuina L Kelühue
ua aina la i haawiia, no lana mau loa aku no, ma ke ano alodio a no ko lana mau hooilina, a me ko
lana waihona, ua pili nae ka auhau a ka Poe Ahaolelo e kau like ai ma na aina alodio a pau i kela
manawa i keia manawa.

A i mea e ikea'i, ua kau wau i ko'u inoa, a me ka Sila Nui o ko Hawaii Pae Aina,
ma Honolulu, i keia la 12 o September, 1866

Kamehameha R.

By the King
F. W. Hutchinson

KAMOKU BOUNDARY COMMISSION PROCEEDINGS AND GOVERNMENT ROADS

A significant history of Lāna'i may be found in records of the Hawaiian Kingdom Survey and Interior Department collections. These narratives document traditional knowledge of the land, ahupua'a boundaries, and rights of access that were protected for use by native tenants. Selected documents from several collection types are cited in the following section of the study, and shed light on the history of Kō'ele and the larger Kamoku Ahupua'a.

Surveys and Proceedings of the Boundary Commission for the Ahupua'a of Kalulu and Kamoku

Following the Māhele 'Āina, there was a growing movement to fence off land areas and control access to resources, that native tenants traditionally used. By the 1860s, foreign land owners and business interests petitioned the Crown to have the boundaries of their respective lands—which were the foundation of plantation and ranching interests—settled. In 1862, the King appointed a Commission of Boundaries (the Boundary Commission). Their task was to collect traditional knowledge of place, pertaining to land boundaries, customary practices, and determine the most equitable boundaries of each ahupua'a that had been awarded to Ali'i, Konohiki, and foreigners during the Māhele. The commission proceedings were conducted in the courts and as formal actions under the law. As the commissioners on the various islands undertook their work, the kingdom hired or contracted with surveyors to begin the surveys. In 1874, the Commissioners of Boundaries were authorized to certify the boundaries for lands brought before them (W.D. Alexander in Thrum 1891:117-118).

Primary records in this collection from Lāna'i were recorded between 1876 to 1891. The records include testimonies of elder kama'āina who were either recipients of kuleana in the Māhele, holders of Royal Patent Land Grants on the island, or who were the direct descendants of the original fee-simple title holders. The Boundary Commission proceedings provide a significant record of traditional and customary knowledge of native residents of Lāna'i, with personal informant memories dating back to ca. 1800. The narratives cited below include several sources of documentation comprised of: (1) letters of request and announcements in preparation for establishing the boundaries; (2) letters from the surveyors in the field; (3) excerpts from surveyor's field books (Register Books); (4) records of testimonies given by native residents of Lāna'i; and (5) the entire record of the Commission in certifying the boundaries of Kamoku Ahupua'a on Lāna'i.

The native witnesses usually spoke in Hawaiian and in some instances, their testimony was translated into English and transcribed as the proceedings occurred. The resulting narratives integrate the informants traditional knowledge, descriptions of land use practices, and changes in the landscape, into the context of life not only in the Kō'ele vicinity but in the larger ahupua'a of Kamoku and neighboring lands.

REF-218

As a part of their work, surveyors sought out native residents of the land from whom they could elicit traditional knowledge of the boundaries, practices and features of the land. The list below identifies the names of the Lānaʻi witnesses and guides for the period between 1876 to 1877. Among the witnesses were Pali, Kaaiai, Keliihue, Nahuina, Kawaonahele, Papalua and Walter M. Gibson, who resided in Kamoku Ahupuaʻa.

Surveyor Communications – Descriptions of Work on Lānaʻi

In the period between 1876-1877, William D. Alexander (Surveyor General), M.D. Monsarrat (Assistant Surveyor), J.F. Brown and party surveyed the entire island of Lānaʻi, often traveling with elder native tenants. Alexander's field book (Register Book No. 153; copied from the collection of the State Survey Division), covering late March and early April 1876, contains his notes, compiled through interviews and field work. The book provides readers of the present day with glimpses into the cultural and natural landscape of Lānaʻi, and identifies several elder informants on Lānaʻi. Of particular importance is documentation of traditional sites—such as heiau, areas of residence, burial sites, shrines, former uaʻu [petrel] nesting grounds, and trails. Also found in the records are a number of place names and descriptions of features not mentioned in other documentary sources.

Unfortunately, few of the narratives recorded in Register Book No. 153 made it into the formal proceedings and documents of certification authorized by the Boundary Commission. The court proceedings focused on metes and bounds, relying on the authenticity and accuracy of the documentation provided by the surveyors. Thus, the notes copied verbatim from Register Book No. 153, provide us with the background as to how the boundaries were determined, and identify significant cultural resources of Lānaʻi.

Lanai (Memo.)
W.D. Alexander
1875-76
Register Book No. 153[6]
Notes on Lanai Boundaries
At Halepalaoa March 28th, ʻ76.
…Kaumalapau & Kalama are both Ilis of Kamoku. Three lands run across from sea to sea, viz., Palawai, Kalulu, & Kaunolu.

Kalulu includes most of the mountain ridge, i.e., wherein the uaʻu birds were found in ancient times. [page 14]

March 31st
The boundary between Paomai and Kaa, after following the top of the sand beach from Hale o Lono eastward to Pohaku Loa turns inland and runs straight for a small gulch near Kapuniai's house. [page 19]

From Kapuniai's house, the line follows the foot of a line of bluffs, sending off a branch to the sea on the west between Kaa and Kamoku. It grows narrower towards the south and forms a narrow strip between Kamoku and Mahana as

[6] Note: Alexander uses macron accents on certain place and people names as indicated in the citations.

mentioned before. One of its landmarks is an ahu-puaa [stone marker where tribute was paid in ancient times] near Koele, at foot of the encircling ridge near the mouth of a small ravine.

April 1.
Appr. Elevation of the water shed near the road from Maunalei to Kamoku = 1750 ft.

Appr. Elevation of the Koele station 1550 ft.

Kealakaa states that the boundary line between Kaa and Paomai after leaving Kapuniai's house, strikes the edge of the encircling line of bluffs about 500 ft. N.W. of Keoni's house on the [page 20] crest of the water shed, at a place called Kakaalani. Thence the line descends a transverse ridge to S.W., marked by two or three large rocks, to the central plain. Thence it runs straight Southwesterly to the head of a ravine which separates Kaa from Kamoku. According to ancient tradition the bottom of this ravine to the sea belonged to Paomai.

A stone was pointed out on a low ridge at about the middle of this line, as one of Ioba's marks.

A commanding hill N.W. of the central plain, which was selected for a primary trig. station, is called Kanepu [Kanepuu].

The boundary between Paomai & Kamoku begins at the west, at the head of the ravine. [page 21]

Paomai Boundary which separates Kaa from Kamoku. In Makalena's [survey], he commenced here at a house site. The line then runs S.E. nearly straight to the ahupuaa before mentioned near Koele. One of Makalena's stations was a house site on a rising ground about half way, where there is a group, or clump of rocks.

The name of the square red bluff in the encircling ridge, a little S. of Kakaalani, is Pohoula. At its foot was the general burying ground for this part of Lanai in ancient times.

From the above mentioned ahupuaa, the boundary between Paomai & Kamoku runs up a small ravine to the top of the dividing ridge. It then follows the [page 22 [7]] edge of the pali round to the main branch of the Mahana gulch & thence returns to the northward along the west side of that gulch to Pohaku ahi mentioned above.

The Mahana gulch, which is a branch of the Maunalei valley, & the Kamoku gulch which turns to the westward, are separated by a narrow ridge which is nearly broken down at the point when the latter gulch makes a bend at right

[7] Page 22. Note: handwritten page numbering in Register Book is out of order; number 22 is repeated in the sequence of page numbers.

REF-219

angles to the westward. Paomai properly should not extend to the south beyond this point. The ancient tradition, however, was that it continued as a narrow path between Mahana & Kamoku as far as Kalulu & even to Kaohai.

Mem. The Mahana gulch has four branches which all drain into the Maunalei valley. There are two gulches which drain to the westward, the larger & western one which belongs to Kamoku, having the name of Kaiholena. [page 22]

April 3rd. 76. Monday
Keliihue widow of Nahuina, was born on Kalulu, & testifies that the boundary between Kalulu and Kamoku comes down from a hill known as Puunene down the North bank of the Kapano valley to the Govt. road, passing near Kawaonahele's house, keeping straight on across a side ravine coming in from the north, called Keaakū, to the top of the north wall of the Palawai crater at a place called Pulehuloa, near Keliihananui's house.

Kamoku
Thence it skirts to the northwestern slope of the crater till it meets the old road to the sea, which it follows down to Kaumalapau Harbor.

Papalua another old resident agrees with the above in the main, but declares that from Pulehuloa the boundary runs to a rocky eminence called Puu Nanaihawaii, where he says that Makalena set up his compass.

From thence he says it runs to the site of an old heiau called Ka Ili o Lono, near which Papalua's house formerly stood, near the present road. Kaaiai, an old kamaaina, insane however, points out a pile of rocks nearly on a line between these two points called Kuanaipu, to which he says he guided Makalena.

From the Ili o Lono the line follows the old road to the [page 23] neighborhood of Kaumalapau Harbor. The whole of the harbor belongs to Kamoku. Starting from the edge of the pali on the south side of the harbor, the line follows the ridge on the south side of Kaumalapau ravine till it meets the old road. [page 24]

The letters below (from the collection of the Hawai'i State Archives), are representative of the communications from the Interior and Survey Departments, documenting the process leading up to, and of conducting surveys on the island of Lāna'i. One interesting point found in the letters is that Surveyor, M.D. Monsarrat, encountered trouble with several native informants on Lāna'i. A fact which he attributed to the influence of Walter Murray Gibson.

Palawai, Lanai.
May 26, 1877
M.D. Monsarrat (Surveyor); to W.D. Alexander (Surveyor General)
...We arrived all safe last Wednesday evening… Keliihue the widow of Nahuina (who showed us Kamoku boundary and part of Kalulu), I interviewed last Thursday, and she now pretends not to know much about anything. I think the trouble is that Mr. Gibson has had trouble with them by saying that they did not point out the boundaries right to us…

I have come to the conclusion that the natives of Lanai are a mean crowd. It is really too bad that I should lose two days humbuging with Kamaainas. I have had a horse saddled and will go and see them now and try and arrange matters with them. I expect they are all frightened with Capt. Gibson. I have never know Kamaainas to act in this way before as they are generally very willing to come…

Don't you think we could make them come by getting an order from the Governor telling them to come. Hoping to hear from you soon... [Hawai'i State Archives, DAGS 6 Box 1 – Survey]

Palawai, Lanai
June 2, 1877
M.D. Monsarrat (Surveyor); to W.D. Alexander (Surveyor General)
Since writing my last letter I have found an old Kamaaina by the name of Pali who has been absent for some time. He gives his age at ninety nine and is pretty helpless as I had to lift him off and on his horse. I could not get him to come for less than two dollars a day but I think that he is worth it as he seems to be very honest. He puts Kamoku boundary the same as Keliihue and not wrongly as Papalua did… [Hawai'i State Archives, DAGS 6 Box 1 – Survey]

Boundary Commission Certificate and Records for Kamoku Ahupua'a

Typically, the ahupua'a brought before the commissioners for certification of boundaries were only those which were privately owned. Government and Crown lands were infrequently decided in this forum. On Lāna'i, however, all thirteen ahupua'a (5 private holdings, and 8 Crown or Government holdings) were certified by the Commissioners of the Maui (2nd) Judicial Circuit.

The full set of records of the Boundary Commission—the applications for certification of boundaries, testimonies of kama'āina and surveyors, metes and bounds, and proceeding notes—from the ahupua'a of Kamoku are cited below.

Kamoku Ahupuaa
District of Lahaina, Island of Lanai
Boundary Commission, Maui, Volume No. 1 (pages 114-115)
No. 37–A
Survey of the Crown Land of "Kamoku" Lanai
Commencing at a pile of stones over a cross cut in a large stone on South side of Kaumalapau Harbor on edge of gulch. The boundary runs:

1. N 86° 27' E true 3254 feet along Kalulu up South edge of gulch to a stone marked with a cross on edge of gulch a little above a branch that comes into the main gulch from the South. Thence:

2. N 88° 46' E true 5225.9 feet along Kalulu, up South edge of gulch to a cross cut in a stone on South edge of same. Thence:

3. N 84° 40' E true 2594 feet along Kalulu to head of gulch. Thence:

REF-220

4. N 72° 43' E true 2080 feet along Kalulu to a cross cut in a stone amongst a lot of stones at the former site of an old Heiau called "Ili o Lono." Thence:

5. N 46° 19' E true 10144.4 feet along Kalulu up road to a point a little North of a cactus clump marked by two triangular pits.

6. N 65° 44' E true 4939 feet along Kalulu along North edge of crater to a redwood post on the North wall of the crater at a place called Pulehuloa near Keliihananui's house.

7. Thence along Kalulu down across a small ravine (coming in from the North called Keaaku) to Government Road and up the N.W. edge of the Kapano Valley, passing near Kawaonahele's house to a point on ridge marked with four triangular pits and ditch thus [diagram cited in original]; said point being a little east of Puu Nene and bearing N 44° 53' E true 8052 feet from above mentioned red wood post. Thence:

8. N 45° 49' E true 1067.9 feet along Kalulu across valley passing to the S. E. of a water hole called Kaiholena to a red wood post on ridge that comes down from the central mountain range. Thence:

9. N 62° 37' W true 6742.5 feet along Paomai down above mentioned ridge and across valley into a small ridge and down said ridge to a red wood post at end of same.

10. S 84° 37' W true 1316.8 feet along Paomai to a cross cut in a stone.

11. S 74° 8' W true 6258 feet along Paomai passing to the North of a couple of Hala clumps to two Triangular pits at an old house site.

12. S 74° 07' W true 3045 feet along Paomai to a cross cut on a stone at head of gulch.

13. N 86° 6' W true 1368 feet along Paomai down South side of gulch.

14. S 83° 45' W true 1455 feet along Paomai to a cross cut in a stone.

15. S 74° 9' W true 920 feet along Paomai.

16. N 55° 12' W true 898 feet Paomai across gulch to a red wood post a little West of a cactus clump; here ends the Crown land of Paomai. Thence:

17. S 65° 58' W true 1617 feet along Kaa down North side of gulch to a cross on a stone.

18. S 64° 57' W true 2040 feet along Kaa down North side of gulch to a cross on a stone. Thence: [page 114]

19. S 70° 33' W true 3590 feet along Kaa to a point 10 feet East of a large rock with cross cut on it. Thence:

20. S 68° 53' W true 1664 feet along Kaa to Sea Shore. Thence:

21. S 1° 55' W true 13460 feet along sea shore to point of Commencement.

Area 8291.09 Acres.

Surveyed by M.D. Monsarrat, Assistant
Hawaiian Government Survey
Lanai. June 1877. [page 115]

1878
Lanai - List of Lands and Length of Coast Line
List of lands and length of Coast line of of for the island of Lanai:

Kamoku 1.54 Mile Crown...
[Hawaii State Archives, Interiror Department Letter Book, Vol. 15:110]

December 14, 1878
D. Mamaki to Chas. T. Gulick
Record of Boundary Commission Surveys, Lanai
Na Aina ma Lanai i Hooponoponoia imua o ke Komosina P. Aina o Maui &c &c.
Wm. L. Moehonua...

...Lands on Lanai which were settled before the Commisioner of B. Of Maui, &c., &c., Wm. L. Moehonua.

	Names of Lands	Names of Land Owners	Paid to Commission
Paid	Kealiakapu	W.M. Gibson	$28.00
Paid	Palawai	W.M. Gibson	$23.35
Paid	Kaohai	.R.H. R. Keelikolani	$22.10
No	Kalulu	Aina Lei Alii	$20.60
No	Kamoku	Aina Lei Alii	$22.10
No	Kamao	Aina Aupuni	$20.35
No	Kealia (A.)	Aina Aupuni	$24.10
No	Pawili	Aina Aupuni	$20.60
No	Kaunolu	Aina Aupuni	$24.10

I am directed by the on. L. Aholo to reply to your letter to him of the 10th of Dec. Above are the lands settled before the Commissioner. The Commisioner gave me Ten ($10.00) Dollars for each land that was copied in the records. Therefore, there are 6 lands remaining for which I hve not been paid, $60.00. But W.L.M. told me that on his return from Honolulu after the Legislature had finished, then make payment. But he died.

These are the thinks that I can explain to you... [Hawaii State Archives, Interiro department lands]

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Alanui Aupuni – Government Trails and Road Ways

In the ancient land system, trails crossed the landscape, both mauka to makai, and laterally along the shore and at various elevations. All of the kuleana and grant lands described above, included the right of access under Kingdom Law. As a result of western contact, and the development of wagon and horse trails, a more formalized system of roadways was needed. By 1847, King Kamehameha III promulgated a law establishing the "Alanui Aupuni" (Kingdom/Government Road) system. Major trails that provided access around islands and between primary places of habitation and business were integrated into the Alanui Aupuni system and maintained through funding from the government and public work days by tenants of the lands through which the roads and trails passed.

Beginning in the mid-1850s, native and foreign residents of Lānaʻi began documenting, in written form, government and community public service efforts in developing a road system that would facilitate not only foot traffic, but also cart/wagon traffic to major locations in the uplands and along the shore of the island. Several Alanui Aupuni routes were identified on Lānaʻi. These included five major points of access, as well as one for which little information has been found:

1) The road from Mānele landing to the uplands through Pālāwai Basin;
2) The road from Pālāwai Basin to Kōʻele;
3) The road from Kōʻele to Awalua or from Kōʻele to Keōmoku;
4) The road from Awalua to Keōmoku;
5) The road from Keōmoku to Naha, up to Waiakeakua flats and down into Pālāwai; and
6) The road that follows the Kalulu-Kamoku Boundary down to Kaumālapaʻu Harbor.

From these major routes, smaller trails provided native tenants with access to their personal properties and resource collection areas. Kingdom Register Map No. 1394 (Figure 1) is the master map of the Alanui Aupuni on Lānaʻi and is the basis of the routes that are protected under the Highways Act of 1892. Kingdom trails identified in list items under numbers 2,3 and 6 pass through Kōʻele, which was the "hub" of the island. These three ancient trails between the uplands and coast were later dedicated as significant government roads. Today the alignment of the original foot trails, which later became the Alanui Aupuni have largely been built over, or abandoned for the new County and State roads.

May 26, 1854
Forty-second Day.
House of Representatives
The House was called to order at 1 o'clock P. M.

…J. Richardson for the Committee on Roads and Public Improvements presented a report, recommending that the Petition from Lanai asking that $1,000 be appropriated for the road from Kihamaniania to Kahalepalaoa be laid on the table… [Hawaii State Archives]

Mei 28, 1870 (aoao 1)
Nupepa Kuokoa
Ka Moolelo o ka Ahaolelo 1870
… A motion was made by Ke. Kaluapihaole to appropriate $2,000 in the budget for a road from Kihamaniania to Manele on Lanai. Let it be considered together with the Bill for Appropriation… [Translator, Kepā Maly]

Apelila 26, 1897 (aoao 3)
Nupepa Ka Makaainana
Nee ka Hana Hou ia o na Alanui o Lanai-Kaululaau.
The work has begun again on our roads this year. On the 22nd day of March, work started on the road the runs from the landing at Awalua up to Koele. It has been two weeks or more. Also, this week the work began on the road from Maunalei. S.K. Peleaumoku is the supervisor. In the past years, our landlord [F. Hayselden] was the road supervisor. Only recently has our friend [Kapeleaumoku] in the Maaa winds of Kahalepalaoa been given the task.

This is the first time that a native has been given this work to do, it has not been known to have happened in the Interior Department before, that someone's name was taken at his place of residence. He has taken the work with skill and thoroughness. Blessings upon the one who does this work.

A. Kaaloa
In the Kumumaomao wind of Keomoku, Lanai. [Translator, Kepā Maly]

June 23, 1898 (page 1)
Evening Bulletin
Lanai Road Appropriation
The Senate This Morning.

…The House amendments to the current accounts appropriation bill were resumed where left off yesterday, with the following results:

Roads and Bridges:

…Road from Koele to Awalua, Lanai. $500. Yes…

April 18, 1899
Cecil Brown (W.M. Gibson Estate) to J.A. King, Minister of the Interior)
Reports on Koele-Awalua Road; Awalua Landing Closed;
Manele Landing Used
Sir:–I note that there is to the credit of Lanai Board account a sum approximating $144, and also an appropriation by the last Legislative Assembly of $500 more.

This last amount i believe was for a specific road, i.e. from Koele to Awalua, the then [main] landing for Lanai. The conditions now however, are changed, for

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since the appropriation was made, the landing at Awalua has been wiped out, and the buildings and pens there and the road have been washed away by freshets, so that as a landing Awalua is no longer a port.

Representing as I do as Administrator of the Estate of W.M. Gibson, the largest interests on the Island of Lanai, I beg to draw your attention to the following facts:

The principal business with the estate I represent, is, that of raising cattle and sheep, and the wool of said sheep. You will by reference to the tax books, find that we pay the majority of taxes on said island.

In consequence of high winds and floods of rain, the Awalua road has been for the past year practically useless. So much so that last years clip of wool is still in warehouse in the interior of the island.

On May the 1st next, shearing will commence, and within 3 months another clip of wool will be taken off. This will and also the clip of last year must be transported to a landing where a steamer can take it. The only port now available is Manele on the south east point of Lanai.

I would therefore ask Your Excellency to direct that the $500 appropriated for road from Awalua to Koele be applied to road from Koele to Manele.

I have seen Mr. Hassinger and he has a map that will more fully explain the requirements.

I will guarantee that the money will be properly and economically expended, and I will furnish Your Excellency detail bills of expenditure properly endorsed and authenticated…

Yours very truly,
Cecil Brown
Administrator and Executor
Under the Will of W.M. Gibson, deceased.

Date	April 18 1899
Rec'd	" 20 1899
Ans'd	May 9 1899
From	Cecil Brown

Executor Under the will of W.M. Gibson deceased

Request that the apprn. of $500—for Road "Koele to Awalua" be changed and expended on road Koele to Manele.

[Hawaii State Archives – Interior Department, Roads]

May 9, 1899
J.A. Hassinger, Chief Clerk, Interior Department, to
Cecil Brown Esq., Administrator & Executor Under
the Will of W.M. Gibson, deceased
…I am directed by the Minister of the Interior to acknowledge receipt of your favor of April 18th, ult. In re Appropriation by the last Legislature "Road from Koele to Awalua Landing Lanai, $500." And asking for reasons given that the same may be applied to a "Road from Koele to Manele" and to say that the matter having been laid before the Executive Council for consideration, the Minister is advised that the appropriation for Road from Koele to Awalua was a specific one and cannot be transferred any other work… [Hawaii State Archives, Interior Department Letter Book, Vol. 102:60]

Mei 19, 1905 (aoao 4)
Nupepa Kuokoa
Na Lala Papa Alanui
(Members of the Road Board)
…Lanai. Charles Gay, S. Kenui, S. Keliihananui.

April 13, 1906 (page 6)
Hawaiian Gazette
Old Boards Wiped Out
Lanai Road Board Members Disbanded
Responsibility for Roads Turned over to Maui County
Yesterday Acting Governor Atkinson was engaged in writing polite letters to the members of the various old road boards throughout the Territory, thanking them for the services they had given the public, and informing them that as the money with which they had worked was now exhausted, and as the road business had all been handed over to the counties anyway, their commissions would be revoked. So another relic of the old system passes away…

…Island of Lanai.

Lanai – Charles Gay (chairman), S. Kenui, Keliihananui…

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DESCRIPTIONS OF THE CULTURAL-HISTORIC LANDSCAPE OF KŌʻELE AND ADJOINING LANDS–ENVIRONMENT, RESIDENCY, LAND USE, BUSINESS VENTURES AND RANCHING

Native traditions (moʻolelo), like those cited earlier offer us a glimpse into the beliefs, life and practices of native Hawaiians on Lānaʻi in the period prior to and just after western contact. A large body of historical records from the ahupuaʻa of Kamoku, and lands in the area of Kōʻele, fill out the story and explain how the landscape changed Between 1820 to 1951. This section of the study includes several primary sources of documentation which describes — (1) Resident and Visitor Communications From Kōʻele and Vicinity; (2) Mission Station and School Documents from Kihamāniania and Kōʻele; (3) 1863 to 1989—Historic Residency and Land Use; (4) Kōʻele Transitions to Seat of Ranch Operations and Primary Settlement in the Uplands of Lānaʻi; (5) The Estate of Walter Murray Gibson; (6) Charles Gay Purchases the Gibson Lānaʻi Estate And Enters into an Agreement to Purchase Government And Crown Lands on Lānaʻi; (7) Kōʻele and Lānaʻi Ranch Operations Under George Munro and Ernest Vredenburg; and (8) Lanai Ranch To Be Discontinued.

The narratives below are filled with the history of place, people and changes in residency and land use practices in the area of Kōʻele and on the island of Lānaʻi, as related to operations from Kōʻele. The narratives date from the 1820s to the 1950s, and include the earliest descriptions of Lānaʻi and the uplands of the Kōʻele vicinity.

Resident and Visitor Communications from Kōʻele and Vicinity

Native Lānaʻi residents and others, both Hawaiian and foreign, penned numerous accounts describing Lānaʻi and lands of Kōʻele and vicinity between 1852 to 1938. The narratives identify residents, the character of the landscape, share stories of place, and name residents appointed to government posts.

Iulai 20, 1852
P. Nahaolelua to G.P. Judd
Notice of the names of officials under the office of the Governor of Maui and neighboring islands...

...Noa Pali Tax Assessor, Kihamaniania. District 6... [Hawaii State Archives, Series 71, Gov. Letters] [Translator, Kepā Maly]

January 17 1853
Privy Council
Title Granted on Lanai Land Commission Awards
to Pali & Kalaihoa in Kamoku
Present His Highness John Young
Lorrin Andrews Secretary
Prayers were read as usual
Minutes were read and approved…

Mr. Lee read the applications of… Kalaihoa & Pali for land on Lanai.

Res. 2.

Resolved; That the Land Commission be and is hereby authorized to award Fee Simple Titles to Pali (Claim No. 10630)… and Kalaihoa [No. 3719 B]… as surveyed by Asa, containing respectively 112 ¼ & 75 1/4… [Hawaii State Archives]

December 10, 1853 (page 2)
The Polynesian
Wahi Koho ma Kihamaniania
The names of place where votes will be taken to choose the Road Superintendent of the island of Maui, Molokai, and Lanai in the year 1854… The School house of Kihamaniania on the island of Lanai.

P.H. Treadway,
High Sherriff of Maui [Translator, Kepā Maly]

Nowemapa 16, 1867 (aoao 4)
Nupepa Kuokoa
Ka holo ana e Kaapuni ia Hawaii…
A Journey around Hawaii… October 21. A boat was gotten to travel to Lanai. It was dark when Mrs. Kapuuhonua, Luku (and I), sailed. Lot Kuaihelani instructed me to care for them on Lanai. That they should not wander about. Around midnight we landed at Manele, and were cared for by the younger brother of Mr. Pualewa.

October 23. At noon, we took three horses for ourselves, and we ascended to Kihamanienie. I admire the uplands of Lanai, it is a good land. There is dirt in the uplands, not lots of stones, it is very good. Lanai is foremost of the good, small islands.

Oct. 24. Many people came together to hear the news, and my speaking was completed, they gave $4.00. Here is what astonished me. There is not a clean church on Lanai. Kihamanienie is broken apart, and the goats sleep in it when it rains. Aloha nui to Rev. N. Pali and S. Kahoohalahala.

By Rev. Kaukau [Translator, Kepā Maly]

February 29, 1868 (page 3)
The Pacific Commercial Advertiser
Election Day on Lanai
Mr. Editor: The interest you take in the capacity of the Hawaiians for an appreciative exercise of free political action, induces me to send you this report of proceedings, eminently illustrative of such capacity, which took place at the election precinct of the Valley Island during the late ballot for Representatives.

The place for holding the polls, Kihemanienie [Kihamaniania], is a dilapidated meeting house, a more remnant of a thatched shed, sustained by tottering portions of a crumbling cobble-stone wall. Not more than fifteen feet square of

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old thatching overhead afforded a scanty shelter from a drizzling shower all day to inspectors, candidate and an anxious crowd, chiefly interested in preserving their saddles from a soak of rain.

There were present, according to the clerk's report, 111 out of 128 were registered voters; and as 12 of the 128 were absent from the Island on business at the time of the election, it will appear that only five voters remained at home, indifferent about the exercise of their political privilege. However, it was stated that they, being very old, could not ride on horseback; and the state of the island roads would not warrant the dispatching of a vehicle to aid in securing their presence at the polls, although a cart was held in readiness by an enterprising candidate for such a purpose…

September 21, 1872 (page 2)
Nupepa Kuokoa
Sightseeing at Lanai
E ka Nupepa Kuokoa e. Aloha oe:— Would you and your associates grant space for this this explanation of some of the famous places of Lanai so that our many friends from Hawaii to Kauai might know of them, should they come to visit Lanai. [Having landed at Awalua] They are thus:

From Awalua, Polihua is west, and from Awalua, Keahiakawelo is south. West of there is Nalehua o Kapoai and the lehua of grove of Malulani. Then beginning from Keahiakawelo going to the southeast, you arrive next at Kanepuu. To the east of Kanepuu is Hoopulapulamoa, then the kula (open lands) of Kaa. From here, one may then see to Kihamanienie, and the valley cliffs of Kaiholena. Traveling from Hoopulapulamoa on the kula of Kaa, there are two pili thatched houses along the side of the trail. That is Kukuikahi, and from there you go straight to the residence of Holokahiki. You may then ask Holokahiki about the trail that ascends to Kaiholena, where the fresh water spring of those who resided at Palawai, Kealii and Pulehuloa, Kihamanienie, Kiekie, Nininiwai. That is the water for bathing and where their horses are watered…

This is a good land, the natives help the visitors who pass by on horse. So we give our warm aloha to Kamai, Hao, Palau, Iosepa and Naeole for their help offered to us, with the horses, and to those who welcomed us, Holokahiki, Lapaki, Ohua and Kekawewe. I now return to Molokai to rest at Kawela. Aloha to you.

S.A. Kanakeawe.
Waialua, Molokai, Sept. 9, 1872 [Translator, Kepā Maly]

Iune 30, 1899 (aoao 3)
Nupepa Kuokoa
Holomua o Lanai
Maunalei Plantation Development
Greetings to you, Editor— I am here, looking at the work occurring on this land of ours, the cultivation of sugar cane, is being done. The railroad and the wharf warehouse work is moving forward. Waterholes are dug, six have been made,

and the sugar cane is presently growing. Sixty or more acres are laid out with planting slips, 200 acres have been cleared with the plows, and shall be properly covered in the months between August to December… There have been built 46 house, for the laborers, for supplies and the livestock, and a store, coffee house and hotel, and the houses are all shingled. There are also wire fences. The suffering of the people of Lanai is ended. Here, can be purchased all types of things.

On Sunday, at 7 oʻclock, the journey set out for the mountains of Lanaihale, the place where Kaululaau glued shut the eyes of the ghosts, leaving only Pahulu. At 11 oʻclock, we reached the mountain, and held a service and sermon, and when finished there was an enjoyable luncheon; at 2 oʻclock, we turned and went below to Palawai. Monday, we traveled about the land to see the places where they are digging for fresh water, and arrived at Koele, the residence of Fredrick Hayselden and Talula who welcomed us for lunch. We visited and saw the dishes from which Kalakaua had eaten. They continue the cherished work from the time of their own father [W.M. Gibson]. So admirable. There was much food, and fat sheep. From them, we also saw the newspaper pertaining to the death of Kapiolani, there is no hope in this, we are now without her.

Tuesday, we looked about the land. There are many families, some with 13 children, 17 children, who have no home or no land. I gave an acre to one family, to enclose, to make a water cistern, and build a house. One to cultivate the land, planting oranges trees, avocados, mangoes, breadfruit and all kinds of edible fruits.

Wednesday, we returned to lunch with Talula and Hayselden. They gave us a fat sheep for supper. We then returned to sleep at Maunalei…

G.W. Mahelona.
Kahalapalaoa, Lanai. 25, June, 1899. [Translator, Kepā Maly]

July 28, 1900 (page 2, column 6)
Maui News
Rain on Lanai
Fred. H. Hayselden who has arrived from Lanai reports there has been rain on the higher uplands of Lanai since January 1st. "There have been 65 rainy days this year with a rain fall for the season of over 30 inches," said Mr. Hayselden. "The rain this year has been better distributed than usual and the dry season has not thus far been seriously felt on the island." [Maui News – July 28, 1900, page 2, c. 6]

July 28, 1900 (page 2)
The Maui News
Vegetables in Markets from Koele
A new industry has been developed on Lanai which is going to make its promoters rich men, if persevered in. And it is a little thing too, simply the raising of vegetables for the Honolulu Market. Honolulu is not the only marked that such an industry will eventually read, and with the really superb quality of vegetables

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raised there, a new and permanent industry has been developed. Success to the enterprise.

February 9, 1901 (page 3)
The Maui News
Government Pound on Lanai
In accordance with the provisions of Chapter 36, Section 456, of the Civil Laws of 1897, I do hereby give notice that a Government Pound has been established for the Island of Lanai, at Koele, Nanae; the same being located on the mountain side of the Government road near the Ranch Houses.

David Steward, Esq., has this day been appointed, Pound master for the above Government pound.

J.A. McCandless,
Supt. Of Public Works.

October 20, 1903 (page 1 & 8)
Evening Bulletin
Lightning Plays Lively Pranks at Gay Lanai Ranch House
(Norfolk Island Pine and Other Features at Koele Hit by Lightning)
The fierce electrical storm which has been reported as having raged extensively on both Maui and the leeward side of Hawaii seems to have played even more havoc on the small island of Lanai than it did in either of the other places mentioned. The storm struck Lanai on Thursday night of last week and did a great deal of damage. The Gay ranch suffered the most from the fury of the elements. One horse and a cat were killed, two native men were slightly injured, a horse was knocked down, and finally Charles Gay's ranch house was struck by lightning. All this damage was done in less than an hour.

According to the story of the Mauna Loa officers, the Gay ranch house was struck by no less than four different bolts of lightning. At the time this happened there were several Hawaiians in the house. They had been out fishing and were outside the house engaged in cleaning the fish they had caught when the storm suddenly came up and they were driven inside by the rain, which came down in torrents. They stayed in the kitchen.

One bolt of lightning struck the roof of the house just about the pantry. The lightning passed through the pantry roof and floor, apparently doing no damage with the exception that it bored two neat little holes where it passed through the floor and ceiling.

A couple days later the occupants noticed a very disagreeable odor emanating from under the house just where the bolt had struck. On investigation, a cat was found under the hole which had been bored by the lightning. Poor pussy had evidently crept under the house for shelter and had been struck by the lightning.

The bold of lightning doing the damage struck the kitchen. It passed through the roof and hit the stove which was completely demolished. A great part of the wood

work of the kitchen was also badly splintered. At the time the lighting struck the kitchen several of the Hawaiians who had sought shelter from the rain were there. One of these was hit on the head by the lightning and received a burn, which, luckily is not a serious one. Another Hawaiian was struck in the back but escaped without serious injury.

The other two bolts of lightning which struck the Gay house did not hurt any living being. One of them came through the roof and passed down the partition between the kitchen and another room. It also struck a gun which was leaning against the wall. The lightning following down the barrel, did not damage it, and passed through the floor into the ground. The fourth bolt struck a four by four corner post of the house, splintering it part of the way down until it struck an iron ramrod and leaving it again, ran into the post which it splintered the rest of the way down to the ground.

In the field a short distance from the ranch house a horse was struck and almost instantly killed. Another horse was knocked down by the thunderbolt. A native was taking the bridle off this horse when the lighting struck the bridle and knocked it out of his hand. The horse was knocked over, but soon recovered. The Hawaiian escaped injury.

Friday, October 23, 1903
Hawaiian Gazette
Much Lightning Visits Lanai.
Lightning seems to have struck harder and oftener on the little island of Lanai than on Maui in last week's thunderstorm. Charles Gay's ranch house was struck by bolts three or four times in succession. Other strokes fell about the premises. One horse was killed and another knocked down, while a cat underneath the house lost its ninth life.

Fortunately, although a number Hawaiian fishermen had taken shelter from the storm in the ranch house, there was no loss of human life. Two natives received slight injuries, one from shock and the other from burn. The damage to the house was principally in the kitchen, where the lightning demolished the stove.

[Archaeological field work conducted for the original resort development uncovered one of the ranch trash pits, and pieces of the stove were recovered, giving the crew a rough date in that strata of the pit.]

Ianuari 12, 1917 (aoao 5)
Nupepa Kuokoa
Kuu Wahine I Aloha Nui Ia Ua Hala
(My Greatly Loved Wife Has Passed Away)
…Would you please enter onto some available space in your columns cherished by the Nation, the story of my wife, that all may know, those residing from the portal of the sun at Haʻehaʻe to the fluttering rays of the sun at Lehua. The story about my beloved wife…

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She was born at Lopa, Kaohai, Lanai from the loins of Keawe Kekahialii-o-ka-Moku and Namohai-o-Kahekili, [named for] the King of Maui, on the 13th day of September, 1861, and died on the 16th day of November, 1916. Being equal to 55 years, 2 months and 3 days. Here is what is known of her genealogy:

Kanekeleia (m) lived with Kekuahilo (f), and Puhipuhi (f) was born. Puhipuhi lived with Keawepuupuu (m), and Keawekekahialii (m) was born. Keawekekahialii lived with Namohaiokahekili (f), and Keliihaulelio (f) [or Lepeka, who married] John Eli Kekipi, she being my beloved wife.

Here are things pertaining to her youth… During her childhood, she was taken by her grandparents in the Hawaiian custom of adoption, being Uwenaole (m) and his wife, and was taken to live with them on the shore of Manele; the boat landing at this time. From there she went to the school at Kihemanienie, the school house of Lanaihale. She was first taught by Levi Pali. This is not his honor Pali, Pilipo Pali, but a Pali of Lanai. Her second teacher was Judge Kahoohalahala. He was her last teacher there. She then left Lanai for Honolulu…

Yours always in truth,
John E. Kekipi
Koula, Honolulu, Nov. 23, 1916 [Translator, Kepā Maly]

October 11, 1917 (aoao 3)
Ka Hoku o Hawaii
Ka Huakai i na Hono a Piilani
(A trip through the Bays of Piilani, by Steven Desha, Sr.)
The ocean between Lahaina and Lanai was perfectly calm, and we traveled comfortably to Keomuku, where we disembarked on the shore of this land famous on the ancient history of Hawaii.

There, our native hosts greeted us and we traveled to their home in the uplands of Kihamaniania, that is a place nearby to Koele, the residence of the Manager of the Ranch of Baldwin and Company.

We rode on horseback, and went along the shore to Maunalei. Then from Maunlei we followed the road to the uplands of the island. Along the shore of the island there are growing kiawe trees, which have become valued on the land, as it the seedpods are food for the livestock, and the wood is valued as fire wood and charcoal. It is at times taken to Lahina for sale at the market and is sold at a good price because it is excellent charcoal... [Translator, Kepā Maly]

June 1935
Mid Pacific Magazine
"Plant Collecting on Lanai"
[In 1934 F. Raymond Fosberg, of the Bernice Pauahi Bishop Museum conducted a survey of Lānaʻi's flora. Writing of his trip, he observed that Lānaʻi was in a degraded state but was still host to biological wonders. In the 83 years since Fosberg's visit, it is even more critical now for the land owner, residents and agencies to work together to ensure that the last vestiges of the island's unique

character and natural history are not forever erased. Fosberg's work was based out of the Munro home at Kōʻele.]

The island of Lanai, when viewed from the sea or from neighboring islands, presents a dry, barren, and most uninteresting aspect. It is little known, compared with the other islands of the Hawaiian group and general belief about conditions on Lanai tends to agree with and confirm the impression gained from a distant view-point. The widespread opinion about this island is that there is no rain that the forests have been well-nigh destroyed, and that there is nothing there to see but a huge pineapple field.

In botanical literature with the exception of many descriptions of plants peculiar to Lanai, the island has been neglected. Hillebrand, in his Flora of the Hawaiian Islands scarcely mentions Lanai, while he discusses the other islands to a considerable extent. Rock, likewise, in his fine book, The Indigenous Trees of the Hawaiian Islands, dismisses Lanai with a single paragraph. Writers in other branches of natural history have remarked about the almost complete denudation of the forests on this island, saying that there are only a few acres of forest left on the top of the highest mountain.

When, last November, through the courtesy of the Hawaiian Pineapple Company and the kindness and hospitality of Mr. George C. Munro, of Honolulu, and Mr. and Mrs. James Munro of Koele, Lanai, I was enabled to collect plants on Lanai for a week. I went expecting to pick up the last remnants of a dying flora. I was certainly in no way prepared for the wonderful condition in which I found the forests of the island. Lanai furnishes a striking example of what vigorous efforts at conservation may accomplish, also of what the native Hawaiian forests will do for themselves when protected and given a chance. How this change has come about is a story well worth telling.

It is the story of the efforts, over a period of more than twenty-three years, of a man with a rare combination of keen interest in and love for plants, strong business ability and the vision to see far enough ahead to realize the potential value of the miserable remnants of forest which remained when he took over the management of Lanai Ranch. The fact that there is today a fine forest, and consequently a dependable water supply, on Lanai is the direct outcome of the work of Mr. George C. Munro, until he retired as manager of Lanai Ranch. Mr. R.L. Usinger, entomologist of the Bishop Museum, and I were fortunate enough to be conducted over the island by Mr. Munro, who told us of his conservation work, pointing out the differences between conditions which exist now and those which prevailed twenty-five years ago.

At that time the forests were being rapidly devoured by thousands of head of wild cattle, goats, deer, sheep, and pigs. Soon after he arrived, Mr. Munro declared war on these animals. Many of the wild cattle he ordered driven into [page 1] large corrals, to be domesticated and used as breeding stock for the ranch, as the ranch was under stocked at the time. The other animals he hunted down relentlessly, killing them by thousands.

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Today they are almost, if not completely, eliminated. There is probably not a pig or cow or goat left wild on the island, and the deer and sheep, if any remain, are so few as to be negligible. The mountains were then fenced off and even the ranch cattle kept out. From that time on, the native forest on Lanai began to come back. Many plants were introduced from other places to help in this replot the mountains with forest but, though some of them have flourished, the important elements of the new forests are the native trees and shrubs which have always grown there. One introduction, molasses grass (Melinis minutiflora), is apparently of great value in protecting the bare land at the lower edge of the forest from erosion while the forest gradually spreads…

A great many sisal plants were growing near Koele where they were not wanted. Mr. Munro had them dug up and hauled out to the region where the wind-breaks were necessary. Here furrows were plowed and the great rosettes of thick, leathery leaves of the sisal were planted in long rows where the wind-breaks were to be. They soon took root and grew. The thick leaves resisted the attack of wind-blown sand and the plants multiplied by suckers and bulblets, forming dense hedges. Meanwhile on the leeward sides of these rows were planted rows of Eucalyptus which grew in the protection of the sisal. As each row of Eucalyptus got well started another was planted to the leeward of it. Each successive row was [page 2] able to grow a little higher because of the protection of the preceding one. Ironwoods of a species which sends up a great number of sucker shoots were planted among the Eucalyptus, the result being, at present, a dense strip of solid vegetation sloping up from the row of sisal on the windward side. Its effectiveness in protecting the land from the wind is strikingly demonstrated at points where there are for some reason gaps in the strip. Here, at each gap, is a swath cut through the vegetation on the leeward side, filled with wind-blown sand, and extending for hundreds of feet down wind. In the shelter of these wind-breaks the forest has completely eliminated wind erosion for a considerable distance… [page 3]

June 1938 (pages 21 & 27)
Paradise of the Pacific
Lanai Thirty Years Ago [1908], by Henry P. Judd
Koele Ranch Headquarters and the Mountain Landscape Described
The island of Lanai, although close to Maui, is one of the least known and visited of all the Group. Before it was developed into a pineapple plantation about fifteen years ago, it had been known simply as a cattle ranch and visitors were few and far between. Now it is the home of thousands of field workers and many of the tons of pines sent down to Honolulu for canning.

The Lanai of 1908 was an isolated community. An Interisland steamer made weekly visits and at times a whale-boat or launch would come over from Lahaina. There were no airplanes, no radio, no automobiles, no tractors or other modern implements. It was the horse age, the kerosene lamp age, the days of the ice-box from Lahaina and the weekly visit of the Mikahala from across the channel. And Lanai had all the charms of that age, free from the rush and nervous haste of the modern days. There were times for real conversation and for communion with Nature, for long walks or rides all over the Island, for getting in touch with the

native life of the Islands and for enjoying a genuine vacation. It was an ideal spot for all these things.

Mr. Charles Gay, formerly of Kauai, was the owner of Lanai in 1908 and it was a privilege to have been his guest for ten days or so… The population of Lanai was then less than one hundred and fifty, about half being at the headquarters of the ranch, Koele, and the remainder at Keomuku, and the east coast. Koele was an ideal location for the ranch house. It was at an elevation of about 1,800 feet and the meant cool nights and a splendid climate. Mr. Hayselden, a former manager of the ranch, had set out many tree and other forms of vegetation. Some of these trees had grown very tall and could be seen for miles away from the ranch house. The garden and the main house and cottage, together with the wool-warehouse, houses of the employees and other buildings all made up a little settlement, the very center of the island.

Several impressions registered themselves deeply in my mind as a result of the visit. One was the charm of the mountain to the east of Koele… Another impression was the simplicity of life among the people. They were largely cowboys, workers on the ranch of Mr. Gay; some however who lived at Kahalepalaoa, or at Keomuku, on the coast, were fishermen. These unspoiled natives were hospitable and it was a privilege to have been with them in visits to the various points of interest on Lanai. Their interest in hunting goats was remarkable and it was one of the stunts for the visitor to be taken to the place where the goats were in greatest abundance. It was estimated that the goat population was about 10,000 in those days and that number could not have been far from fact, for these pests were to be found here and there and everywhere. I engaged in several hunting trips with Mr. Gay and some of his men and was surprised at the great number of these wild animals.

There was a drought in 1908 that bothered several of the ranches in the islands. Cattle died on Lanai from lack of water; the present system of pipe-lines to the western lands had not yet been introduced. The goats felt the need of better feed than could be found in the lower lands and so they often made sorties to such good spots as Kanepuu. Riding along from Koele house out to Kaa, we frequently came across bands of goats. They ran into the dry forest and tried to escape the destructive fire of our Winchesters. One day's hunt at Kaapahu resulted in a decrease of about 350 in the goat population. Another attempt at the old landing place, Manele, was not as successful. The goats refused to be driven and broke time and time again through the line of Hawaiians from the top of the high ridge down to the sea…

Among the Hawaiians living in Palawai Basin was one of the oldest men on the island—Simona Petero Ioane Keliihananui. He was of the ancient type, a well-built man, blessed with a white beard and looked upon as a real kamaaina of Lanai. His little kuleana was on the edge of the Basin. On one of our hunting trips, we came across him in a far-off spot, cultivating a water-melon patch in a most forbidding place, unlikely for successful crops. But the soil was rich right there and he knew what he was doing…

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…The impressions of a land of vast pastures dotted here and there with cattle and sheep, with many wild goats running about in many places, of charming mountains and ravines and ridges, of beauty spots here and there, of old-time hospitality, of generous entertainment and of delightful days, enjoying everything God and man had made, are the things that will abide in memory's hall of pictures as among the finest pictures of all…

Mission Station and School Documents From Kihamāniania and Kōʻele

Records of the Christian Mission Station, based out of Lāhaina, are comprised of letters, journals and articles describing religious and secular instruction, construction of church, school and meeting houses, and the perceived conditions of the native residents. The selected excerpts date from 1825 to 1932, and include some of the earliest written narratives describing Lānaʻi and lands of the Kōʻele environs. The American Board of Christian Foreign Missions (A.B.C.F.M.) records were digitized by Kepā and Onaona Maly in 2004, at Harvard University as a part of a larger research project that was undertaken by their firm, Kumu Pono Associates LLC. The digitized collection is part of more than 200,000 records that they have gathered from the A.B.C.F.M. and other repositories. Selected records are cited at www.lanaichc.org.

July 1825 (page 234-235)
Missionary Herald
Keopuolani, Queen of the Sandwich Islands
Died on September 16th, 1823, while in residence at Lahaina
Lineage Connected to the Chiefs of Lanai
Keopuolani was greatly beloved by her people... Her native disposition was remarkably amiable and conciliatory, and her treatment of her subjects was ever humane.

We are informed by her biographer, who is a missionary at the Sandwich Islands, that she was born on the island of Mowee [Maui], in the year 1773; that her father's family had governed the island of Owhyhee [Hawaii] for many generations; and that her mother's family belonged to the islands of Mowee, Woahoo [Oahu], Ranai [Lanai] and Morokai [Molokai]. Her grandfather was the king of Owhyhee when it was visited by Capt. Cook, in 1777 [1778-1779]... [Missionary Herald, July 1825:234-235]

August 9, 1825
Letter of William Richards
Describes Progress of Instruction - Four Schools Established on Lanai
(Not named, but Kihamāniania, for the Kōʻele community, is one of those schools)
…The islands of Ranai and Morokai have, till within a few weeks, been entirely without teachers. To the former [Lanai], I last week sent a man, who is to act as superintendent of four schools, which are to embrace all the people of the island. There are a few people there, who have frequently visited Lahaina, and when here, have always been in our schools… Of the number of pupils which will be embraced in these schools, I can form no estimate, as I have yet received no

report, and the island never been explored by any of our number… [Missionary Herald, June 1826:174-175]

July 11, 1826
Extracts form the Journal of William Richards
Four schools examined on Ranai (Lanai).
…four schools examined on Morokai; and four from Ranai, embracing 373 scholars… [Missionary Herald, May 1828:150]

October 15, 1828
Extracts from the Lahaina Report;
People on Lanai assemble for prayer and instruction; Lanai statistics given.
...You are already aware that this place is the center of missionary operations for Maui, Molokai, Lanai, and Kahoolawe…

Examination of the Schools.
During the summer and early part of the fall of 1828, subsequently to the arrival of the late reinforcements, owing to an increase of their numbers, the missionaries at Lahaina were enabled to make tours over Maui and the small island adjacent, for the purpose of preaching the Gospel, examining the schools, and giving the people such counsel and encouragement as their circumstances required.

	No. of Scholars					
Island	Sch'ls.	Mal.	Fem.	Writers	Readers	Total
Ranai	11	236	249	31	201	485

...A great proportion of the pupils are persons of middle age, and still they have learnt to read the Scriptures. According to the estimate we made, only one fifth of the scholars are under fourteen years of ages... The population of Ranai is at 2,000 or 3,000... [Missionary Herald, July 1829:208-211]

November 2, 1830
Mission Station Letter - Schools and Population on Lanai
School Statistics
...Lanai 9 Schools 522 Scholars 231 Readers 254 Writers...
...During the summer past a regular census has been taken... 2,000 is the probable population of Lanai... [Missionary Herald, August 1832:51]

December 25, 1834
Wm. Richards: to Rev. Rufus Anderson, Secretary of the A.B.C.F.M.
Recounting Trips to Lanai in 1828 and 1834
(Describes the upland plantation on Lanai – the area of Kōʻele as the only significant village in the region)
As it is especially desirable that you have correct information respecting all our fields of labor, I prepare in this letter to give you some account of Lanai, the little island which lies directly opposite Lahaina & about seven miles, distant. You will perceive by the accompanying map [map not in files with this letter], that its greatest length is about 17 ½ miles and its greatest breadth is about 12 miles. The land rises from the shore to the interior, and terminates in lofty points. The sides of the mountains are cut up by innumerable ravines or alternate ridges and

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hollows. But these valleys are not like the valleys on the windward side of the other islands, furnished with openings & rivulets.

There is but one permanent brook on the island [Maunalei], and that is so small that it is all lost in a few small talo [kalo - taro] ponds, and their fare does not reach the shore except in the wet seasons of the year. There is not a well of good water on the island, except such as are prepared after the manner of the Hebrews. These wells, though few on Lanai, are common at many parts of the Sandwich Islands. They are either natural or artificial pits, sometimes only a few feet in diameter, and at other times many yards. They are so prepared as that when it rains the water for a distance may flow into them. There are steps to go down into them, but they are not often very deep. In places where they are exposed [page 1 – Reel 797:762] to direct light & from the wind, they are uniformly covered and even where they are not thus exposed they are often covered, to prevent the water from drying up as soon as it would otherwise. Some of these wells are never exhausted even though they are not replenished for eight or nine months. Others which are small, depend entirely on the almost nightly rains which fall on most of the high mountains of the Sandwich Islands, though in many places these rains are little more than heavy dews.

There are many people who make no use of water for washing either themselves or their clothes, except the dew or water on the grass and sometimes, there is so little of this that they resort to the juice of the succulent plant which they collect. Most of the people however, have two places of residence, and only spend a part of the year on the mountain where there is also a great scarcity of water. In the sea shore, both at Lanai and throughout the islands, with few exceptions, there is a full supply of brackish water, but such as none can drink except those who are accustomed to it. I know not a single well on the Sandwich Islands, supplied with water from the bottom, except such as are on the sea shore on a level with the sea.

Owing to the scarcity of water on Lanai, the inland is barren almost beyond conception. I have recently been quite round the island, and visited every principal village on the island except one, and during my whole tour, I saw but one good well of water; and no spring or brook, and I saw nothing growing which was suitable for food, either for man or beast, and nothing grows except sea weeds and sea grass. I should except a few cocoanut trees and two or three [page 2 – Reel 797:763] or four have trees.

Most of the people live near the shore for the purpose of taking fish in which the shores of Lanai abound, and a considerable portion of their vegetable food they receive from Lahaina, in barter for fish. [Kōʻele] <u>There is however one inland plantation</u> of some extent, which furnishes considerable food. It is watered by the mist or light rain which falls during the night, in sufficient quantities for the growth of potatoes and in wet seasons some upland – taro is raised. There are few people that reside at that place constantly, but considerable number who reside generally on the shore, go up & spend a month or two at a time so as to keep their land under cultivation, and then return again to the sea side where they can have abundance of fish, and water too, much as it is for there is a plenty of that which is brackish.

The numbers of inhabitants on the island, has been estimated at about 1600; but at the present time I think there are not so many though there has been no regular census of the island taken & it is impossible to make such an estimate as can be relied upon.

The island is always under the same governance as the island of Maui, but the direct care of it has for years been given to Kapeleaumoku, an elderly man, who is a member of our church, and a man of established reputation. Several years ago I wrote an account of a most striking incident in his life, which fell under my personal knowledge & which I designed to have sent you at the time, but did not get it copied to go with my other letter, and so it was neglected. In a letter of mine written Oct. 15th, 1828 [page 3 – Reel 797:764] I alluded to a tour around the island of Lanai, made by myself in company with the Princess, a promised a full account of it. The following is from my journal kept at that time, but which was never sent.

Lanai, July 22nd, 1828.
This morning at sun-rise, I left Lahaina, and crossed the channel with the Princess in a double canoe and arrived here about 10 oʻclock. The distance is not more than 8 or nine miles, but it is slow rowing a canoe against the strong currents which often prevail here. It is not very safe crossing the channel in a canoe for between the islands the winds are strong, and sometimes rise unevenly so that canoes that sail with only a pleasant breeze, are soon driven before a heavy wind to such a distance that they cannot reach the land, or which is more common, are overwhelmed by the waves, & find a quick end.

Another problem arises from the multitude of sharks which often infest the shores of this island. The surf on many parts of the island breaks at a distance from the shore and within the reef is a distance of a mile or more of still deep water. In bad weather, canoes are exposed to be filled in crossing the reef, but the natives are so expert at swimming that they do not consider themselves in any danger except from the sharks.

David Malo told me that as he was crossing the channel a few years ago several canoes in sight of his, were filled and the people were under the necessity of returning to the shore. He saw a large [page 4 – Reel 797:765] shark take a man in his mouth and swim along on the top of the water, so that the man's head was exposed; and while in the mouth of the shark he heard him speak and distinctly say the name of his wife, though what he said respecting her they could not understand. Some supposed that he was conveying her to their care, and others supposed he was openly expressing his affection for her. A few minutes after this, the same, as was supposed, shark returned and took another man in a similar way.

We had a pretty good passage over though the wind was rather high before we landed. As soon as we arrived, inquiry was made by the Princess for Kapeleaumoku, who left Lahaina yesterday noon, in a single canoe, that he might give notice of our arrival & make some preparation for the reception of the Princess. The people have heard nothing respecting him, and it is supposed that he is either lost at sea, or has been driven by the wind to Molokai on Molokini.

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Canoes have been dispatched to those islands, and also back to Lahaina in search for him. It is probable however that he and his wife and two adopted children who accompanied them are all in the bottom of the sea, for a calabash known to have his mark upon it, has been found on the beach driven on shore by the wind. His friends are much agitated and many are wailing from the apprehension that he is dead. As soon as the canoes were dispatched to the other islands & men had started on foot to go round the coast of this island in search for him. We again took our canoe, sailed around the [page 5 – Reel 797:766] south point [in the Hulopoʻe-Mānele vicinity] and landed at the south east part of the island [in the Kahalepalaoa vicinity].

We then ascended the mountains to this place [Kōʻele-Kihamāniania] which is about four miles from the shore. The top of the mountain is at the east of us. This is the only inland village on the island and the only spot on which food will grow during the dry season of the year. At present, there is considerable verdure, there having recently been more rains than usual. But there are no springs of water, and the people suffer much on their account. They wash their hands and food in the dew, and bring the water which they drink from a distance, where it is caught during the rains in a pit prepared for the purpose. Food is carried from this place to all the other parts of the island. It is a pleasant place & there is a large school house here, which is occupied as a meeting house [at Kihamāniania].

The teacher of the school here, is a valuable man. He was connected with the school of the Princess at Lahaina, and was selected by her to take charge of all the schools in this district. He resides here most of the time, but occasionally goes to Lahaina and leaves the schools under the care of another teacher.

Wednesday, 23rd.
I was waked at about one o'clock this morning by the loud talking about the good occasion by the news that Kapeleaumoku & wife are still alive and have landed on the northern part of this island [the Awalua-Polihua vicinity]; but the two children are dead. We shall ascertain the particulars when we reach the shore.

At sun rise I commenced the examination of the [Kihamāniania] school, and was gratified to find so many able to read. About one half of the scholars can read easy sentences, and about [page 6 – Reel 797:767] one third can with considerable facility read any book which is given them. I have in course of the day examined 237 scholars, and have preached well to attentive audiences. Some of my heathens have never heard the sound of the gospel before except from native teachers, and probably never will again. The people are fast wasting away, but alas, how few know or have the means of learning the way of life. How they need the Bible which they could read, they might then better do without any one to break to them the bread of life.

After examining the schools at the place where we staid last night and preaching to the people there, we came over the mountains to this place, Maunalei, which is on the northern part of the island. We are about two miles from the shore in the only valley on the island where running water is to be found. It is a small brook, so small that during the dry season of the year it does not reach the shore. There is timber of considerable size here, but which is of no value in building as it is not

durable. There is no valuable timber on the island, though it is obtained of sufficient size for their small thatched houses… [page 5 – Reel 797:768]

1837 (page 5 & 12)
Lahaina Station Report
Meeting House at Kihamaniania
…The people have built a grass house nearer the center of that island, intended for meeting on the Sabbath. Mr. Richards appointed a Sabbath to go & dedicate this building to the Lord; but the ship called for him too quick. I also once or twice appointed a time to go, but medical calls from the families prevented my going. There are two teachers on Lanai, from the High school, who are doing something to enlighten the people, & train the children, but there have been no examinations of schools connected with Lahaina Station, during the past year… The people of Lanai have also often entreated me to ask for them a missionary; they have 1200 people. Probably 200 on the island would derive as benefit from preaching as 1000 or 1200 would in almost any other place.

D. Baldwin. [Hawaii Misson Children's Society Archives]

Malaki 23, 1843 (aoao 106)
Ka Nonanona
Lanai, Feb. 1, 1843.
No ka Hemahema o Kekahi Luakini ma Lanai
(Pertaining to the Difficulties with the Church on Lanai - Kihamaniania)
…Hear ye, o people who build churches in these islands, you should look to us and our work at this church. This is the fourth year of work on this house. It is not completed. One side collapsed, and we have built it again. We had to carry the sand, bake the coral, and the building yet remains to be done.

As I look at this work, there is much incompetence. The place for the water is far away. The water is about one and one half mile distant.

Here is the distance for the coral and the sand. It is four and one half miles distant, on the south side, and also if it is gotten from the east side.

Here is the distance to the stones, two miles away.

Here the stones that are close, are gathered like the taro, that is how the stones are gathered. Our work is very unskilled.

In our thoughts, we desire to complete our church, a place in which the word of God may be spoken. The native houses are not adequate in this place, for it is very cold, and not good for the visitor come with only a shoulder wrap. Here is what is needed, a strong (thick) clothing.

Therefore there is a great need for the stone house in this place. Here also is this difficulty, there is no timber. The long wood for timber is but scattered about. If it was perhaps four (feet) long, and a yard, then it could be done.

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We greatly desire to complete our church this year. But it shall not be seen at this time. The people who are making this house, some of them have gone away. Three of the brethren have died, and are in the body of the Lord.

One church of ours is there on the eastern side of this island, it is not in difficulty like this house. It is close to the coral, the sand, the stones, and the water. The only difficulty is the fire wood, that is the only thing which is gotten from some distance away.

So here is a question, if you who think of my testimony about the difficulties of this house, is it right, or is it wrong what I have explained?

Done by me, Kaliliaumoku.
Teacher at Kihamaniania. [Translator, Kepā Maly]

September 20, 1845
Rev. Cochran Forbes' trip to Ranai (Lanai) and visit to Kihamaniania.
[Reverends Cochran Forbes and Dwight Baldwin visited Lānaʻi (written Ranai) in 1845. This being Forbes' first visit, the scenery was new to him, and he took the time to describe the land and people in his journal (Forbes, 1984). The visit included a visit with meetings at Kihamāniania and the Kōʻele community.]

Sept. 24.
On the 20th left home about sunrise for Ranai in company with Bro. Baldwin… We landed safely however, after about 3 hours sail, at Kaunolu [this being the section of Kaunolu on the Keomoku side of the island], where there is a meeting house… Monday morning after meeting with them we went by canoe to Maunalei, the place of the teacher Waimalu. There we again met with the people of that neighborhood & prepared to ascend the mountains to visit the people on the south side. The north side is a miserable, arid barren rocky place, except a few rods of low sandy soil, evidently made by the wash of the sea, on which grows a sparse, coarse kind of grass.

When we reached the high land we found the air much more cool & invigorating and after we had crossed the ridge the soil became better and vegetation more lively. There is an extensive piece of tableland there, perhaps 10 miles one way & 3 or 4 the other, on which are very few stones. There we spent the night & met with the people, near 200 in all who had come together to hear & see the strangers. Pali the Lunaauhau [tax collector] for the whole island resides at this place called Kihamaniania. His influence is manifestly good. We found several pious people around him & himself a good man. He told us that his little children only 6 & eight years old had read the Bible through. He also gave us a list of all the men and the women & children on the island, the whole numbering 584 inhabitants. Most of the chiln. [children] are in school and very few of them who are 12 years old that cannot read.

The atmosphere was cool & invigorating at Kihamaniania. We spent the night there and early in the morning held another meeting with them, after which we

left amid many greetings for the seaside at Kaohai, Pia's place… [Forbes (1845), 1984:168-169]

Okatopa 20, 1866 (aoao 4)
Nupepa Kuokoa
Luakini ole ma Lanai
On the island of Lanai in the first days of September, on the Sabath, I went to the service at Maunalei. There is only a shelter for the Church, though I thought there was a building there. I saw that it is only a shelter, and the walls are all broken. There is only rubble and dirt to sit on and there are many dogs that go inside, and also many goats and sheep which go in as well. It is the same in the uplands at Kihamaniania. In the time when Kaliliaumoku and Malulu were living it was a solid stone house. Now it is a house for animals. This is perhaps what has happend with the Churches on Lanai, for the people of Lanai care for animals. The goats and the sheep, and they are fishers. Many of them live at the coast. They are able to earn money by fishing, and with the livestock...

S.W. Nailiili.
Puehuehu, Lahaina. [Translator, Kepā Maly]

Records of the Kihamāniania and Kōʻele School Lots

Schools and Churches were built in populated areas, where the most people could be converted and educated, and where communities could be found to support operations. Early in the Mission Stations' tenure, the school for the Kōʻele community was established at Kihamāniania. Use of the lot was formalized by the Kingdom in 1853 (Figure 3), and the dual purpose of school and church was generally separated. The small communities of Lānaʻi could not support both school and church facilities so they were for the most part maintained for both functions.

The Kihamāniania lot was abandoned by 1880, though a cemetery at the site was still used until ca. 1924 (SIHP Site No. 50-50-98-1946). In the period between 1916 to 1924, school house development at Kōʻele transitioned from a lot at the ranch headquarters (a one-room school house), to a ten-acre lot on the side of the ranch, between Kihamāniania and a shallow gulch known as Iwiʻole. An Exchange Deed between the Territory and HAPCo, covering the old Kihamāniania parcel—along with other abandoned school and church lots in the government inventory, School/Church Grant No. 25, Lots 1-5—was entered into in 1924. The transaction established the Kōʻele School Complex, which served the Kōʻele and plantation community until 1937.

September 17, 1853
School Grant 25, Apana 1
School Lot at Kihamanienie, Lanai
School Grant 25, Parcel 1.
Beginning at the North corner and running:

South 50º East 8.00 chains along Konohiki;
South 40º West 2.50 chains along Konohiki;
North 50º West 8.00 chains along Konohiki

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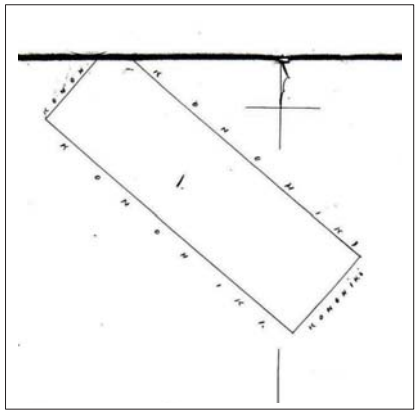

North 40º East 2.50 chains along Konohiki to the place of beginning.

Area 2.00 Acres

Approved Sept. 17th, 1853 [page 282]

Figure 3. Copy of 1853 Plot Plan of the Kihamanienie School Lot (Hawaii State Archives)

Maraki 4, 1857 (aoao 3)
Ka Hae Hawaii
Hoike Kula ma Lanai
(Kihamaniania School Examination)
To the Hae Hawaii. Aloha to you:—On Thursday, that is the 25th day of December, there was a school exhibition on Lānaʻi. It was at nine o'clock in the morning, and Maunalei school was the first. S. Halekai is the teacher…

At 10:30 o'clock, the School at Kihamāniania did its exhibition. S. Kahoohalahala is the teacher, and there are 34 students: 22 in Science; 12 in Reading; 12 in Mapping; 12 in General Arithmetic; 5 in Written Arithmetic; and 9 in music…

I admire the intelligence of these schools; the knowledge of the youth of Lanai progresses. If the are patient and continue going to school, listening to the teacers, the people of Lanai will be wise. H. Hanemo is one of the parents of the children whom I admire. The have learned and are intelligent in doing the work. Lanai is enriched, their thoughts are happy, and they really want it. It is a result of the teachers in my mind.

Here also is this that I admire. There was a meal that day; prepared by the parents, and supplied with the food for their children. All of the people of Lanai came together, they ate and were filled. Afterwards, the school master spoke words of encouragement, and also some of the other people. That is the end of our work that day. Aloha to you.

Done by me, R. Koiku.
Kahalepalaoa. Dec. 31, 1856.
[Translator, Kepā Maly]

December 12, 1857 (page 8)
The Polynesian
Election Polling place at Kihamaniania
The name of the voting place for House of Representatives on the island of Lanai in the year 1858 is: The School House at Kihamaniania

P.H. Treadway,
High Sherriff of Maui. [Translator, Kepā Maly]

February 29, 1868 (page 3)
The Pacific Commercial Advertiser
Election Day on Lanai
Kihamaniania School House in state of disrepair
…The place for holding the polls, Kihemanienie [Kihamaniania], is a dilapidated meeting house, a more remnant of a thatched shed, sustained by tottering portions of a crumbling cobble-stone wall. Not more than fifteen feet square of old thatching overhead afforded a scanty shelter from a drizzling shower all day to inspectors, candidate and an anxious crowd, chiefly interested in preserving their saddled from a soak of rain…

August 14, 1888 (page 1)
The Daily Bulletin
The Lanai English School at Koele
[By 1864, W.M. Gibson had established an English language school on Lānaʻi where native and white children could study and learn in English. In 1884, the Hawaiian Legislature passed a bill funding an English language school at Kōʻele (Hawaiian Gazette, July 23, 1884:3). The school was established in 1885, and served both Hawaiian and English speaking children. A report from the 1888 examination of students was published in the Honolulu paper, The Daily Bulletin.]

Koele, Lanai, July 28.
The annual examination of the English Government School of this place, took place yesterday. People came from every part of the island to attend it—and were well repaid for the long journey in many instances taken. This school contains somewhat over thirty natives and half-white children and Miss Jane D. Albro, the Principal, has good cause for being proved of her scholars during the three years of her incumbency. The children this year have shown marked improvement in their various studies, especially in writing, arithmetic, and reading, and more particularly in the latter, the inflection of voice being remarkable; and yet not remarkable either, when it is known what a finished reader the teacher is herself.

Miss Albro intends leaving for her well-earned vacation and rest, and there were not many dry eyes amongst the little ones, when she shook hands with some and kissed others good-bye. The parents of these children are singularly fortunate in having an accomplished lady, a teacher of many years' experience, and a kind sympathetic friend, to guide them in their studies. The Board of Educations should build a cottage for the teacher. As it is, she has to curtain off a portion of the schoolroom for her private use.

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November 9, 1911
Lanai Uka School House Description (Lelehaka, Near Keliihananui's House)
(Figure 4)

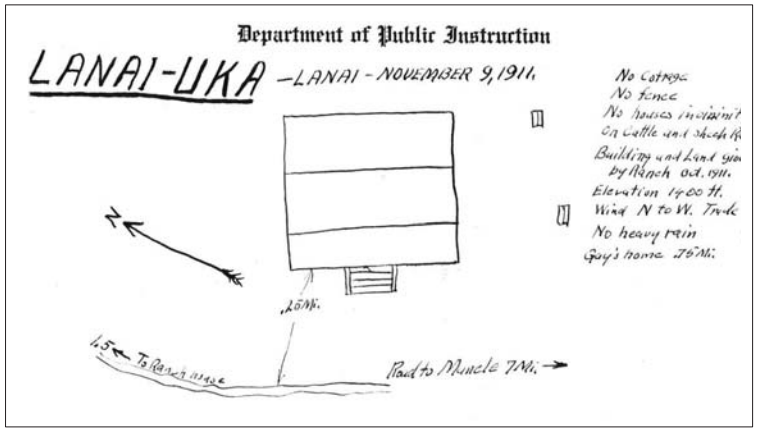

Figure 4. Lanai-Uka School House at Lelehaka
(Hawaii State Archives, Public Instruction Series 261, box 82)

Kupuna Venus Leina'ala Gay Holt, daughter of Charles and Louisa Gay, and born at Keomoku Village in 1905, recalled circumstances around moving the school to the location cited in this document. During an interview when she was 100 years old, she spoke about the Pālāwai (Lanai – Uka School).

''There was a school down at Pālāwai, where all the children from Kō'ele and Lālākoa, all walked for miles down into Pālāwai, where there was a school. A one room school. So all the kids from Kō'ele would go down the road. And we, up in Lālākoa would come down, and go down all the way down to this section.

They built the school down at Pālāwai. Instead of building the school right near there, no. They built one down at Pālāwai. Not only that, there was another old time citizen down there. That old man, Keli'ihananui was the big shot. He lived down at Pālāwai."

It was her understanding that because Keli'ihananui had mo'opuna living with him that the school had been moved nearer his home (pers comm., December 17, 2005).

Based on Kupuna's memory, and Public Instruction Records, the Kō'ele school was closed for a while. We find that in 1916, the school was in the process of being relocated back up to the rand headquarters at Kō'ele. The new Kō'ele building remained a part of the ranch operations, as a school and then later a residence for cowboy families (Kauakahi and then Richardson) until the development of the resort in 1988. At that time the community

advocated for preservation and adaptive reuse of the old-school house/ranch residence, and the building was moved by Castle & Cooke for restoration, which never occurred (see section of study below, titled "Preservation of Two Ranch Homes for the Elder Cowboy Families").

November 14, 1914 (page 8)
The Maui News
School Attendance
Island of Molokai and Lanai

…Lanai-uka.

Enrollment June	–	9.	
Enrollment October	–	0	Closed. Decrease 9

Lanai-kai.

Enrollment June	–	27.
Enrollment October	–	35. Increase 8…

December 29, 1916 (page 1)
The Maui News
$65,500 asked for New School Houses
(New one-room school house at Kō'ele built)
Out of a total budget for general and special fund for the schools of the territory of nearly a million dollars for the next two year period, Maui has an allotment of $113,500. This budget was considered and approved by the school commissioners in Honolulu last week, and will be reported to the legislature as a basis for appropriation…

…Lanai, 1 school room and cottage combined (1500) $1500

1923 – 1924 (pages 12 & 95)
Biennial Report – Department of Public Instruction
School Development on Lanai
New buildings have been erected on Molokai and Lanai to care for the increase in the school population due to the expansion of the pineapple industry and the rehabilitation project. The buildings of these districts are in fair condition...

Koele School

Principal	–	Miss Rith P. Walker
Teacher	–	3
Students	–	94
Grades	–	1-8 [Hawaii State Archives]

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January 3, 1924
Hawaii State Archives, Land Patent Grant 5011
Koele School Lot (Figure 5)
Hawaiian Pineapple Co. Ltd. to Territory of Hawaii
Description of Koele School Lot (1924)
Being a portion of Grant 5011

To Walter M. Giffard
Within the ahupuaa of Kamoku, Lanai, T.H.

Beginning at a pipe at the North corner of this lot, from which Government Survey Triangulation State "Pohoula: is by true azimuth 155º 45' 30" and distant 4794.2 feet, and running by true azimuths:—

1 - 342º 06' 594.00 feet along the remainder of Grant 5011 to W.M. Giffard, along Charles Gay Lot to a pipe, (at 90.0 feet passing over a pipe at the West corner of Charles gay Lot);

2 - 72 º 06' 660.00 feet along the remainder of Grant 5011 to Walter M. Giffard to a pipe;

3 - 162 º 06' 726.00 feet along same to a pipe near edge of gulch;

4 - 263 º 24 1/2' 673.10 feet along same to the point of beginning and containing an area of 10 acres…

Fred E. Harvey, Surveyor. [Hawai'i State Archives, Public Instruction Series]

February 8, 1924
Land Patent Grant 5011
Frear, Prosse, Anderson & Marx (for Hawaiian Pineapple Co. Ltd.) to W.C. Crawford, Esq. Asst. Supt., Public Instruction
Lanai School Lot Grant 25, Lots No. 1-5

…We are instructed by our client, Hawaiian Pineapple Company, Limited, to make the following offer:

The Hawaiian Pineapple Company, Limited, is will to convey to the Territory of Hawaii. For school purposes, a portion of the land of Kamoku, Island of Lanai, containing an area of ten acres and a portion of the land of Palawai, Island of Lanai, containing an area of 0.497 acre, description of maps of which parcels are enclosed herewith [Maps not included with HAS letter packet, in exchange for a land Patent covering the following parcels]:

School Grant 25, Apana 1	2.00 acres	Kamoku, Lanai;
School Grant 25, Apana 2	1.00 acres	Paawili, Lanai;
School Grant 25, Apana 3	1.00 acres	Maunalei, Lanai;
School Grant 25, Apana 4	1.00 acres	Palawai, Lanai;
School Grant 25, Apana 5	2.00 acres	Lelehaka, Kaunolu, Lanai;

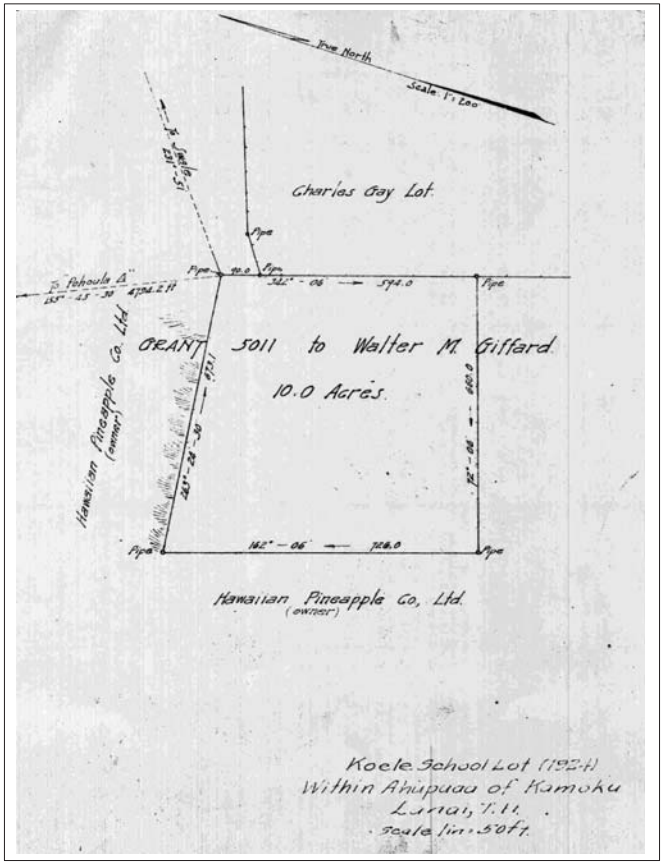

Figure 5. New 10-acre Koele School Lot. Ahupua'a of Kamoku, Lanai. T.H. (Hawaii State Archives)

Church Lot	2.00 acres	Kaunolu, Lanai
Catholic Church Lot	1.00 acres	Kaohai, Lanai

Total area, ten acres.

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If this proposed exchange meets with your approval will you kindly forward the same to the Commissioner of Public Lands with a request that the same be completed… [Hawaii State Archives -Public Instruction Series]

February 11, 1924
Hawaii State Archives, Land Patent Grant 5011
W.C. Crawford, Deputy Superintendent., Public Instruction, to
C.T. Bailey, Commissioner of Public Lands
Exchange of Lanai School Grant 25, Lots 1-5

…I am enclosing herewith a copy of letter from Frear, Prosser, Anderson & Marx, on behalf of the Hawaiian Pineapple Company, Limited, as well as the descriptions of land which they intend to give us in exchange for some school and church grants.

The exchanges which they suggest are satisfactory to us and I shall appreciate it is you can make the transfers, as per their suggestions, as soon as possible.

The plan is to continue the present school at Keomoku or Lanaikai, which is on the .497-acre piece of the Palawai land, and to transfer the Koele or Lanaiuka School to the new camp site, which is about two miles distant… [Hawaii State Archives -Public Instruction Series]

March 15, 1924
Hawaii State Archives, Land Patent Grant 5011
Commissioner of Public Lands, to
Frear, Prosse, Anderson & Marx (for Hawaiian Pineapple Co. Ltd.)
Exchange of Lanai School Grant 25, Lots 1-5
…Please be informed that your offer on behalf of the Hawaiian Pineapple Company, Limited, to exchange land of Lanai for school purposes, submitted to this office through the Department of Public Instruction, came before the Land Board at its last meeting and the exchange suggested approved.

The descriptions submitted will be sent to the Territorial Survey Office for check and when these are returned, proper documents to complete the exchange will be prepared and forwarded to you for execution…

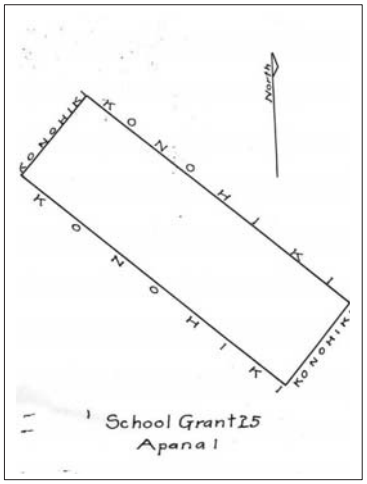
March 21, 1924
R.D. King, Deputy Surveyor, Territory of Hawaii
Royal Patent Grant 25 - Lanai School and Church Lot Surveys
Territory of Hawaii to Hawaiian Pineapple Co. Ltd.
School Grant 25, Apana 1; Church and School lot at Kihamanienie, Kamoku, Lanai. Beginning at the North corner and running,

South 50º East 8.00 chains along Konohiki;
North 50º West 2.50 chains along Konohiki;
North 40º East 2.50 chains along Konohiki to the place of beginning.

Area 2.00 Acres

Near Chas. Gay's, mauka side of road to Manele. Old church foundation on lot. Pasture land. 8-9-06. [State Survey Division, C.S.F. 4112]

March 25, 1924
Hawaii State Archives, Land Patent Grant 5011
C.T. Bailey, Commissioner of Public Lands, to
J.A. Matthewman, Attorney General
Exchange of Lanai School Grant 25, Lots 1 – Kihamaniania (Figure 6)



…Please prepare exchange deed whereby the Hawaiian Pineapple Company, Limited, conveys to the Territory for school purposes, two parcels of land on Lanai containing .497 acre and 10 acres respectively, in exchange for which the Territory conveys by Land Patent five pieces of abandoned school lots covered by School Grant No. 25 and two so-called church lots, all of which are on Lanai and containing a total of 10 acres.

Description and blueprints of the parcels involved are attached hereto…[Hawaiʻi State Archive. Comm. Public Lands Series]

Figure 6. Kihamaniania Church and School, Lot Grant 25 Apana 1

April 11, 1924 (page 4)
Maui News
Center of Melting Pot
Growing Lanai Population
Hawaii has been called the "melting pot" becasue of the large number of aliens it has been trying to assimilate and truly it has been the meeting point of nations and races. Now it appears that Lanai is to be the center of the caldron. It is likely to have the largest proportion of alien population of any island in the group. Already the aliens preponderate heavily. What will be the outcome one or two generations hence?

Over on Lanai the population has grown, is growing and will grow rapidly. It is largely Japanese and promises to become more and more so. A letter from there to the Board of Supervisors says that it is difficult to get citizen labor for county road work, and much work of that kind is soon to be necessary. As the big

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pineapple project materializes more and more Japanese will go there to cultivate the fields, the experience of the industry in the islands shows.

The Hawaiian Pineapple Comapny is planning much for the comfort and welfare of its employees and their families. It has plans for "Lanai City" with school house, meeting places and other community assets and it is going into the building of its plant and its city systematically. With the completion of the harbor work and the building program much of the citizen labor now there will depart. The result will be a community the progress of which will be most interesting to watch and one where the Japanese problem can be more closely studied and to better advantage than any where else in Hawaii nei. One wonders now whether the community will grow up to be a bit of Japan transplanted into Hawaii or whether American ideals and ideas will spread through it and make the children who grow up there Americans in fact as well as by law.

April 23, 1924
Hawaii State Archives, Land Patent Grant 5011
H.R. Hewitt, First Deputy Attorney General, to
C.T. Bailey, Commissioner of Public Lands
Exchange of Lanai School Grant 25, Lots 1-5

…Complying with your request of the 25th ulti., I have prepared and am forwarding herewith, in triplicate, approved as to form, Exchange Deed whereby the Hawaiian Pineapple Company, Limited, conveys to the Territory for school purposes, two parcels of land on Lanai containing .497 acre and 10 acres respectively, in exchange for which the Territory conveys by land Patent five pieces of abandoned school lots covered by School Grant No. 25 and two so-called church lots, all of which are on Lanai, and containing a total area of 10 acres.

Descriptions of blueprints of the parcels of land involved are also returned herewith… [Hawai'i State Archive. Comm. Public Lands Series]

May 17, 1924
Hawaii State Archives, Land Patent Grant 5011
Commissioner of Public Lands, to
Department of Public Instruction
Exchange of Lanai School Grant 25, Lots 1-5
For your information and files we enclose herewith blueprint of 10 acre lot and blueprint of .497 acre lot recently acquired by this department from the Hawaiian Pineapple Company at your request for the Koele and Lanaikai school… [Hawai'i State Archive. Comm. Public Lands Series]

May 20, 1924
Exchanged Deed
Land Patent Grant No. 8454
To Hawaiian Pineapple Co. Ltd.
Land Exchange
Covering School & Church Lots
Area: 10 acres on the island of Lanai, County of Maui

Consideration: For 10.496 Acres by deed dated Apr. 29, 1924.
Referred to Deed No. 2207.
Commissioner of Public Lands

Received from Office of Commissioner of Public Lands, Land Patent Grant No. 8454 to Hawaiian Pineapple Co. Ltd., for land of the island of Lanai, County of Maui. Area 10.00 acres, also deed executed with this patent.

Frear, Prosse, Anderson & Marx
By C.W. Tracy. [Hawai'i State Archive. Comm. Public Lands Series]

1925 & 1926: Polk-Husted Directory of City and County of Honolulu and the Territory of Hawaii – Lanai

Kauila Mrs. Mary K. tchr Koele School p o Lanai City Lanai
Koele School Mrs. Gladys P. Munro prin. p o Lanai City Lanai

February 3, 1926 (page 1)
Maui News
Lanai is Shown to Honolulans
Hawaiian Pineapple Company Runs Excursion to its Property and Entertains Visitors–Statistics Furnished.
The following facts and figures as to Lanai are taken from a folder which was prepared for the excursionists:

Island of Lanai, 140 square miles, 90,000 acres; located 65 miles southeast of Honolulu; estimated pineapple land, 15,000 to 20,000 acres; option on Lanai taken September 5, 1922; option exercised December 5, 1922; population at that time about 150; present population, 1000; elevation of Lanai City, 1650 feet; building of Lanai City commenced August 1923; number of schools [Figure 7], two; attendance, 150; seven miles of asphalt macadam road o Lanai City, eight to 12 inches thick, and 20 feet wide, widened at turns; maximum grade of road to Lanai City, about 6 percent; water supply lifted 750 feet by electric pump from tunnels in bottom of Maunalei gulch; water brought in six inch redwood pipe through three riders by three tunnels, aggregating 5300 feet in length; capacity of old Kaiholena reservoir, 500,000 gallons; capacity new Kaiholena reservoir, 3,900,000 gallons; electric power generated by 100 KW oil engine generator set, generated at 440 volts, transmitted at 2300 volts; capacity moving picture theater, 450; Kaumalapau harbor development work commenced September 1923; length of break water 300 feet; tonnage of rock in breakwater, 116,000; minimum depth of Kaumalapau harbor, 27 feet; depth of Kaumalapau harbor entrance, 65 feet; length of wharf, 400 feet; number of cattle on ranch at present time, 4000. [Maui News – February 3, 1926, page 1, c. 2]

REF-237

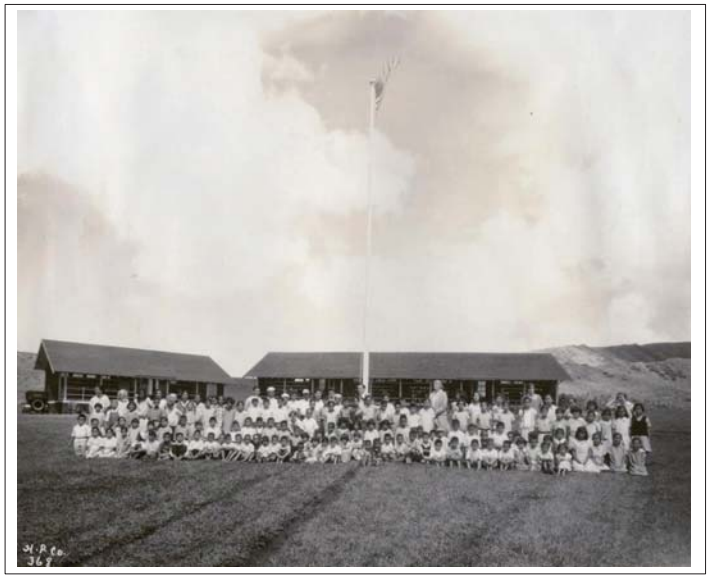

Figure 7. The new Kōʻele School Complex on 10-acre parcel of former pasture lands of the ranch headquarters (HAPCo Photo No. 368). This school served the plantation until 1937, when a new Exchange Deed was entered into between HAPCo and the Territory, and several buildings were moved down to the present-day school site. (Lānaʻi Culture & Heritage Center)

June 22, 1932 (page 3)
Maui News
Lanai School in Big Celebration
Elaborate Commencement Program Closes Year; Hawaiian Pine Hiring Men
(First Graduating Class from the New Kōʻele School)
The first class to graduate from the Lanai City Junior High School was an outstanding one. The twelve graduates unclouded Masaki Murayama, Alice Honda, Liiko [?] Onuma, Harumi Yamamoto, Esperanza Fernandez, Fusae Omori, Shizue Yagi, Joseph Keliihananui, Kozen Higa, Masaki Fujimoto, Mitsugi Kudo, and Haruo Araki.

The program was as follows
Class march; Prayer by Rev. E.E. Pleasant; salutatory by Masako Murayama; son by the class, Mrs. W.C. Bartels at the organ; commencement address by Rev. Pleasant; song, America; Presentation of school letters; diplomas presented

by Mr. Weimer; valedictory by Kozen Higa; farewell song by class. After the farewell song the class was showered with flowers and gifts by friends.

Letters for football were awarded to the following boys: Tom Kreuger, Isao Jyo, Kazuo Takamura, Llewellyn Richardson, Kozen Higa, Sakai Miyamoto, Masaki Fujimoto, Joseph Keliihananui, William Kaopuiki, Haruo Miyajima, Toshimori Takashi, Toshio Matsui and Karuo Araki.

P.P.P. diplomas were awarded the following boys by the Honolulu Advertiser: Sakai Miyamoto, senior champion; Kiyei Hokama, Junior champion; Isao Jyo, student director of P.P.P. Isao received the highest rating possible, a triple AAA.

M.P.S.A.L. track medals were presented to the following boys: Hagime Minemoto, 1st in the running broad jump, 1st in the 50 yds. Dash; Masaru Kido, 2nd in 100 yd. dash intermediates; Isao Jyo 2nd 100 yds. Dash for seniors; Alphonse Malaluan 3rd in high jump intermediate.

The girls awards were represented to Rose Saito, Junior champion, and Fusae Omori, senior champion, for the girls. Presentation of which Mrs. E.L. McTaggart was the director. These two girls were the first to receive school letters.

The school made a splendid showing in athletics and other forms of competition throughout the school year.

Hold Banquet
The eighth grade class of the Lanai City Junior High School gave a farewell banquet to the graduating ninth grade class on Thursday night at the school. In connection with the banquet the eighth grade put on a very splendid program consisting of talks, singing and music. After the program some real old-fashioned parlor games were played by teachers and pupils.

This banquet was the first of its kind ever held on Lanai, and it will establish a precedent for the other classes to follow… [Maui News – June 22, 1932, page 3, c. 1]

1863 to 1989, Historic Residency and Land Use

The ahupuaʻa of Kamoku was retained as a part of the Crown Land inventory on Lānaʻi. The Commissioner of Crown Lands was responsible for managing the land assets, and made tracts of Crown Land available to interested parties in leasehold as a means of generating revenue to support the monarch. The initial applicants for Kamoku were native residents and other Hawaiians who were a part of the failed Mormon experiment that had been established at Pālāwai. Subsequent lessees included two Chinese men, followed by Walter Murray Gibson, who by the late 1870s gained control of the leasehold interests on nearly all of the Crown and Government lands on Lānaʻi. The leases were continued through the early 1900s, when in 1906, Charles Gay entered into an agreement with Governor Carter to exchange fee-simple title in family lands on Oʻahu for the "public" lands on Lānaʻi. While the exchange was contested by Lincoln McCandless, and eventually carried up to the United States Supreme Court, the exchange was completed in favor of Charles Gay and the

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Territory of Hawai‘i. Thus, all claims of the Territory of Hawai‘i to government or ceded lands on Lāna‘i were extinguished.

The narratives cited in this section of the study provide readers with several categories of important records describing land use activities, residency, and transfer of title to land between 1863 to 1989. The documentation is organized in several categories. These include—how Kō‘ele and Kamoku Ahupua‘a transferred from the Crown to the Gibson-Hayselden family, the Gay family, and subsequently to the Baldwin brothers, the Hawaiian Pineapple Company, and ownership in the modern day. The narratives also provide first-hand accounts of residency, the historic landscape of Kō‘ele, and issues that arose in the 1980s with the advent of resort development. The selected records are generally presented in like categories and chronological order.

Kō‘ele Transitions to Seat of Ranch Operations And Primary Settlement in the Uplands of Lāna‘i

The first lessees of Kamoku were Chinese natives who engaged in raising sheep and other livestock on the land in 1863. Walter Murray Gibson arrived on Lāna‘i in 1861, and for a few years, limited most of his activities to rebuilding the Mormon settlement in Pālāwai Ahupua‘a. While Gibson was excommunicated from the Mormon Church in 1864, he retained control of Pālāwai Ahupua‘a. From the home ranch in Pālāwai, Gibson began to expand his acquisition of property on Lāna‘i, including the pursuit of lease on lands owned by native tenants and the Kingdom.

In 1875, W.M. Gibson secured the lease on Kamoku and moved to Kō‘ele from Pālāwai. This move was the beginning of substantial changes on the landscape. Kō‘ele became the heart of all operations across Lāna‘i. Gibson had wooden homes built, expanded the ranching operations, and also attempted several business and settlement schemes. It was during Gibsons’ tenure the first two Norfolk Island Pines were planted at Kō‘ele (gifts from King David Kalākaua). One of the Norfolk pines still stands on the site that fronted Gibsons’ house (later the ranch manager’s house). This tree was the inspiration for planting all other Cook Island Pines across the uplands of Lāna‘i.

In 1878, Gibson appointed his son-in-law, Frederick Hayselden as the manager of Lāna‘i Ranch and island operations. By the time of Gibsons’ death in 1888, he controlled almost all of the land on Lāna‘i through fee-simple and leasehold interests. Of Gibsons’ children, only his daughter, Talula and her husband, Frederick Hayselden, held controlling interests in the estate. Disposition of the assets followed a convoluted path, that ended in 1901 with the Hayseldens’ filing for bankruptcy, and Charles Gay purchasing their holdings. The narratives below are excerpted from a collection of letters, articles and government records that document the evolution of residency, land tenure, and sale of the government interests in Kamoku Ahupua‘a to Charles Gay.

In the years of transition from Kamoku being a place of native residency to the heart of the mixed business operations, native residents of Lāna‘i applied for the right to lease the ahupua‘a and opposed the lease or sale of Kamoku to W.M. Gibson. The communications and conveyances also document forestry and livestock on the island, as well as the development of facilities on the ranch and at Kō‘ele.

April 10, 1863
M. Kenui, District Magistrate of the Island of Lanai; to
Lot Kamehameha, Minister of the Interior, Kingdom of Hawaii
(Petition on behalf of 37 native tenants wishing to purchase certain lands in the Ahupuaa of Kamoku, Kalulu and Kaunolu, Lanai – objecting to sale to W.M. Gibson):
Aloha oe— I, your humble servant, whose name is written at the bottom of this letter, make application that the Lord of the Interior Department, sell certain pieces of Government land situated in the Ahupuaa of Kamoku, Island of Lanai, and a portion of Kalulu and Kaunolu, to us and other persons, whose names are thirty-seven in number.

This is the total of the old residents, and I, having heard that Captain Walter M. Gibson has divided the land which he leased from the Government, and on the 31st day of March past, I called the old residents to come and meet together to think over matters that would benefit us, and after the meeting, I was satisfied that they really wanted the land.

But, because I was in doubt about my being able to get what was right, or that they would approve of what I had done, or that it would be acceptable to them, there, I make petition that my Lord, the Prince, be kind and to inform your servant the price per acre and the length of time which will be given to look for the money, because, this is the first time on the Island of Lanai that an attempt has been made by an association for the purchase of land as herein set forth by me to you. That is what they want to know. And also, because I have hopes that some benefit will be received from the Prince.

If this petition is agreeable to my Lord, the Prince, do not think that we will hesitate about the price per acre which the Prince will name. If we are permitted some time to look for the whole of the purchase price, otherwise, we will be in great distress, and we have agreed that each one strive to make up the quota assessed to each of us, because we greatly desire the land, Kamoku, Kaunolu and Kalulu, on the island of Lanai.

That is what prompted me to make the application, to save the old residents who are living on these lands from any further trouble. They were greatly grieved when they heard that it was going to be disposed of to others, hence, their joining together to have this matter adjusted. And they have appointed me as the Agent over them... M. Kenui. [HSA Interior Department Lands]

Honolulu Nov. 9, 1863
Ahsee (Chinese); to H.R. Highness, Prince Kamehameha, Minister of the Interior:
...I have the honor to make an application for a five year lease at Kaunolu on the Island of Lanai, with the privilege of renewing the same of a further term of five years on its expiration.

The land applied for is rocky and only adapted for a goat pasture. Should your Highness be willing to lease the said land I would offer at the rate of two and a

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half cents per acre a year provided that the land does not much exceed say 2000 acres... [Hawaii State Archives Interior Department Lands]

Ianuari 30, 1865
K. Maakuia; to G. Hapakini (Hopkins)
Natives of Lanai ask to Lease Kamoku and other Government Lands
...With appreciation, I am the one whose name is below. I hereby inquire of you if you might know if that of which we spoke is good, that is the lease of Government lands on Lanai: 1) Kamoku; 2) Kalulu; 3) Kaunolu; for thirty years, at Four Hundred Dollars per year.

I and my assistants wish to ask you to quickly make the lease at this time...

K. Maakuia [Translator, Kepā Maly]

Iune 14, 1865
K. Maakuia; to F.W. Hutchinson, Minister of the Interior
Natives of Lanai ask to Lease Kamoku and other Government Lands
...The undersigned makes application before you to consent to the lease of Government lands on the Island of Lanai, being Kaunolu, Kalulu and Kamoku, for such number of years for such lease as shall be agreed upon by both parties.

And that the amount of rent per annum be immediately made know. And his Excellency is asked to set a day for consultation and for agreeing upon the conditions of the lease between the two parties...

K. Maakuia. [Hawaii State Archives, Interior Department Lands]

March 23, 1866
Honolulu
W.M. Gibson, to F.W. Hutchinson, Minister of the Interior
Regarding Leases on Kamoku and Government Lands, and Native Population
…In compliance with your request I have the honor to lay before the Department, a statement respecting Government lands on Lanai. There are six ahupuaas of land belonging to Government on the island, named: Kamao, Paawili, Kealia [Aupuni], Kalulu, Kaunolu, and Kamoku; comprising about 24,000 acres, with a population of 80 persons. About one eighth of this surface is good arable "dry" land; perhaps one half is more or less adapted for grazing; and the remaining three eights, the portion bordering on the beach, an utter barren waste.

I made application to the Department in October 1862 to lease all of these lands. My application was favorably entertained by the Department, but owing to want of proper surveys, a lease was not made out at the time, as I was informed by letter, written by authority of His Majesty, then Minister. A copy of this letter, dated Feb. 20th, 1863 is enclosed.

Feeling myself fortified by a guarantee from the Department, I proceeded to make improvements; to enclose lands with stone wall, to make roads, construct dwelling for laborers, and cultivate on the Government lands, until my operations

were interrupted by a lease of Kamoku, the most important of these lands, by the Department, to another party. I had expended much labor on Kamoku, which was thus rendered fruitless.

However, I would still propose to the Government to lease the five lands, Kamao, Paawili, Kealia [Aupuni], Kalulu, and Kaunolu. They are now mere commons, upon which roam many thousand head of sheep and goats that do not yield one cent of revenue to the Government...

Accompanying this, a rough draft map of Lanai.— [Figure 8]

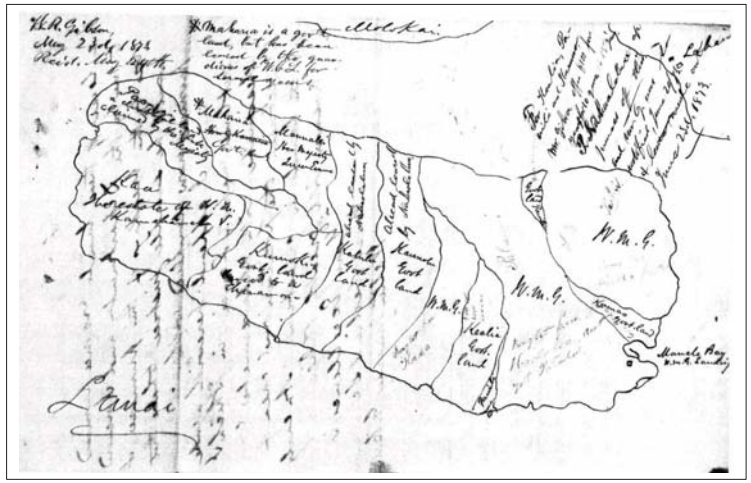

Figure 8. Sketch Map of Lanai with Application of W.M. Gibson [Hawaii State Archives, Interior Department Lands]

[Note: The referenced sketch was subsequently submitted with a letter repeating the lease request to the Minister of Interior, dated May 23rd, 1873.]

September 18, 1866
Palawai, Lanai.
W.M. Gibson to F.W. Hutchinson, Minister of the Interior
Regarding status of Kamoku and other Government Lands on Lanai
I beg to be informed if the Government lands in this island have been rented or leased. A certain number of natives whom I opposed in their destruction of the little shrubbery of the island, in order to make charcoal, assert that the land is in their possession, and have attempted to subject me to a great deal of annoyance. I cannot believe in the truth of their assertion that such a lease has

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been made, in view of the pledge given to me by your predecessor in office, his Majesty.

I am not at all anxious to lease all the Government lands on Lanai. The bulk of these lands, comprised in the districts named Kaunolu, Kalulu and Kamoku, can be better utilized by the native residents at present, and I should waive any pretensions I may have in respect to them; but the smaller lands of Kamao, Paawili, and Kealia, which comprise about one fourth of the Govt. lands, I desire to lease, as they adjoin my own lands.

Your Excellency will observe in the rough draft map I left at the Interior Office, that the lands of Pawili and Kealia are enclosed between my lands of Palawai and Kealia Kapu. Kamao is a barren corner, lying between my lands Palawai, and the leased land Kaohai. There are not more than half a dozen families residing on these small lands, and little or no stock upon them, and they may be properly detached from the bulk of the Govt. lands on the Western half of the island, where the chief part of the population resides.

I trust that some equitable adjustment of these lands will shortly be made, and I beg to be notified respecting any contemplated disposal of them by lease or otherwise...

P.S. It is proper to mention that I have made improvements on Kamao, Pawili, and Kealia, and it would be an act of gross injustice were I to be dispossessed of the advantages to be derived from them, without being allowed a proper opportunity to enter into competition for leasing the lands upon which the improvements are situated, especially in view of the solemn pledge given my by the Interior Department. [Hawaii State Archives Interior Department Lands]

September 22, 1866
K. Maakuia to G. Hopetini (Hopkins)
Application to Lease Kamoku and Government Lands on Lanai
I, the undersigned, make application to you, that the Government lands on Lanai, being 1 Kamoku, 2 Kalulu, 3 Kaunolu, be leased to me at Three hundred Dollars per year, for 25 years... K. Maakuia. [Hawaii State Archives Interior Department Lands]

Nowemaba 23, 1866. Lahaina
P. Nahaolelua; to H.A. Widemann, Interior Department
Kamoku held under lease by a Chinese tenant
Aloha oe— Your letter of the 8th day of October, 1866, instructs that per the Minister of the Interior, all of the Government Lands on Lanai are to be leased.

Therefore I inform you of what has been deposited in my hands by the native Hawaiians, $300. That is the same as the amount being offered for all the unleased Government lands. There remains Kamoku because the land is leased to a Chinese.

Here is the thought of the group on Lanai, that if the Chinese's lease expires, that they make take the land for $100., the same being paid by the Chinese. That is

what they will pay… [Hawaii State Archives Interior Department Lands]

Honolulu. April 27, 1867
Walter M. Gibson; to
F.W. Hutchison, Minister of Interior
Request to Lease Kamoku and Government Lands on Lanai (Figure 9)

I beg to present to you a rough plan of Lanai, indicating its land divisions.

I wish to lease the S.E. corner named, Kamao, situated between my lands, Kaohai and Palawai; and I also wish to lease the strips, named, Kealia Aupuni, and Pawili on the Koolau and Kona sides of the island. These latter small lands, lie between my lands, Kaohai, Palawai, and Kealia Konohiki.

The three large Govt. districts, Kamoku, Kalulu, and Kaunolu comprise about 23,000 acres, or nearly one third of the best land of the island. The lands I desire to lease, contain about 4,000 acres mostly rough Kula land.

I will repeat with more explicit designation the lands I want; Kamao, Pawili, 2 apanas, Kealia Aupuni, 4 apanas, or ilis... [Hawaii State Archives, Interior Department Lands]

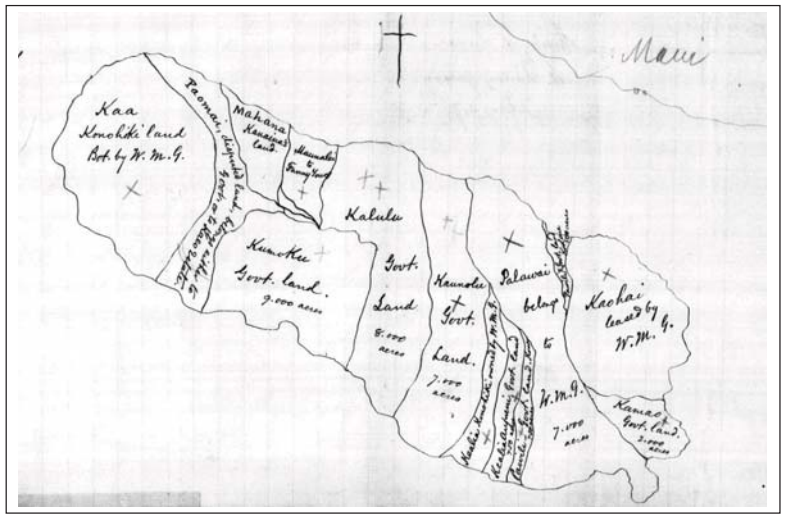

Figure 9. Lanai Sketch Map Depicting Disposition of Lands, April 27, 1867 (Hawaii State Archives)

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Kekemaba 30, 1869 (aoao 3)
Ke Au Okoa
Olelo Hoolaha
Notice Regarding Trespass on Aki's lease of Kamoku Ahupuaʻa
Know all men by these presents, of all character, who see this notice. I strongly forbid, and restrict all people, they may not trespass upon the lands that I lease at Kamoku, Lanai. Only those people who have been granted permission may do so. There are many people who have been doing damage to my leasehold land, mischievously taking Sheep, Goats, and Turkeys. So here is this, if Cattle, Horses, Donkeys or Mules trespass, the fine will be $1.00 per head. If it is Sheep, Goats or Pigs, it will be $0.50 per head; and if Turkeys or Chickens, it will be $0.25 per head. Anyone and everyone who defies the above notice, will be prosecuted to the full extent of the Law in the Court of this Kingdom.
I hereby appoint S. Kahoohalahala as the overseer to care for my land below me.

Aki (Pake).
Lanai, Dec. 18, 1869. [Translator, Kepā Maly]

[This notice was repeated on January 8, 1870 (Nupepa Kuokoa, page 3), with Solomona K. Lonoaimoku appointed as the overseer.]

December 31, 1872
P. Nahaolelua to Minister of the Interior
Government Lands of Kaunolu, Kalulu and Kamoku
…Receipts from Lands and House lots of the Government Leases:

Dec. 9.	From Ake, Lease of Kamoku on Lanai	$100.00
Dec. 26	From K. Maakuia, Lease of the Government Lands on Lanai	$ 66.50

[Hawaii State Archives, Interior Department Lands]

June 13, 1873. Lahaina, Maui.
P. Nahaolelua; to E.O. Hall
Terms on Lease Rate for Pawili, Kamao, four Kealia, Kaunolu, Kalulu, Kamoku & Paomai
I have better give you a list of all the lands on Lanai: Pawili, Kamao, Kealia [Aupuni], Kaunolu, Kalulu, Kamoku & Paomai. These are all the Government lands, and Gibson has acquired Six Lands, and three lands remain.

But it is all right according to what has been decided by you people. And the proper rent for these six lands, according to my belief, at Two Hundred Dollars per annum, and for the remaining lands for the first lease Two Hundred. That is what I think... P. Nahaolelua. [Hawaii State Archives, Interior Department, Lands]

June 16, 1873
E.O. Hall; to P. Nahaolelua
Kamoku under lease to Ah See, and Terms Granted to W.M. Gibson
...Your letter of the 13th of June, has been received. This is the opinion of the King and the Ministers, regarding lands of Lanai.

The lands of Kaunolu and Kalulu, the residents shall occupy those lands, and that you collect the rent of same, as had been the custom for the past years.

The lands of Kealia [Aupuni], Pawili 2 and Kamao, shall be leased to Gibson at $100.00 a year. How about that?

The land of Kamoku is occupied by a Chinaman, so I hear. How many years was it leased for, and how much a year?

That land of Mahana is a Government lands. Who is occupying it at the present time" It was thought that C. Kanaina had it. It is not so.

As to Paomai, I have already inquired of you in regard to this land. Would you kindly reply...? E.O. Hall. [Hawaii State Archives, Interior Department Book, Volume 12:276]

April 15, 1874 Honolulu.
Walter Murray Gibson; to H.A. Widemann, Minister of the Interior
Application to Lease Government Lands on Lanai (Figure 10)
I desire to lease the following Government lands situated upon the island of Lanai.

The Ahupuaa of Kaunolu
The Ahupuaa of Kalulu
The Ahupuaa of Paomai
The Ahupuaa of Mahana

Also the Ahupuaa of Kamoku, which is now under lease, nearly expired.

I make this application on the ground that it is due as an act of justice on the part of the government, to concede to me a lease of these lands. I received a promise from the Interior Department that I should have a lease of these lands, and in consequence of this assurance, addressed to me Feb. 20th, 1863 by S. Spencer, Chief Clerk, by authority of the then Minister, H. R.H. Prince L. Kamehameha. I was led to make many improvements, such as opening a road to a landing, making fences, and other works; - all of which proved a loss in consequence of the denial by a succeeding Minister of a lease as promised by his predecessor: and this took place, notwithstanding the solemn assurance from the Department, "that no under advantage will be taken, if you should proceed to enclose and cultivate any portion of the Government land, (of Lanai), or that you will assume any risk by so doing."

It is true, I received a lease from your Excellency's immediate predecessor of a few small government lands, but these are mere unimportant strips, or areas within my own lands, and unavailable to anyone else, and no portion of the lands above mentioned, which were especially promised, and upon which I had made some improvements.

I will pay the rents priced by the Government, semi-annually in advance...
[Hawaii State Archives, Interior Department Lands]

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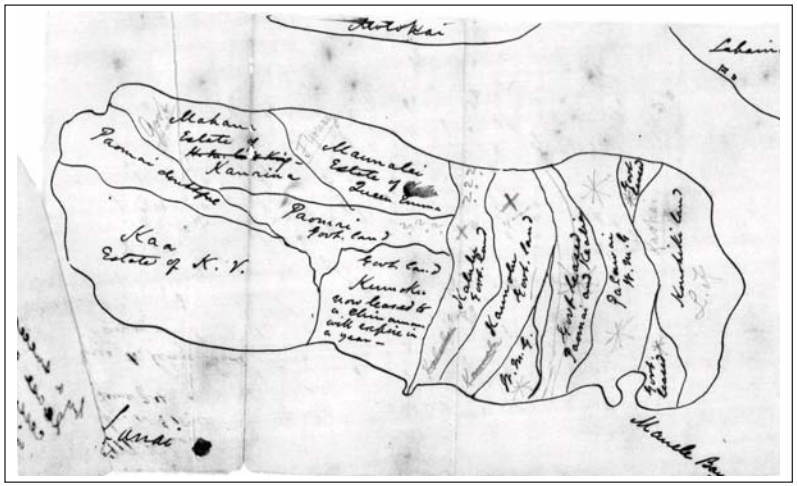

Figure 10. W.M. Gibson's Lānaʻi Sketch Map Depicting Disposition of Lands on Lanai April 15, 1874 (Hawaii State Archives)

June 9, 1874
Interior Department Memo
Concerning Government Lands on Lanai for which W.M. Gibson has Made Application to Lease
The Ahupuaa of Kaunolu
The Ahupuaa of Kalulu
The Ahupuaa of Kamoku
The Ahupuaa of Mahana
The Ahupuaa of Paomai

As the chief portion of natives on Government lands on Lanai, reside on Kaunolu and Kalulu on the northern side of the mountain ridge, therefore Mr. G. proposes to reserve natives, to be rented to them, all of Northern Kaunolu and Kalulu, — the summit of the ridge to be the dividing line between such lands, and the northern portion of these two districts, and he desires to confine his application to lease government lands on Lanai at present to the southern points of Kaunolu and Kalulu, with the sea of Kamoku on expiration of present lease. [Hawaii State Archives, Interior Department Lands]

[The sketch map attached with this letter repeats a similar format as that cited in earlier communications of this series between Gibson and Kingdom Agents.]

January 26, 1875
Ahsee & Akuna; to Walter M. Gibson
Bill of Sale
Conveying sheep pasturing on Ahupuaa of Kamoku
Know all men by these presents that we Ahsee and Akuna both of Kamoku in the Island of Lanai one of the Hawaiian Islands and both Chinamen in consideration of the sum of Eight Hundred Dollars paid to us by Walter M. Gibson of Lanai aforesaid Esquire do hereby bargain, sell, assign, transfer and set over unto the said Walter M. Gibson all those certain sheep numbering about Two Thousand more or less now in our possession or under our control depasturing or grazing upon or about the land known as "The Ahupuaa of Kamoku" on the said Island of Lanai by whatsoever brands or marks the said sheep may be branded, marked, known or designated together with the wool, increase and progeny of such sheep and each and every of them. To have and to hold the same unto the said Walter M. Gibson and his heirs executors administrators and assigns forever absolutely and we do hereby covenant and agree to and with the said Walter M. Gibson and his heirs executors and administrators and assigns that the said Sheep are now of the number of Two Thousand at the least that we have full power and authority to sell and dispose of the same in manner aforesaid, and that the said Sheep are now free and clear of and from all former and other gifts, grants, bargains, mortgages, judgments, executions, back rents, taxes and assessments whatsoever and in order to secure the speedy possession of the said Sheep to the said Walter M. Gibson we do hereby irrevocably nominate, constitute and appoint the said Walter M. Gibson our true and lawful attorney for us and in our names and on our behalf forthwith to enter unto and upon the said lands on into and upon any other lands in the said Island of Lanai whereas the said sheep or any one or more of them may be grazing or depasturing and the same to take possession of and to keep hold and enjoy in manner aforesaid with full power to our said attorney in one or either of our names to take all and every proceeding in any Court in the said Hawaiian Kingdom which he may deem necessary or proper to take for obtaining possession of the said Sheep...

Ahsee
Akuna… [Bureau of Conveyances – Liber 41, pages 194-195]

January 26, 1875
Ahsee; to Walter M. Gibson,
Assignment of Lease
Conveying Government Lease on Ahupuaa of Kamoku
Know all men by these presents that I, Ahsee, of Kamoku in the Island of Lanai, one of the Hawaiian Islands, a Chinaman, for valuable consideration to me paid by Walter M. Gibson of the said Island of Lanai, Esquire; the receipt whereof is by my signature to this deed acknowledged, do hereby grant, bargain, sell, convey, bargain and set over unto the said Walter M. Gibson, a certain Indenture of Lease bearing date on or about the tenth day of March eighteen hundred and sixty five, made by the Minister of the Interior of the Kingdom of the Hawaiian Islands to me and my executors, administrators and assigns of all that certain tract of land on the said Island of Lanai, known as the "Ahupuaa of Kamoku;" and all my estate, right, title, and interest in the said land and in and to the buildings, fences and other erections thereon with the appurtenances thereunto belonging,

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or usually held or enjoyed therewith. To have and to hold the same unto the said Walter M. Gibson, his heirs, executors, administrators and assigns for and during the full end and term and general term mentions or referenced to in the said Indenture of Lease, subject to the lease and the rents, covenants, conditions and provisions in the said lease, mentioned…

Ahsee… [Bureau of Conveyances – Liber 41, pages 195-196]

July 5, 1875
William L. Moehonua, Minister of Interior; to Walter M. Gibson
Lease Covering the Ahupuaa of Kamoku
This Indenture made this Fifth day of July A.D. 1875 between His Excellency W.L. Moehonua His Hawaiian Majesty's Minister of the Interior for and in behalf of the Hawaiian Government of the first part, and Walter Murray Gibson of the Island of Lanai, one of the Hawaiian Islands of the second part.

Witnesseth: That for and in consideration of the rents, covenants and agreements herein after reserved and contained, on the part and behalf of the said party of the second part his executors, administrators and assigns, to be paid, kept and performed, he the said party of the first part, hath demised and leased and by these presents doth demise and lease unto the said party of the second part... All that certain tract on parcel of land, situated on the Island of Lanai aforesaid, known as the Ahupuaa of Kamoku (See Hawaiian Govt. Lease No 116) To have and to hold, all and singular, the said premises above mentioned and described, with the appurtenances thereunto belonging unto the said party of the second part... for and during the term of Twenty (20) years, to commence from the First day of December A.D. 1874, the said party of the second part... yielding and paying therefore, from and immediately after the commencement of the said term, and during the continuance thereof unto the said party of the first part, and his successors in office the annual rent of One Hundred ($100) Dollars over and above all taxes charges and assessments to be levied or imposed thereon by Legislative Authority, the first payment of the said rent to be made on the first day of December next ensuing, the date last aforesaid.

And the said party of the second part for himself and his executors... does consent, grant, promise and agree, to and with the said party of the first part and his successors in office by these presents in manner following, that is to say: that he the said party of the second part... shall and will well and truly pay, or cause to be paid unto the said party of the first part, or his successors in office, the said annual rent above reserved, according to the true intent and meaning of these presents, clear of and over and above all taxes, impositions, charges and assessments whatsoever. And also that he the said party of the second part... shall and will from time to time during the term of this present demise, bear, pay and discharge all taxes, charges, impositions and assessments, ordinary and extraordinary, which may hereafter at any time during the continuance of the said term, be laid, imposed, assessed or charged on the said demised premises, or any part thereof or upon any improvements made or to be made thereon, or which may be imposed or charged on the said party of the first part or his successors in office for or in respect of the said premises, or any part thereof,

and shall and will indemnify the said party of the first part and his successors in office of, from and against all damages, costs and charges which he may at any time sustain or be put to, by reason of any neglect in the due and punctual discharge and payment of the said taxes impositions charges and assessments.

And also that he the said party of the second part... shall and will bear, pay and discharge at his own cost and expense, all costs and charges for fencing the whole or any part or parcel of the above demised premises, if such fencing should be so required by any law now in force or that may be hereafter erected by Legislative authority and shall and will indemnify the said party of the first part and his successors in office of, from and against all damages, costs, expenses and charges which he may at any time sustain by reason of any neglect or refusal of the party of the second part... in the performance of the premises and agreements last aforesaid.

And also, that he the said party of the second part... shall not, nor will at any time during the term hereby granted, do or commit, or permit or suffice to be done any willful or voluntary waste, spoil or destruction in and upon the above demised premises, or any part thereof, or cut down or permit to be cut down any trees now growing or being, or which shall hereinafter grow or be in and upon the above demised premises, or any part thereof; and will at the end or other sooner determination of the said term hereby granted, peaceably and quietly lease and yield up unto the said party of the first part or his successors in office all and singular the premises hereby demised with all erections buildings and improvements of whatever name or nature, now on, or which may be hereafter put, set up, erected and placed upon the same in as good order and condition in all respects, (reasonable use, wear and tear excepted) as the same as present or may hereafter be put by the said party of the second part...

And also that he the said party of the second part... shall not, nor will at any time during the continuance of the said term, demise, let set or assign over the said premises, or any part thereof, to any person or persons whomsoever, for any term or time whatsoever, without the license and consent of the said party of the first part, or his successors in office, in writing, under his or their hands first hand and obtained for such purpose. And the said party of the first part, for himself and his successors in office doth covenant and grant to and with the said party of the second part... that the said party of the second part... shall or may at all times during the said term hereby granted, by and under the annual rent, covenants, conditions and agreements herein contained, peaceably and quietly have, hold, occupy, possess and enjoy, all and singular, the said premises hereby demised and every part and parcel thereof, with the appurtenances (except as before excepted) without the least, trouble, hindrance, molestation, interruption and denial of the said party of the first part, or his successors in office, or of any person or persons whatsoever lawfully claiming or to claim the same, or any part or parcel thereof.

Provided always and these presents are upon this condition nevertheless, and it is the true interest and meaning of these presents, that if it should happen that the annual rent herein before reserved shall be behind and unpaid in part or in all, by the space of Thirty days after the same ought to be paid according to the

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reservation aforesaid, and no sufficient distress can or may be found in and upon the premises, whereby the same, with the arrears thereof (if any shall happen to be) can be made, or if the said party of the second part... shall demise, set, let or assign the said premises, or any part thereof to any person or persons for any term or time whatsoever, without the license or consent of the said party of the first part, or his successors in office, first had and obtained in writing or if the said party of the second part... shall not well and truly observe, keep and perform all and singular, the covenants and agreements on his part to be observed kept and performed according to the true intent and meaning of these presents, that then and from thenceforth in any of the said cases, it shall and may be lawful to and for the said party of the first part and his successors in office, without warrant or other legal process, into and upon the said hereby demised premises or any part thereof in the name of the whole, to re-enter and the same to have again re possess and enjoy, as in his first and former estate and right this indenture, or anything herein before contained to the contrary thereof in any wise notwithstanding. In witness, whereof. The parties to these presents have hereunto set their hands and seals, the day and year first above written.

William L. Moehonua
Walter M. Gibson… [Bureau of Conveyances – Liber 43, pages 255-258]

September 15, 1876
M. Kealakaa, S.B. Lono and S.W. Mahelona; to
W.L. Moehonua, Minister of the Interior
Lease of Kamoku to Aki (Chinese) ends in 1878
...This letter informs you that the Association that applied for the lease of the Ahupuaa of Kamoku on Lanai, is ready. Because the lease of the Chinaman will end this year. And the sum of One Hundred and twenty dollars is here, as directed by you, and we remit the same. So, you may draw up the lease right away for the term of twenty years, according to your earlier reply... M. Kealakaa, et al. [Hawaii State Archives, Interior Department, Lands]

January 1, 1878
John O. Dominis, Agent, Crown Lands Estate;
to Walter M. Gibson
Lease (Terms of 20 years)
Covering the Ahupuaa of Kamoku and Kalulu
This Indenture made this first day of January A.D. 1878 between the Commissioners of Crown lands of the first part and Walter M. Gibson of Lanai of the second part. Witnesseth that for and in consideration of the rents covenants and agreements here in after reserved and contained on the part and behalf of the said party of the second part his executors administrators and assigns to be paid kept and performed they, the said parties of the first part by virtue of the authority in them vested, by the act entitled "An Act to relieve the Royal Domain from encumbrances and to render the same inalienable" approved January 3rd 1865, have demised and leased and by these presents do demise and lease unto the said party the second part his executors administrators and assigns all those tracts and parcels of land situated in Island of Lanai one of the Hawaiian Islands known and described as follows to wit.

The Ahupuaas of Kamoku and Kalulu except the timber trees and all young trees fit and proper to be raised and preserved for timber trees now growing or being or which shall hereafter grow or be in and upon the above demised premises or any part thereof together with free liberty of ingress and regress to and for the said parties of the first part and their successors in office. To have and to hold all and singular the said premises above mentioned and described with the appurtenances except as before excepted unto the said party of the second part his executors administrators and assigns for and during the term of Twenty years to commence from the first day of January A.D. 1878 the said party of the second part his executors administrators and assigns yielding and paying therefore from and immediately after the commencement of the said term and during the continuance thereof unto the said parties of the first part and their successors in office the yearly rent of four hundred dollars payable semiannually, over and above all taxes, charges and assessments to be levied or imposed thereon by legislative authority, the first payment of the said rent to be made on the first day of July next ensuing the date last aforesaid. And the said party of the second part, for himself and his executors administrators and assigns do consent, grant, promise, and agree to and with the said parties of the first part and their successors in office by these presents in manner following that is to say, that he the said party of the second part his executors administrators and assigns, shall and will well and truly pay, or cause to be paid, unto the said parties of the first part or their successors in office, the said yearly rent above reserved according to the true intent and meaning of these presents, clear of and over and above all taxes impositions charges and assessments whatsoever. And also that he the said party of the second part his executors administrators and assigns shall and will from time to time, during the term of this present demise, bear pay and discharge all taxes charges impositions and assessments, ordinary and extraordinary, which may here after at any time during the continuance of the said term be laid imposed assessed or charged on the said demised premises or any part thereof, or upon any improvements made or to be made thereon, or which may be imposed or charged on the said parties of the first part, or their successors in office for or in respect of the said premises, or any part thereof, and shall and will indemnify the said parties of the first part and their successors in office of from and against all damages costs and charges which they may at any time sustain or be put to, by reason of any neglect in the due and punctual discharge and payment of the said taxes impositions, charges and assessments whatsoever.

And also that he the said party of the second part, his executors administrators and assigns shall and will bear pay and discharge, at his or their own cost and expense all costs and charges for fencing the whole or any part or parcel of the above demised premises if such fencing should be so required by any law now in force, or that may be hereafter enacted by Legislative Authority and shall and will indemnify the said parties of the first part and their successors in office of from and against all damages costs expenses and charges which they may at any time sustain by reason of any neglect or refusal of the party of the second part his executors administrators and assigns in the performance of the premises and agreements last aforesaid. And also that he the said party of the second part his executors administrators and assigns shall not nor will at any time during the term hereby granted do or commit or permit or suffer to be done any willful or

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voluntary waste spoil or destruction in and upon the above demised premises or any part thereof or cut down or permit to be cut down any trees now growing or being or which shall hereafter grow or be in and upon the above demised premises or any part thereof, and will at the end or other sooner determination of the said term hereby granted peaceably and quietly leave and yield up unto the said parties of the first part or their successors in office, all and singular the premises hereby demised with all erections buildings and improvement of whatever name or nature now on or which may be hereafter put, set up, erected and placed upon the same, in as good order and condition in all respects, reasonable use wear and tear excepted as the same are at present or may hereafter be put by the said party of the second part his executors administrators and assigns and also that he the said party of the second part his executors or administrators or any of them shall not nor will at any time during the continuance of the said term demise let set or assign over the said premises or any part thereof to any person or persons whomsoever, for any term or time whatsoever without the license and consent of the said parties of the first part or their successors in office in writing under their hands first had and obtained for such purpose.

And the said parties of the first part for themselves and their successors in office, do covenant and grant to and with the said party of the second part his executors administrators and assigns by these presents that the said party of the second part his executors administrators and assigns, shall or may at all times during the said term hereby granted, by and under the yearly rent covenants conditions and agreements herein contained peaceably and quietly have hold occupy possess and enjoy all and singular the said premises hereby demised and every part and parcel thereof with the appurtenances except as before excepted without the let, trouble, hindrance, molestation, interruption and denial of the said parties of the first part or their successors in office or of any person or persons whatsoever, lawfully claiming or to claim the same or any part or parcel thereof. Provided always and these presents are upon this condition nevertheless, and it is the true intent and meaning of these presents that if it shall happen that the yearly rent hereinbefore reserved shall be behind and unpaid in part or in all by the space of thirty days after the same ought to be paid according to the reservation aforesaid and no sufficient distress can or may be found in and upon the premises, whereby the same, with the arrears thereof if any shall happen to be can be made, or if the said party of the second part his executors or administrators shall demise set let or assign the said premises or any part thereof to any person or persons, for any term or time whatsoever without the license or consent of the said parties of the first part, or their successors in office, first had and obtained in writing, or if the said party of the second part his executors administrators and assigns shall not well and truly observe keep and perform all and singular, the covenants and agreements on his or their parts to be observed kept and performed according to the true intent and meaning of these presents, that then and from thence forth, in any of the said cases it shall and may be lawful to and for the said parties of the first part and their successors in office without warrant or other legal process into and upon the said hereby demised premises or any part thereof in the name of the whole, to reenter, and the same to have again, repossess and enjoy as in their first and former estate and rights, this indenture

or anything hereinbefore contained to the contrary thereof in any wise notwithstanding.

In witness, whereof the parties to these presents have hereunto set their hands and seals the day and year first above written.

John O. Dominis
Walter M. Gibson… [Bureau of Conveyances – Liber 52, pages 475-478]

January 1, 1878
Lease of Kamoku and Kalulu (with Paomai)[8]
Commissioners of Crown Lands to Walter M. Gibson
Term of Twenty Years at $400 Per Annum
This Indenture, made this first day of January, A.D. 1878 between the Commissioners of Crown Lands of the first part, and Walter M. Gibson of Lanai of the second part. Witnesseth, that for and in consideration of the rents, covenants and agreements herein after reserved and contained, on the part and behalf of the said party of the second part, his executors, administrators and assigns, to be paid, kept and performed, they, the said parties of the first part, by virtue of the authority in them vested, by the Act entitled "An Act to relieve the Royal Domain from Encumbrances, and to render the same inalienable," approved January 3rd, 1865, have demised and leased… unto the said party of the second part… All those tracts and parcels of land, situated in Island of Lanai, one of the Hawaiian Islands, known and described as follows, to wit:

The Ahupuaas of Kamoku, and Kalulu, except the timber trees, and all young trees fit and proper to be raised and reserved for timber trees, now growing or being, or which shall hereafter grow, or be in and upon the above demised premises… together with free liberty of ingress and regress, to and for the said parties of the first part, and their successors in office… for and during the term of Twenty years, to commence form the first day of January A.D. 1878… paying there for, from and immediately after the commencement of the said term… unto the said parties of the first part… the yearly rent of Four Hundred dollars, payable semi-annually, over and above all taxes…

Jno O. Dominis,
Commissioner and Land Agent. [Hawaii State Archives, Series 369, Vol. 1 Crown Land Leases]

June 13, 1879
M. Makalua, Guardian of Kaaukai an underage minor; to Walter M. Gibson
Lease Covering Lands in Kamoku Under Helu 10630 to Pali,
Helu 6833 to Kaaiai; and portions of Kalulu and Kaunolu
By this, let it be known, that this is a land lease agreement, executed on the 13th day of June, 1879, between M. Makalua of Lahaina, Island of Maui, the Guardian

[8] Receipt of rents paid on Kamoku and Kalulu are recorded from May 19, 1882 through July 2, 1888. Beginning August 1, 1882, receipts of payment for lease of Crown Land of Paomai are recorded through August 21, 1888.

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of the land and personal property of Kaaukai Opio, an underage child; and Walter M. Gibson of Lahaina, Island of Maui, of the second part. Be it known that the party of the first part, M. Makalua, aforesaid, has granted to the party of the second part, Walter M. Gibson, a lease for those parcels of land described below, thus:

A parcel of land known under the name of Pali, being Royal Patent 4800, Kuleana Helu 10630, containing 112.1 Roods, 23 Perches, at Kamoku, Lanai. Parcels of land known by the name of Kaaiai, Royal Patent No. 6159, Kuleana No. 6833, containing 5 acres, 3 rods, 2 perches. (Parcel 3) 7 acres, 3 rods, 10 perches. (Parcel 4) 6 acres, 3 rods, and 10 perches; the combined total of these three parcels is 20 acres, 1 rod and 30 perches more or less. Also there at Kalulu, Lanai, the land that Pali purchased from the Government at Kaunolu, Lanai, No. 3032; these parcels of land aforementioned are leased to Walter M. Gibson, and his heirs and assigns for twelve years, beginning from this day forward; the rental rate for the period of the lease being Six Hundred Dollars; that is Fifty Dollars per year… [Bureau of Conveyances – Liber 59 pages 499-500]

1884
The Hawaiian Directory
Lanai Government Appointments and Stock Ranch
Gibson, Henry. Overseer Lanai Ranch. Res. Island of Lanai.
Kahoohalahala, Solomona. District Judge, Island of Lanai. Res. Same.
Kealakaa. Policeman. Island of Lanai. [page 392]

Lanai Stock Ranch, His Excellency W.M. Gibson proprietor, Henry Gibson overseer, includes the entire Island of Lanai, 100,000 acres, one-third of which is held in fee simple and the remaining two-thirds on long lease from the Government and Crown, 40,000 head of sheep, 3,000 angora goats, 600 horses and 200 head of cattle.

Morehead, Jesse, postmaster, Island of Lanai. [page 393]

September 9, 1887
Robert Hoapili Baker, Governor of Maui, to
L.A. Thurston, Minister of the Interior
Reports that Natives of Lanai Have Inquired
About Status of Government Lands
Love to you – I have been instructed by the natives of Lanai, to inquire of your Excellency about some Government lands on the island of Lanai, being there: Kalulu, Kaunolu, Kamao, Mahana, Kamoku and Paomai. Because, these lands above named are still under the authority of W.M. Gibson. And now the natives living on these lands are in trouble. Therefore, I ask your Excellency, how is it, are these lands above set forth really under lease to W.M. Gibson, or not:

They wish to know the truth about this from your honor, they trusting that their rights and benefits are with you.

Will your Excellency please answer this question…? [Hawaii State Archives, Interior Department Lands]

Walter Murray Gibson died in 1888, and his estate was inherited by his daughter, Talula, who was married Fredrick Hayselden. Prior to Gibson's death, Hayselden had been appointed administrator of the assets.

December 16, 1890 (page 7)
Hawaiian Gazette
Lanai Crown Lands
AN ACT. To Declare Certain Lands to be Part of the Crown Lands and Royal Domain.

Whereas, certain unassigned lands have hitherto and at all-time heretofore been held to be part of the Crown Lands and Royal Domain and as such were and are now in the possession of the Crown Land Commissioners; therefore,

Be it Enacted by the King and Legislature of the Hawaiian Kingdom:

Section 1. The Ahupuaa known under the following names and situated as hereinafter set forth, that is to say…:

5. Kamoku, in the Island of Lanai;
6. Paoma-i in the island of Lanai…

Are hereby declared to be a part of the Crown Lands and Royal Domain of the Hawaiian Kingdom and as such subject to the provision of the Act entitled "An Act to relieve the Royal Domain from encumbrances, and to render the same inalienable," approved the 3rd day of January, A.D. 1865; and the possession of said lands is hereby confirmed in accordance with the provisions of Sections 3 and 4 and 6 of said Act to the Crown Land Commissioners and successors in office…

Approved this 14th day of November, A.D. 1890.

KALAKAUA REX.

December 19, 1890
Commissioners of Crown Lands; to F.H. Hayselden
Lease No. 167
25 Year Lease on the Ahupuaa of Kamoku and Paomai, Lanai
Carried over from Leasehold Agreements dated Sept. 30, 1874 & Jan. 1, 1878.
This Indenture, Made this Nineteenth day of December, A.D. 1890. Between The Commissioners of Crown Lands of the first part, and F.H. Hayselden of the second part. Witnesseth, that for and in consideration of the rental, covenants and agreements hereinafter reserved and contained on the part and behalf of the said party of the second part, his executors, administrators and assigns, to be paid, kept and performed, they, the said parties of the first part, by virtue of the authority in them vested, by the act entitled, "An Act to Relieve the Royal Domain from Encumbrances, and to render the same Inalienable," approved January 3d, 1865, have demised and leased , and by these presents do demise and lease, unto the said party of the second part, his executors, administrators and assigns,

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all of those tracts and parcels of lands situate on the Island of Lanai, Hawaiian Islands, known as the Ahupuaas of Kamoku and Paomai, by their ancient boundaries or as may be hereafter determined by legal authority; excepting therefrom all of the Kuleanas and rights of native tenants; and especially canceling and annulling those certain indentures of Lease of the same premises made between the Commissioners of Crown Lands and W.M. Gibson dated January 1st, 1878 and August 1st, 1874 [see leasehold records in dates referenced above] except the timber trees, and all young trees fit and proper to be raised and preserved for timber trees now growing or being or which shall hereafter grow, or be in and upon the above demised premises, or any part there; together with free liberty of ingress, egress, and regress to and for the said parties of the first part, and their successors in office.

To Have and to Hold, all and singular, the said premises above mentioned...unto the said party of the second part... for and during the term of Twenty-five (25) Years, to commence from the First day of January A.D. 1891... Paying therefore the yearly rental of Five Hundred ($500.00) Dollars, over and above all taxes, charges and assessments to be levied or imposed upon the said premises by Legislative Authority... [Bureau of Conveyances – Liber 128, pages 276-279]

The Estate of Walter Murray Gibson

Frederick and Talula Gibson Hayselden engaged in several business ventures in an effort to build economic opportunities on Lānaʻi. The estate included both property owned in fee and leasehold interests, of which Kamoku and the Kōʻele ranch headquarters were a part. Among the business ventures was the Lanai Ranch Company, Maunalei Sugar Company, the Palawai Development Company, and production of vegetable crops for the Honolulu market from Kōʻele. All of which went bankrupt between 1900 and 1901.

June 23, 1896 (page 4)
The Hawaiian Gazette
Lanai - Notice of Sale Under Decree of Foreclosure and Sale.
In the Circuit Court of the First Judicial Circuit, Republic of Hawaii. In equity – S.M. Damon, J.H. Fisher and H.E. Waity. Copartners under the firm name of Bishop and Company, plaintiffs, vs. Cecil Brown, Administrator with the will annexed of the Estate Walter Murray Gibson, and Trustee of the Estate of said Walter Murray Gibson, deceased, under said will, and Jane Walker, Executrix under the will of J.B. Walker, deceased. and H.E McIntyre, in his own behalf, and as Executor under the will of said J.S. Walker; Talula Lucy Hayselden, and Frederick H. Hayselden, her husband; Wilder's Steamship Company, a corporation; Walter H. Hayselden, Lucy T. Hayselden, Frederick H. Hayselden, Junior, a minor; David Kalakaua Hayselden, a minor; and Rachel K. Hayselden, a minor, defendants. — Foreclosure Proceedings.

Pursuant to decree of foreclosure and sale, made in the above entitled suit and Court, May 11th. A. D. 1896, notice is hereby given that the property hereunder described will be sold at public auction at the Court House (Aliiolani Hale) in Honolulu, Island of Oahu, Hawaiian Islands, on Wednesday, August 26th, at 12 o'clock Noon, said sale to be confirmed by said Circuit Court.

List of The Property.
…(3) Also: All of the property on the Island of Lanai forming part of the Lanai Ranch, so-called, belonging to the Estate of W.M. Gibson, and consisting of the following, property, to-wit :

Lands In Fee Simple.
…All of those tracts of land described in Royal Patent 3029, containing an area of 236.68 acres, and all the title conveyed by deed of Keliihue and others to W.M. Gibson, dated August 20, 1876, of record in Liber 46, folio 330; and in deed of Kealakaa to W.M. Gibson, dated December 7, 1877, of record in Liber 51, folio 389, and in deed from Kealakaa to W.M. Gibson, dated August 23, 1876 of record in Liber 46, folio 329.

Sixth.—All those parcels of land conveyed to said W.M. Gibson by deed of Uilama Paahao [L.C. Aw. 8556] and another, dated November 27, 1886, recorded in Liber 116. folio 33, and described in Land Commission Award 8556, Royal Patent 5137, containing 39 acres more or less…

Leaseholds.
First.—Lease No. 167 from the Hawaiian Government of Paomai containing 9078 acres, and of Kamoku, containing 8291 acres, expiring January 1, 1916, annual rental $500, payable semi-annually in advance…

Fifth.—All other leaseholds on the Island of Lanai, held by W.M. Gibson on the 31st day of August, 1887, so far as the same may be assigned without incurring any forfeiture.

Personal Property. As follows:

The sheep, cattle and horses belonging to the said estate of W.M. Gibson on said Island of Lanai, numbering 24,000 sheep, more or less, 550 cattle, more or less, 200 horses, more or less; also all wool presses, wagons, carts, harnesses, tools, implements, chattels, household furniture and effects belonging to the estate of W.M. Gibson, situate on said Island of Lanai…

Maps of the property to be sold can be seen at the Hawaiian Safe Deposit and Investment Company, 408 Fort street, Honolulu, and for further information apply to the undersigned.

P.C. JONES, Receiver.
Office with the Hawaiian Safe Deposit and Investment Company.
Dated Honolulu. May 25, 1896.

July 8, 1900 (page 1)
The Honolulu Republican
Vegetables Grown at Koele
Fine Vegetables. They Were Grown by Mr. Hazelton [Hayselden] of Lanai without Irrigation.

What can be grown on the island in the way of vegetables was strikingly

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illustrated yesterday by a consignment sent to D.G. Camarinos by T.H. Haselton [F.H. Hayselden] of Koele, Lanai. In the consignment were cauliflowers, white turnips, potatoes, carrots, lima and small white beans, peas, okra, onions and summer squash. The vegetables excelled any seen by the writer in California. They were raised without irrigation.

1901 (page 18)
Report of the Governor of Hawaii
List of lands known as "Government Lands," now classed as public lands (Lanai)

Lanai	
Kamoku	Acres 8,300.00
Lease	No. 167
Annual Rental	$500.00
Expires	Jan. 1916
	— Acres taken for settlement purposes
Estimated Value	$8,000.00
Remarks	Grazing land…

November 29, 1901 (page 2)
Hawaiian Gazette
Public Land Assets Leased on Lanai
Holders of Public Land
Holdings and Free Properties Listed.

…Island of Lanai. Kamoku—8,300 acres…

Lanai lands are almost wholly grazing lands, with little or no water.

July 31, 1902 (page 6)
Evening Bulletin
Commissioner's Notice of Sale of Valuable Ranch Property and Stock on the Island of Lanai
Notice Is Hereby Given that the undersigned, a Commissioner duly appointed by the Hon. George D. Gear, Second Judge of the Circuit Court of the First Circuit, in that certain cause pending in equity In the Circuit Court of the First Circuit, between G. Kunst, Plaintiff, and W.H. Pain and Elise S.V. Neumann, and others, interveners, defendants, to sell and make arrangements for and conduct the sale of certain property hereinafter set forth, and described and being an undivided two-thirds (2/3) share and Interest of the said W.H. Pain and Elise S.V. Neumann, in and to the property, real and personal, formerly belonging to the estate of Walter M. Gibson, deceased, and situate and being on the Island of Lanai, Territory of Hawaii, will sell at Public Auction at the front door of the Court House, Aliiolani Hale, so called, in the City of Honolulu, Island of Oahu, and Territory of Hawaii aforesaid on Saturday, the sixteenth (16th) day, through Will E. Fisher, Auctioneer, the undivided two-thirds (2/3) share or interest of said W.H. Pain and Elise S.V. Neumann, said defendants, of, in and to the following property, real and personal, all formerly belonging to the estate of Walter M. Gibson, deceased…:

Leases.
First.—Lease No. 167 from the Hawaiian Government of Paomai containing 9078 acres, and of Kamoku, containing 8291 acres, expiring January 1, 1916, annual rental $500, payable semi-annually in advance…

Personal Property. As follows:
The sheep, cattle and horses belonging to the said estate of W.M. Gibson on said Island of Lanai, numbering 24,000 sheep, more or less, 550 cattle, more or less, 200 horses, more or less; also all wool presses, wagons, carts, harnesses, tools, implements, chattels, household furniture and effects belonging to the estate of W.M. Gibson, situate on said Island of Lanai.

Maps of the property to be sold can be seen at the Hawaiian Safe Deposit and Investment Company, 408 Fort street, Honolulu, and for further information apply to the undersigned.

P.C. JONES, Receiver.
Office with the Hawaiian Safe Deposit and Investment Company.
Dated Honolulu. May 25, 1896.

Terms. Cash In U. S. Gold Coin, and Dated, Honolulu, June 28, 1902. A. Barnes, Commissioner.

1902
The Rainfall of the Hawaiian Islands
Hawaii (Ter.) Weather Bureau
Rainfall at Koele (1892-1898)

Elevation, 1600 feet. Exposure, Central.

Months	1892	1893	1894	1895	1896	1897	1898	Normal.
Jan	6.60	1.35	2.21	6.86	3.53	1.89	0.23	3.74
Feb	2.30	12.81	6.88	2.56	2.43	0.83	7.92	4.62
Mar	1.50	1.79	1.09	1.41	4.73	1.75	9.22	2.04
April	4.62	1.57	3.07	0.56	0.76	0.93	0.39	1.92
May	6.72	0.86	0.81	1.59	0.00	3.01	0.32	2.16
June	2.76	1.46	1.34	0.65	[0.00]	2.56	5.02	1.46
July	0.12	0.45	1.17	2.79	3.07	0.71	…	1.38
Aug	1.02	3.22	2.25	6.10	3.45	1.49	…	2.92
Sept	[1.25]	0.18	1.89	3.39	1.63	5.87	…	2.37
Oct	3.79	2.09	1.28	1.88	0.61	4.96	…	2.43
Nov	2.41	6.85	3.58	1.93	3.14	2.81	…	3.45
Dec	3.51	2.58	3.57	5.85	6.85	3.65	…	4.34
Annual	[36.60]	35.21	29.14	35.57	30.11	30.46	…	32.85

Annual average is made up from annual total. [University of Hawaiʻi, Hamilton Library Collection]

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August 12, 1902 (page 1)
Hawaiian Gazette
An Island For Sale
What Lanai Has to Offer the Buyer
Notice of Gibsons' Lanai Estate Sale
(Estate Operations Based out of Koele Ranch Headquarters)
When on Saturday there is offer for sale in from of Aliiolani Hale the portions of the island of Lanai which constituted the undivided two-thirds interest of the estate of the late Walter Murray Gibson, there will be before investors one of the most alluring propositions, perhaps, ever offered in Hawaii, one which may be counted from every side a favorable purchase.

In no more than two or three instances in the Territory have the men of means taken to building up for themselves estates, where there is offered every opportunity for rest and recreation, as well as pursuits which furnish mental invigoration. In this respect the Parker estate and Moanalua holdings are almost apart, and yet in the entire Pacific ocean there is not such an opportunity for a fine homestead as is offered in Lanai. While the lands comprise but a modest part of the whole island the other holdings are such that a majority of the acreage may be consolidated without much difficulty. Once this is done there would be in the possession of the fortunate holder something which would appeal to both the material and artistic side of the lord of the Demesne.

Rolling lands, without sheer cliffs and great gulches, comprise the ranges, on which now feed 18,000 sheep, 250 head of cattle and almost the same number of horses. This is capable of such increase in the opinion of experts that within five years there would be a return of not less than $100,000 a year from the stock alone. There is no range in the entire Territory so well grassed for there is scarcely a single plant of lantana on the island. Water in plenty can be had and the absence of neighbors with brands, which makes it impossible that there may be any mixing or maverick appeals forcibly to the cattle grazer, while wild dogs being unknown there is no loss from four footed thieves.

So much for the business end of the investment. The pleasurable side of the ownership of such an estate is a thing of even greater prominence. At an elevation of 1800 feet is the ranch house, looking to the sea, where the cool breezes fan the tired one and the mosquito has never penetrated. Surrounding it is a grove of trees and there is quite a variety of fruit on the island—oranges, lemons, limes, figs, papayas, mangoes and peaches, while berries and small fruits would undoubtedly thrive—and furnish delights for the eye and palate.

Over the hills, too, roams herds of wild goats and numbers of wild boars and in the underbrush nest quail and pheasants, all possible there because the gopher and mongoose has not yet made his appearance and by care may be kept away for all time. Hunting is there, true pleasure, for the hills are never precipitous, the runs are well known and riding is more easy than on any other ranch in the islands.

While the present business portion of the proposition rests on the presence of herds, there is on the windward side of the island no lack of vegetable growth and should the price of sugar warrant a good plant could be created. There grows wild, a species of sisal which furnishes a fiber for which a substantial offer has been made by eastern cordage manufactures. Then too around each cabin door grows sugar cane, without irrigation, which rivals some of the best product of Maui.

Taken altogether there is in Lanai great possibilities, something on every side, which promises much for the investor, be he grazer, rancher, farmer, hunter or the man in search of a home away from turmoil and trouble of everyday life.

Charles Gay Purchases the Gibson Lānaʻi Estate And Enters into an Agreement to Purchase Government And Crown Lands on Lānaʻi

Charles Gay and family began their purchase of Lānaʻi from the Gibson-Hayselden heirs in 1902, taking up residency in the large house at Kōʻele (Figure 11), as well as one of the former Maunalei Sugar Company homes at Keōmoku Village. Gay recognized that if they were to make a go of their business efforts that they would need to hold title to the majority of land on the island. The initial acquisition began in August 1902, with subsequent conveyances recorded between 1903 and 1927. The transfer of the lease of Kamoku and the Kōʻele parcel were made a part of the original conveyance. Gay's purchase of Lānaʻi was supported through a mortgage of the holdings, which kept him in debt to a number of parties. Walter Giffard, a friend of Gay's, was also an officer of W.G. Irwin and Company, that already owned the ahupuaʻa of Kaʻā and Kaʻōhai, and held mortgages under the Hayseldens, was quietly enlisted by Gay to assist with brokering a land exchange to bring the public lands on Lānaʻi under Gay's ownership.

Figure 11. Charles and Louisa Kala Gay (seated) with children, Venus, Louise, Ralph and Violet, Agnes Judd, standing, at the Kōʻele guest cottage (Courtesy of the Charles Gay Family, 1908)

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Of major significance to the modern history and land tenure on Lānaʻi is that in 1903, the Commissioner of Public Lands in the Territory agreed to allow the Gibson heirs to transfer their interest in public lands (including Kamoku Ahupuaʻa) to Charles Gay. Then in 1906, Territorial Governor, George R. Carter, and James Pratt, Commissioner of Public Lands, engaged in a land exchange deal with Charles Gay. This facilitated the transfer of all Crown and Government (Ceded) Lands on Lānaʻi, including the ahupuaʻa of Kamoku, to the private ownership of Charles Gay. In return, Gay would transfer valuable pieces of land in the Honolulu District to the Territory. Giffard and Irwin and Company agreed to facilitate the exchange, and also fronted mortgages for Gay.

Representative Lincoln McCandless sued Carter, Pratt and Gay on the premise that the public lands on Lānaʻi should be granted to homesteaders. The suit went to public hearings and court, and important documentation regarding environmental conditions, failed business efforts, residency of the native population on Lānaʻi, and assessments of the land on Lānaʻi were recorded. The case went all the way to the Supreme Court of the United States, which found in favor of the Territory and Charles Gay. This decisions resulted in the extinguishing of all the Ceded Land claims (eight of the thirteen ahupuaʻa) on Lānaʻi.

Kamoku and the other public lands on Lānaʻi were recorded under the name of Walter Giffard (Land Patent Grant No. 5011), and transferred to Charles Gay on February 10, 1907 for $1.00. On April 10, 1907, Gay mortgaged the entire Lānaʻi holding to W.G. Irwin Company, combining all outstanding debts to the amount of $337,279.98. The debt owed by Gay to Irwin, along with the degraded landscape and inability of the ranch operations to support economic gains placed the family under extreme financial distress. On September 7, 1909, with foreclosure looming, Gay deeded all of the Lānaʻi holdings and assets to W.G. Irwin and Company (Bureau of Conveyances, Liber 316, pages 474-479).

The narratives below provide readers some background on the land exchange, with emphasis on the ahupuaʻa of Kamoku and activities in the Kōʻele vicinity.

August 19, 1902 (page 7)
Hawaiian Gazette
Lanai Is Now Gay's
Kauai Stockman Purchases the Island
Lanai will become one of the beauty spots of Hawaii, if the plans toward which Charles Gay is bending his energies are carried through, and the first step was taken Saturday when the two-thirds interest in the former Gibson holding were purchased by him at auction for $108,000. This does not mean the entire cost according to the current rumor, and there can be had no confirmation as the parties are not talking of such things now, for it is understood that Mr. Gay will make good the losses of Mrs. Paul Neumann, her mortgage for $11,400 being the third, and the sale being at a figure which would shut her out of benefits.

Despite the fact that there are two outside interests yet held in the island, that in time all will come under the hand of Gay is believed, and this will to the Kauai man the most complete ranch in the entire group, for it has on it neither lantana nor mongoose. In spite of the few bids there was really much interest in the sale, and there were about thirty bankers, attorneys and real estate men at the court house door when at noon Saturday auctioneer Will Fisher cried the sale of the estate.

Cecil Brown opened the bidding with $75,000, and he was promptly raised to $100,000 by Charles Gay. There was a brief wait and discussion and S.M. Damon then announced his bid for $107,500. Mr. Gay went him $500 better, and after long discussion by the auctioneer upon the merits of the proposition with an urgent plea for a higher bid, the proper was sold to Mr. Gay for $108,000.

The purchaser of the island, Charles Gay, is a member of the firm of Gay & Robinson, who are among the biggest ranchmen in the Territory; but he made the purchase for himself alone. It is his intention to convert the property into a gigantic ranch, for which purpose it is well adapted. The land purchased by Gay covers over 12,000 acres in fee simple, and the leases cover nearly 25,000 acres in addition, and which do not expire for five years. The land is sufficient, according to report, to accommodate in pasturage 5000 head of cattle and about 30,000 head of sheep. There are at present upon the land about 18,000 head of sheep and about 249 cattle and nearly as many horses.

The amount obtained from the sale of the property will not pay the amount of the judgment rendered by Judge Gear in the case of G. Kuhnst vs. W. H. Pain and Mrs. Eliza A. Neumann. Judgment was for over $101,000, but including $11,400 claimed by Mrs. Neumann for money loaned to Paul Neumann and which was to be paid after the other claims of Kuhnst for $71,913 and Bishop & Co. for $29,773 had been settled. The attorneys' fees, auctioneer and commissioner's expenses, allowed by Judge Gear, will probably more than eat up any little balance without considering the claim of Mrs. Neumann. George Davis has already been allowed an attorney's fee of $1500 in this case.

Mr. Gay was seen yesterday at the Hawaiian in regard to his purchase. He was rather reticent relative to his future plans, but stated the he would establish a big ranch for both cattle and sheep upon Lanai. The purchase was made by him as an individual and not for the firm with which he is connected. In response to questions he said that he has no intention, for the present at least, of establishing a steamer service between Lanai and Honolulu, for the transportation of his stock, nor will he build a refrigerator plant there. However, he intends to import fine breeds of cattle from abroad and also from his ranch on Niihau.

Negotiations are also pending by Mr. Gay for the purchase from W.G. Irwin of his third interest in the Gibson estate, and also for the Hayselden interests on the island.

August 28, 1902
Est. of W.M. Gibson et als. by Commissioner; to Charles Gay
Commissioner's Deed – Conveying lands (fee-simple & Leasehold), livestock, and personal property on the island of Lanai
This Indenture made this 28th day of August A.D. 1902, between Albert Barnes, Commissioner, of Honolulu, Island of Oahu, Territory of Hawaii of the first part, and Charles Gay of Makaweli, Island of Kauai, in said Territory, of the second part.

Whereas, in proceedings duly taken in the Circuit Court of the First Judicial Circuit of said Territory at Chambers in Equity… it was ordered adjudged and

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decreed by an order made on the 24th day of June A.D. 1902 by the Honorable George D. Gear, Second Judge of the said Circuit Court that the said Decree of Foreclosure and Sale be enforced by a sale of all and singular the real and personal property and assets of the estate of the said Walter Murray Gibson, deceased, hereinafter set forth, and that the same be sold at public auction in said Honolulu at the front door of the Court House (Aliiolani Hale), by and under the direction of the said Albert Barnes, who was by said Decree appointed a Commissioner to sell the said property and was duly authorized to give public notice of, make arrangements for and conduct the sale as set forth in said order.

And whereas… the said premises and property hereinafter described were sold to the said Charles Gay for the sum of One Hundred and Eight Thousand Dollars ($108,000.00) that being the highest sum bid for the same… Now this indenture Witnesseth: That the said Albert Barnes, Commissioner as aforesaid… doth hereby give, grant, bargain, sell, assign, set over and convey unto the said Charles Gay an undivided two-thirds (2/3) of all that real and personal property situated on the Island of Lanai in said Territory mentioned…

Schedule "A"
Fee Simple.
…All of those tracts of land situated on the Island of Lanai, described in Royal Patent 3029, containing an area of 236.68 acres, and all the title conveyed by deed of Keliihue et al to Walter Murray Gibson dated August 20th, 1876 of record in liber 46, fol. 330 and in deed of Kealakaa to Walter Murray Gibson dated December 7th, 1877 of record in liber 51, fol. 389 and in deed from Kealakua to Walter Murray Gibson dated August 23rd, 1876 of record in liber 46, fol. 329…

All that land described in Land Commission Award 3417 B conveyed by Kamaika and others to W.M. Gibson by deed dated March 7, 1865, recorded in liber 19, fol. 274….

Leases
First. All leases of land on the Island of Lanai held by said Walter Murray Gibson on August 31st, 1887, so far as he had the right to assign the same without incurring any forfeiture.

Second. All the property conveyed by Frederick H. Hayselden on January 24th A.D. 1891, to wit. That certain Indenture of Lease of the Ahupuaa of Kamoku and Paomai, on the Island of Lanai made by and between the Commissioners of Crown Lands of the first part and said Frederick H. Hayselden, of the second part, dated December 19th, 1890, of record in liber 128, fols. 276-279…

Personal Property
First. All those flocks of sheep on the 20th day of June A.D. 1902 or thereabouts of mixed ages and sexes, on said day depasturing, running or being upon the said Island of Lanai and also all that herd of cattle and all horses on said 20th day of June, 1902, also depasturing and running upon the said Island of Lanai on said day, all formerly belonging to the Estate of Walter M. Gibson, deceased, together with all the natural increase of the said flocks and herds, and also all the wool, then upon the said sheep and which has since that time been produced

and shorn from said sheep, and their said increase save and except such sheep, cattle and wool as have been sold with the consent of the said plaintiff.

Second. All wool presses, wagons, carts, harnesses, tools implements, chattels and effects belonging to said Walter Murray Gibson on said August 31st, 1887, situated on the Island of Lanai, at said time and now in and upon said lands or any of them.

The flocks of sheep and their increase are now estimated at about 18,000 head.

The herd of cattle with their increase are now estimated at about 240 head.

The herd of horses with their increase are now estimated at about 210 head.

In witness whereof the said Albert Barnes has hereunto set his hand and seal the day and year first above written... [Bureau of Conveyances – Liber 242, pages 91-95]

January 12, 1904 (page 5)
Hawaiian Gazette
Goats Stand in Way of Development of Lanai
Secretary Atkinson Talks of the Visit of Inspection to Two Small Islands–Kahoolawe is Wind Swept–Gigantic Scheme
Lanai will never be of much value until the goats which are now overrunning the government lands are exterminated, is the opinion of the officials who returned from the island yesterday on the Iroquois, after a most thorough inspection. The members of the party spent three days on the island of Lanai, practically all of the time in the saddle. They also visited the island of Kahoolawe which is also said to be in need of considerable attention on the part of the government. Chas. Gay was reported by the members of the party to be spending thousands of dollars in the improvement of Lanai, mainly in bringing water to his ranch from Maunalei gulch.

"We left Honolulu on the Iroquois at six o'clock Wednesday morning," said Secretary A.L.C. Atkinson who went with the party as the representative of Governor Carter. "We landed at Manele on Lanai at two o'clock in the afternoon, where we were met by Chas. Gay with horses. The same afternoon, we rode up to Koele, Mr. Gay's place inspecting the land on the way up. The next day we rode to the furthest northwest point of the island, and then along the coast to Awalua harbor. We came back to Koele by way of Paomai. On Friday we rode to Puukukai where we could look down Maunalei gulch, which is practically the only source of water supply for the entire island. We came back from there at noon on Friday and then rode over the forest belt looking also at Palawai. We then went to Gibson's and back to Manele where we again took the Iroquois….

Water On Lanai
"The great trouble on Lanai," continued Secretary Atkinson, "is the lack of water. Mr. Gay is making tremendous efforts to get water to his land. He owns in fee simple the great portion of the island and has leases on the balance. The land of Kahului [Kaunolu] will revert to the government in 1907. There are three beautiful

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pasture tracts in the old basins of the craters. Mr. Gay is trying to bring the water over from Maunalei a distance of forty [incorrect figure] miles. It has to be pumped two thousand feet, and a six hundred foot pump is being installed. It will be run by windmill and gasoline power. Mr. Gay is spending a lot of money in improvements on the island. There was some talk some time ago of starting a sisal plantation on the island, but I doubt if it will ever be made as success. There is not enough water on Lanai to grow sisal.

"I also looked into the question of forester reservation. The forest belt is on government land, and also on a tract owned by W.G. Irwin. Of course no plan for forest preservation has been made as yet, but it will be a difficult problem. The great difficulty is going to be with the goats. There are from15,000 to 25,000 goats on the island now, and they are thickest in the forest belt. It is hardly worthwhile to attempt to do anything until the upper levels are fenced in and the goats driven off. There are tremendous cliffs in that portion of the island and it is going to be an expensive proposition to exterminate the goats. Mr. Gay is willing to furnish anyone with a horse and a gun who wants to help get rid of them…"

July 18, 1906
James Pratt, Commissioner of Public Lands; to
George R. Carter, Governor of the Territory of Hawaii
Exploring the Transfer of Government Lands on Lanai to Private Holdings
...I beg leave to acknowledge receipt of your letter of 13th inst., re Public Lands of Lanai, and in reply to same will state that about three weeks ago Mr. Giffard again brought up the subject of exchange of Bishop Wharf and approaches for balance of Lanai lands. He stated that the smallest sum he could purchase the wharf for was $125,000.00 and this amount was about $15,000.00 in excess of the value of Lanai lands, in opinion of Mr. Irwin. I answered that I had heard that the Bishop slips could not be dredged to a proper depth, sufficient to accommodate vessels now calling here, without endangering the wharves, and that such being the case, I did not believe that the Government desired to acquire ownership of said premises. He then stated that Mr. Holloway had assured him that he desired to obtain ownership to the wharves, not to berth the large steamers but for use of sailing vessels and the smaller steamers.

Mr. Giffard also stated that the unsettled condition of affairs and uncertainty regarding the future, was causing a great depreciation in the value of the Lanai premises in that the present lessee has not the means to maintain a good condition of affairs, let alone providing any improvements or safe-guards against natural losses in value. He also suggested that we could perhaps add a bonus to the Lanai lands that would raise all to an equal value to Bishop Wharves or that some other property might be found which would be acceptable to the Government in exchange for Lanai lands.

I agreed to look about and to consider the matter. I must say, however, that the longer I consider the more I am inclined to stick to a valuation of $130,000.00 for Lanai.

Mr. Irwins' valuation of his interests have not influenced me at all.

His first agreement with Gay, (I understand) was to sell his 29,000 acres for $80,000.00, then it is stated that he cut the figure to $60,000.00 and now Mr. Giffard says $40,000.00.

Mr. Irwins' lands have no running water thereon, and that portion (about 500 acres) that might be classed as agricultural land (if watered) has no water shed from which the storm waters could be conserved.

The Government property covers very nearly the entire water shed and reservoir sites, and also practically all the natural running water. With a proper conservation of water, plus the natural precipitation (at an average elevation of 1600 feet above sea) our land, to the extent of about 7500 acres could be cultivated in pines or other products that do not require so great a quantity of water as sugar cane must have.

Prior to the occupancy of Lanai by the present lessee, rain water conserved in cisterns [at Koele] satisfied all demands for ordinary purposes about the ranch houses of W.M. Gibson, F.H. Hayselden and other residents of the upper plateau.

This would indicate that there is a considerable and regular rainfall on these lands, and, as 30 to 50 inches annually is fully sufficient for many crops, I believe that I make no mistake in classing about 7500 acres of our land in neighborhood of "Koele" as "Agricultural," leaving about 39000 acres "Pastoral," and 1000 acres "Forest and Water reserve."

Mr. Irwins' land (without water) is and always will be classed as Pastoral land unless handled with the Government lands.

The principal owners on Lanai at this time are as follows:

Hawaii Terr.	about	47,298.14
W.G. Irwin et als	about	29,103.10
Chas Gay	about	11,055.24
Kuleanas & Grants	about	1,497.53
Total		88,954.01

I believe that the comparative real values are about as follows:

Government	130,000.00
Irwin	40,000.00
Gay	20,000.00
Kuleanas & Grants	12,000.00

In case it is believed that there is a good opportunity at this time to dispose of these lands at a fair valuation, I would respectfully suggest that the best way to settle their value would be to send a couple of good men over there and let them appraise the premises... [Hawaii State Archives, DLNR 2-21]

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September 29, 1906
Paul Jarrett; to
Jas. W. Pratt, Commissioner of Public Lands
Assessment of Kamoku Ahupuaʻa

...In compliance with your request for appraisement of the Public Lands on the Island of Lanai for Pasturage purposes, I beg to submit the following report which I have carefully prepared according to my personal observation of these lands and investigation as to their climatic conditions; and from data obtained at your office regarding names, acreage and location of these lands on the map of Lanai island:

KAMOKU

	8291 A.
Less	222 A. Kul.
	8069 A. Net.

This land is situated entirely on the leeward side of the island, and taken as a whole for pasturage purposes I would consider same very fair land, the extreme upper section of about 830 acres being cut up into ravines and healthy Kukui, Guava, and Ohia trees growing with good Manienie and Pilipiliula grasses. The middle section, comprising about 3128 acres in one table land, is covered with Pilipiliula grass, with some Manienie grass and Lililehua pest weed. The makai section, comprising about 4111 acres, is rocky for about ¾ of a mile from the beach with a few passable ravines and gulches, but Pili grass is growing thereon; the balance of this makai section is covered with scattered growths of Pilipiliula and Manienie grasses. The present Ranch Houses and Homestead of Mrs. Charles Gay are located on this land in the upper section. This entire area of about 8069 acres net, taken as a whole, I value at $2.- per acre = $16138.--…

The above valuations are also based upon what I consider the lands are able to produce and support in the nature of livestock from year to year. During my experience of three years as a representative of ranching interests in checking the grading of beef and mutton by the Metropolitan Meat Co., Ltd., at its slaughter house in Honolulu, the prices realized for beef cattle and mutton supplied from the island of Lanai have been low in comparison to those of other suppliers, the quality and grade being inferior with but a few exceptions.

I am advised and informed that the period of my visit to Lanai was one during very dry weather, and I have given same proper consideration and allowances in my estimates... [Hawaii State Archives, DLNR 2-21]

September 31, 1906
J.T. Brown, Surveyor; to James W. Pratt
Evaluation of Public Lands on Lanai

I submit herewith my estimate of value of Public Lands on the island of Lanai after a through [sic] personal inspection of the same. In making this estimate I have classified these lands as follows:-

CLASS 1: Central flat land on leeward side of mountain ridge, fair pasturage lands susceptible of improvement, and having possibly some value for agricultural purposes. There is a variation in quality of Class 1 land which I have further indicated as 1 A & 1 B.

CLASS 2. Smooth pasture land not dissimilar to Class 1 in many respects, but with inferior pasturage and more exposed to wind.

CLASS 3. Mostly inferior pasture land, very windy and exposed, but including also certain sheltered small valleys and foot hills, having fair pasturage quality.

CLASS 4. Rough rocky lands along leeward coast with considerable waste, but on the whole good "Pili Grass" pasturage.

CLASS 5. Lands on windward side steep, rough and rocky, cut by deep dry gulches, with a large proportion of absolute waste land. In this Class is also included the mountain top and deep ravines having value only as reservation for forest.

In the following estimates I have deducted the known area of Grants and Kuleanas, these being located for the most part on the best land of the central flat.

Estimate of Areas, Public Lands on Lanai (Less Grants and Kuleanas)

	1	2	3	4	5
Paawili Windward					1924
Kaunolu Windward)					4121
Kalulu Windward)					
Mahana Windward			2700		5265
Paomai Windward & Central		1260			7818
Kamoku Leeward		3128	830	4111	
Kaunolu Leeward)	2070		550	3700	1748
Kalulu Leeward)	1000				
	950				
Kealia [Aupuni] Leeward	470		180	2639	270
Kamao	194			1260	1260
	4684	4388	4260	11710	22406

Estimated Values

CLASS 1-A	3214 Acres	@	$7.50	$24,105.00
CLASS 1-B	1470 Acres	@	$5.00	8,820.00
CLASS 2	4388 Acres	@	$4.00	17,552.00
CLASS 3	4260 Acres	@	$2.00	8,520.00
CLASS 4	11710 Acres	@	$1.50	17,565.00
CLASS 5	22406 Acres	@	.50	11,203.00
TOTAL	47448 Acres			$87,765.00

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In connection with these estimates I would further Note:

That Lanai is normally a dry island: A large part of the island and of the public land is exposed to the sweep and drying effect of the trade winds, while missing however most of the rain that these winds carry along the shores of Molokai and of Maui, or down the channel between Molokai and Lanai. This condition I have observed through a long series of years, and farther evidence in this regard is shown by the desert barren condition of the windward side of Lanai, in contrast with the windward sides of all the other islands, excepting only Kahoolawe. Nor is this barren condition of recent date, it being not materially different from the condition observed on my first visit to Lanai over thirty years ago.

On the leeward side of the main ridge the condition is very different, extensive flats and easy slopes are the rule, the soil has every appearance of very good quality, and the country is in general well grassed, the flats being covered in part with Manienie a fair pasturage grass, and partly with "Pilipili ula" a grass of little pasturage value. The rocky slopes toward the leeward coast are fairly well grassed with "Pili" a good pasturage grass.

Here again the lack of a sufficient and reliable water supply is a serious drawback to the lands, either for pasturage or agricultural purposes. Only in the winter season with the South or the cold north winds is there likely to be any considerable, or general rain fall.

It is probable that various short crops such as hay or grain could be grown over considerable areas by the help of these winter rains, but whether such crops could be raised at a profit in view of the distance from market, expense of cartage shipment etc. and in competition with the imported products is very problematical.

My judgment would be that such cultivation would hardly be profitable, except as an adjunct to a general grazing enterprise on the island.

Sisal would undoubtedly grow over large areas on Lanai although the country appears dry even for Sisal except on the somewhat sheltered flats of No. 1 land. The question of water for mill purposes and manufacture would again arise. The only running water of Lanai is in the deep Maunalei gulch from which it must be raised nearly a thousand feet to reach the flats above. The Stream is not a large one: From what I have seen of this Stream and from all I can learn an estimate of 60,000 or 70,000 gallons flow for 24 hours (as the normal flow) appears to me a very liberal one, and in very dry times this flow would be much reduced. Assuming however that this amount could be obtained steadily, and raised to the necessary elevation it would on the best information that I can obtain, suffice for manufacturing needs of a plantation of 3 or 4 thousand acres. Some of this water would of course be required for house hold as well as direct milling purposes.

If the water however is thus used it would mean a practical deprivation of the large remaining area of public land of a possible water supply even for stock purposes, with a consequent depreciation in value. I do not consider the present water supply sufficient for the fullest use of the lands even as a stock ranch:

Sheep can subsist and thrive with a very limited amount of moisture but cattle and horses require a plentiful supply particularly in a naturally dry country.

To furnish a supply on Lanai would require steady high lift pumping, an expensive system of many miles of pipe, troughs etc. and in my opinion a frequent shortage of supply would ensue if any considerable herd of cattle was to be supplied.

In dealing with this matter I have not considered the question of any claim to the Maunalei water counter to that of the Government, but have assumed that such water could and would be used on any of the Public lands in question, and have estimated their value under that assumption.

Under all of the conditions I believe the estimate of value made herein is a fair one erring, if at all, on the side of over, rather than of under valuation. I have also considered in this matter such sales of land of similar nature as seemed to me fairly indicative of the value of such lands in public estimation, or as would be likely to be obtained at a public sale, having in mind not a prospective or possible value under other conditions, but an actual value so far as I can estimate the same, based on the present conditions of these lands as they are today on the island of Lanai... [Hawaii State Archives, DLNR 2-21]

November 27, 1906 (page 3)
Evening Bulletin
Favor Exchange Of Lanai Lands–Important Meeting Held In Gov. Carter's Office. Island Should be Owned by One Man. Large Attendance and Interesting Discussion of Important Land Question Yesterday
(Governor Carter and Charles Gay Look at Transfer of Government Lands on Lanai to Private Holdings)
Yesterday afternoon the meeting to discuss the exchange of the Government lands on Lanai took place in the office of Governor Carter. Among those present were: Governor Carter, Francis Gay, W.O. Smith, H.E. Cooper, W.M. Gifford, R.C.A. Peterson, Treasurer Campbell, A. Lewis, Jr., B.F. Dillingham, Eben Low, Samuel Parker, John Kidwell, L.L. McCandless, Senator Knudsen, F.S. Dodge, George Markham and L.G. Kellogg.

The meeting was almost unanimous in favor of the exchange, the only man who took the opposing view with any strength being Senator L.L. McCandless, who stated that he was against the matter from principle and not because he was familiar with the Island of Lanai. Governor Carter opened the meeting with a few remarks. He said:

"While I believe the policy of the administration should be the dividing of land into small holdings and not the concentration of holdings, Lanai is in a different situation. The lease of this land on Lanai, part of which might be used for sisal, is limited to five years. No one has been found who is willing to invest money in this project, in which the plants take nearly the five years to produce the first crop."

"Something should be done on this island where the conditions are peculiar both as regards water and character of the lands which are owned by the

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government."

"Land Commissioner Pratt will give you an idea of the conditions on Lanai as he has found them."

Mr. Pratt said: "There is only one source of water on the Island, in Maunalei gulch, and this does not at present extend below the government lands. Another peculiar condition is that the government land is cut up in various ways by the land under private ownership."

"The best of the land owned by the government is in a large crater where shafts were sunk some years ago at a large expense in trying to obtain water."

"The weather Bureau reports show that in nine years the average rainfall per year was 32.51. It seems to be heaviest in December and January. It seems to be smallest in September. The soil is a sandy loam all the way through where the boring were made, and refuses to hold the water which simply drains through."

"The industry has been stock raising sheep and cattle. Sugar cane has been tried unsuccessfully and I believe a few limes have also been planted."

"This is not a new matter and I have looked it through carefully and have been thought by some to have placed too high a value on it. For this reason I asked J.F. Brown, Capt. Kidwell and Paul Jarrett to visit the land in questions and on receiving their reports I made mine to the Governor, that it would be best to exchange the lands. The total figures were as follows: Jarrett $68,305.50; Brown, $87,765, and Kidwell, $107,059. I therefore advised that the lands be exchanged at the value given by Captain Kidwell."

Governor Carter had a number of letters from different sources which were written after the meeting had been called.

One communication was a petition from a number of citizens of Hilo protesting against the exchange of the lands in question.

Mr. Pratt stated that the Government was now receiving $1700 per year in rental. He stated that the better lands were crown lands and the leases would not expire for ten years.

Mr. Barker stated that if the people on Lanai were paying their taxes he did not think the land should be exchanged. He also criticized the Government for reading the communications and attempted to interrupt almost every speaker.

Prof. Hosmer said: "I can corroborate what Mr. Pratt has said and also can state in regard to forestry that without the extermination of the goats on the island great damage will result and has been done by them for some time past."

"I firmly believe that unless these goats are exterminated the forest on the top of the island will be completely destroyed. I am in favor of the exchange because under one ownership I believe something can be done to save the Island."

[Gay, along with his sons and guests engaged in an active hunting program in an effort to control the wild goats (Figure 12), and over the years, thousands of goats were taken off the land. It wasn't until the early 1930s that the goat population was temporarily exterminated. However, by the late 1940s goats were once again allowed on the island, resulting in further devastation of the landscape.]

Figure 12. Lawrence & Roland Gay Hunting Goats Along Windward Valley (ca. 1918) Photo Courtesy of the Charles Gay family

Mr. Gay, who lives on the island and is regarded as the probable owner if the exchange is made, said: "There are about 100 natives all told, on the island. They have homes on the beach and live from fishing and I employ them when I need labor. They buy all their poi, etc., from Lahaina. Last year I was forced to supply them with water as the little streams from which they were accustomed to get water, had dried up."

"I believe that grazing is the only practical use to which the island may be put. I have tried to grow vegetables at my ranch but have failed on account of the lack of water, having only enough to supply my stock. Last year I lost over 10,000 sheep for lack of water. This year I have not had as many and so have not lost as many."

"Some time ago I offered $100,000 for the island. At that time there were several people who were willing to go into the matter with me. I cannot get this support now."

"I believe it is impossible to do anything under a lease as one does not have any stability and cannot lay plans ahead."

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Senator McCandless said: “I am opposed to the exchange on principle. I do not believe that any one man should own 49,000 acres of land. I think that if one man could make a success of the island, individuals, who had the land in lots of 300 or 450 acres, could make still more of a success.”

“I believe that the Legislature should appropriate money to make this land populous and that the Island should not be depopulated as I think it would be if owned by one man.”

W.O. Smith said: “I have frequently had occasion to go to Lanai and while I am very much in favor of homesteading, it seems to me that Lanai cannot be used for any such purpose.”

“The island has become more and more barren. I think it would be better to use the land for grazing and I do not believe that this could be done on a small scale. Even on a large scale I do not believe that the Island can be made productive.”

“It has proved impossible to develop a water supply and I do not believe that there would be any use in the Legislature appropriating money for this purpose. I believe that if Mr. McCandless would look over the land he would see that there was no chance of using it for homesteads.”

“I should say that $75,000 would be a high price for the land and am surprised at the estimate made by Mr. Kidwell.”

Eben Low said: “I believe that in case of an exchange there should be some provision made that improvements should be carried out. I believe that we should hold on to the land till the leases have all expired as something might turn up which might be advantageous.”

“I think that the lands as they come due should be released till that time at auction with a low upset price and the conditions that some improvements should be made.”

Judge H.W. Cooper: “I went to Lanai week before last and examined the property. Mr. Gay whom I represent, has spent some $70,000 on the island and does not feel that he can go ahead unless he has some security. I may say that I have secured an option for the Spreckles and Irwin lands, 29,000 acres at about $1.25 per acre, a much lower figure than the Government wishes for its land.”

“I believe that the land on Lanai should be saved and that the best way that this can be done is by its being in the hands of one man. On account of the land of rainfall a small stock ranch would never be successful.”

“Without the fencing into 5,000 or 10,000 acre paddocks, I do not believe that even the ranch system would be a success. There is no value whatever in the land on the windward side of the island. There is practically no chance for storage reservoirs on account of the porous character of the soil. The lack of water is the entire problem on Lanai.”

Mr. Kidwell said: “I am in favor of dividing up land into small farms wherever it is possible. But I do not think that it is possible in this case.”

“In regard to the values which I placed on the lands, which Mr. Smith states is too high; I did this on account of the understanding that all the water in Maunalei gulch belonged to the Government and without this water the other land is useless.”

“I think that on the plateau sisal would grow and I think that in time apples would grow. But there would be no market for them as they could not be shipped fresh, and to can them a large amount of fresh water would be needed. This cannot be obtained.”

“If exchanged as proposed a great deal more money would have to be spent for machinery and other improvements.”

Sam Parker said: “I went with Mr. Irwin to Lanai once, when he and I owned one-third of the land together, with the intention of freezing the other people out of the entire island. We found we could not get the land and gave the project up. I thought then as I do now that unless we could get the entire island we could do nothing with it.”

“That was about 23 years ago and the conditions were better then, than they are now, that is, there was more water. I do not believe that in small lots the land can be worth anything.”

Senator Knudsen said: “I went there and found a windswept, barren spot with no water. I agree with the others who have spoken here, without water you can have no homesteads.”

Mr. Dodge of Bishop & Co. stated that he did not believe that at any expense a water supply could be developed.

L.G. Kellogg said: “I visited the island last year and I reported that if the whole island was acquired I could get some money to put into the land. If the entire island could not be obtained I would not give ten cents for the rest of it.”

Mr. Markham stated that he believed that action on the matter should be delayed.

February 1, 1907
Land Patent Grant No. 5011
To Walter M. Giffard
On Land Exchange Covering Lanai[9]
Area of 48,640.06 Acres.
On Land Exchange ——— By this Patent the Governor of the Territory of Hawaii, in Conformity with the Laws of the United States of America and of the Territory

[9] The original Surveys of the Boundary Commission (A.D. 1877 & 1891), and boundaries and features recorded on Kingdom Register Map No. 1394 were the source of the survey notes in Land Patent Grant No. 5011; and subsequently the source of the Ahupuaʻa surveys recorded in Land Court Application No. 862.

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of Hawaii, makes known to all me that he has this day granted and confirmed unto Walter M. Giffard for the consideration of the transfer to the Territory of Hawaii by the said Walter M. Giffard of certain lands situate in the District of Honolulu, Island of Oahu, Territory of Hawaii as evidenced by that certain Warranty Deed of the said Walter M. Giffard to the Territory of Hawaii of even date herewith and of record in the office of the Registrar of Conveyances at Honolulu, Island and County of Oahu in Liber 291 at page 1 et seq. all of the land situate on the Island of Lanai bounded and described as follows:

…Certificate of Boundary of the land of Kamoku [Crown Land].

Commencing at a pile of stones over a cross cut in a large stone on South side of Kaumalapau Harbor on edge of gulch. The boundary runs:

1. N 86° 27' E true 3254 feet along Kalulu up South edge of gulch to a stone marked with a cross on edge of gulch a little above a branch that comes into the main gulch from the South. Thence:

2. N 88° 46' E true 5225.9 feet along Kalulu, up South edge of gulch to a cross cut in a stone on South edge of same. Thence:

3. N 84° 40' E true 2594 feet along Kalulu to head of gulch. Thence:

4. N 72° 43' E true 2080 feet along Kalulu to a cross cut in a stone amongst a lot of stones at the former site of an old Heiau called "Ili o Lono." Thence:

5. N 46° 19' E true 10144.4 feet along Kalulu up road to a point a little North of a cactus clump marked by two triangular pits.

6. N 65° 44' E true 4939 feet along Kalulu along North edge of crater to a red wood post on the North wall of the crater at a place called Pulehuloa near Keliihananui's house.

7. Thence along Kalulu down across a small ravine (coming in from the North called Keaaku) to Government Road and up the N.W. edge of the Kapano valley, passing near Kawaonahele's house [page 469] to a point on ridge marked with four triangular pits and ditch thus ; said point being a little east of

Puu Nene and bearing N 44° 53' E true 8052 feet from above mentioned red wood post. Thence:

8. N 45° 49' E true 1067.9 feet along Kalulu across valley passing to the S. E. of a water hole called Kaiholena to a red wood post on ridge that comes down from the central mountain range. Thence:

9. N 62° 37' W true 6742.5 feet along Paomai down above mentioned ridge and across valley into a small ridge and down said ridge to a red wood post at end of same.

10. S 84° 37' W true 1316.8 feet along Paomai to a cross cut in a stone.

11. S 74° 8' W true 6258 feet along Paomai passing to the North of a couple of Hala clumps to two Triangular pits at an old house site.

12. S 74° 07' W true 3045 feet along Paomai to a cross cut on a stone at head of gulch.

13. N 86° 6' W true 1368 feet along Paomai down South side of gulch.

14. S 83° 45' W true 1455 feet along Paomai to a cross cut in a stone.

15. S 74° 9' W true 920 feet along Paomai.

16. N 55° 12' W true 898 feet Paomai across gulch to a red wood post a little West of a cactus clump; here ends the Crown land of Paomai. Thence:

17. S 65° 58' W true 1617 feet along Kaa down North side of gulch to a cross on a stone.

18. S 64° 57' W true 2040 feet along Kaa down North side of gulch to a cross on a stone. Thence

19. S 70° 33' W true 3590 feet along Kaa to a point 10 feet East of a large rock with cross cut on it. Thence

20. S 68° 53' W true 1664 feet along Kaa to Sea Shore. Thence

21. S 1° 55' W true 13460 feet along sea shore to point of Commencement.

Area 8291.09 Acres.

April 8, 1907 (page 3)
Evening Bulletin
Investigators Find Lanai Is Not Suitable For Independent Homesteaders Entirely Satisfied With Control By Gay
Lanai is a good island. The soil is fine and it appears capable of profitable development. However, it lacks water badly and to develop the little water to be found on the island a very considerable sum of money will have to be spent. Furthermore, it appears that practically all the water resources are in the hands of Chas. Gay. It would be folly for homesteaders to try to exist on the Government lands on the island, and it would be a shameful act for the Government to encourage them to go there. The natives of Lanai are satisfied with Gay's possession. They look upon him as a father, and as a matter of fact depend greatly on him in times of need.

The above is a general statement of the opinions formed by the members of the Lanai Committee of the House and those with it who visited the island last Saturday and Sunday, and the result of the investigation is sure to be a unanimous report in favor of his purchase being approved of.

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Start Made Friday
The party left in the Claudine last Friday at 5 p.m. It included the following Representatives Kaleiopu, Rawlins, Akau, Nakaleka, Silva, Alawa and Moanauli, comprising the Lanai Committee; Representatives Castro, Nailima and Pali; Judge A.A. Wilder, J.H. Boyd, E.H. Boyd, R.A. Churton, Prince Kalanianaole, F.J. Testa, W.T. Rawlins, Jared Smith, W. Weinrock, Jr., F.E. Harvey, R.A. Matheson and H.W. Kinney [Figure 13].

…They were taken to Manele, one of Lanai's two principal landing-places, arriving there at about 3 a.m. Gay was on hand with horses. He had made excellent arrangements for the entertainment of the big crowd, and his splendid hospitality will leave a long remembrance. After about one and one-half hours the party started up to Koele, in about the center of the island, where Gay's ranch house is located, which was made by the light of the breaking dawn. After a general wash-up and breakfast the party was in the saddle again and started out to see various localities. Gay acted as guide, taking the Representatives wherever they wanted to go. He answered their questions and gave them all the information they wanted, but did not in any way try to help his case or act in the manner of a man with a brief. His manner could not rail to make the impression of a man who felt that he was right, that the deal was right, and that the more light was shed on the whole matter the better. Valuable information was also given by F.E. Harvey of the Survey Department, whose intimate knowledge of the lands and boundaries were of great use.

Figure 13. The Last Thatched House on Lānaʻi (1907). This traditional style thatched house at Pāwili (Royal Patent Grant No. 2791), was once the home of Kahikanaka with his wife, Hakawai, and their granddaughter, Kaupē Kaopuiki with her husband, Joseph Makahanaloa Charles Gay and Prince Jonah Kuhio Kalanianaole with Members of the ''Lanai Committee'' of the House of Representatives (Bernice Pauahi Bishop Museum, No. CP 102,689)

During the day the party passed over the Palawai basin, went to the Maunalei gulch and from there to Kaa. W.G. Irwin's portion, and some went even further, staying in the saddle until 7 p.m. In the evening a meeting of the Hawaiians was called at Gay's house.

Inhabitants Examined
Kaleiopu opened the meeting by stating to the people that the committee had come to investigate matters pertaining to the Government lands and water rights on the island, as there had been some objection raised to the sale of the Government land to Gay. The committee wanted to find out about these things and also about how Gay was treating the people.

Keliihananui, a 60-year old Hawaiian who was born and had lived on the island all his life, was the first witness.

In Kamoku there had formerly been considerable forest. He was not familiar with the entire island. He knew Kaa, Mahana, Maunalei and other places. Maunalei was cultivated by the Hawaiians in former days, but the increase of the goats had destroyed their industry. The goats had been there when he was born and had been increasing ever since. He had not been in the Maunalei gulch since the taro industry was abandoned, years ago. The taro patches had used the Maunalei water. Each patch had a right to a certain amount of it. He did not know whether the source there of was on private or public lands. There had been no constantly running streams within the memory of the witness. There were some other gulches in which there were streams during the rainy seasons. He could not say whether the rainfall had increased or decreased during his lifetime. Formerly sweet potatoes were raised on the island, in the Palawai basin, as well as corn and watermelons. It was used only for home consumption and depended solely on rain water. Wells had been sunk but only brackish water had been obtained. People living inland depended on rain and in dry spells they had to get water from makai.

The witness said he owned three kuleanas on the higher lands. Gay had not tried to get them and had not threatened him. Gay treated the people well; he gave them food when they were in need. He had never heard of anyone being ordered off the island by Gay. He gave poi, beef and biscuits to the Hawaiians as well as employment.

The Government lands were very good, but they had to depend on rain water and during dry weather the crop would dry up. That was the experience of the Lanai people. When there was rain they could cultivate their lands; when the dry spell came the crops dried out and they had to get food from Lahaina…

Nothing Would Grow
Namilimili, a 56-year old Hawaiian, who had been born on Lanai, but had visited Honolulu and Hawaii, was called next. He said he knew the Maunalei boundaries, but when he was asked whether the spring was on Government or private land, he said he did not know. The people of Lanai got along well with Gay. He never tried to force any one of them to leave their lands. He assisted them in times of need and was sort of a father to the lot of them.

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The witness said he could take up a homestead, if the Government lands were cut up as such, if he had sufficient money, but this he had not.

“What would you grow on it?” asked Silva.

“Nothing would grow on it,” answered the witness. “The drouths [droughts] dry up the crops.”

“Well, but you have to cultivate a certain portion of homestead lands,” said Nakaleka.

“Then Lanai is not suitable for homesteads,” said the old man decisively.

Irrigation Impossible
Kauila, a young Hawaiian, was well acquainted with Maunalei. Gay’s pump did not take all the water, but that which was left did not reach the shore, but only flowed a short distance. Even after heavy rains no surface water collected, but disappeared in the ground. Kauila added that the old taro patches of Maunalei had been filled with stones which fell down in them from the mountain sides, where the goats had loosened them or because the dying out of the vegetation had ceased to give them holding ground. Nearly all the food used on Lanai was imported from Lahaina. Sweet potatoes was the only crop that could be raised on Lanai. The cattle on the entire eastern half of the island got water from the pipe line constructed by Gay. The water of Maunalei was far from sufficient to irrigate the basin of Palawai. It would be impossible to homestead it…

Actually Blowing Away
The facts which the committee gathered from actual observation were briefly as follows: The land of Lanai shows almost all over excellent soil, although at many places it is very rocky. Forest is found only on the top of the ridge, the rest of the island being either covered with a very stunted growth of Celucas and grasses of various kinds or being absolutely barren. Wind raises great havoc with large portions of the island, shifting and piling up the soil in the way sand is swept about on the beach. In these places it is practically impossible for vegetation to survive. What grass has been planted stands out in tufts and furrows, the soil having been blown away from all around the tufts which were planted. It is literally true that in these parts the island is blowing away. This is illustrated by enormous boulders which are often seen there standing a foot or two above the general level, supported only by a small “neck” of dirt. The rest of the soil all about them has been blown away and the stone remains in its old position while its surroundings grow lower and lower. Later on the “neck” is eaten away and the stone falls down…

Gay Is the Man
The only conclusion which can be drawn from these facts is that Gay with his private holdings has absolute control of the situation on Lanai, having in his possession the key to it, namely: the water. Furthermore, even if this were not so, the island would not be capable of homestead development. It seems quite evident when one sees Lanai and the conditions prevailing there, that only a man

with brains and capital could be successful in developing. Chas. Gay is such a man, and he appears to be more suited than anyone else to cope with the situation since he is thoroughly acquainted with the island and has won the confidence and love of the natives. That he is a true friend of the Hawaiians is shown not only by their testimony but also by the fact that not a single alien is in his employ…

Committee’s Opinion
The members of the committee were of one mind in expressing themselves thoroughly satisfied that Lanai would be of no value whatever as a place for small farmers. They felt assured that its control by Gay was an excellent thing. In this connection, Silva said that he felt sure that the committee would recommend the confirmation of the sale, although it might at the same time criticize the Governor’s methods employed in closing the deal. Kaleiopu said that it would be a crime for the government to attempt to induce small farmers to waste time and money by taking up the government land on Lanai. [Hawaii State Archives – Series M-219]

Pacific Commercial Advertiser
May 2, 1907
The Report on Lanai. Findings of Committee In Favor of The Big Deal (Transfer of Government Land Assets to Charles Gay Approved)
A long report from the Committee on Public Lands on the Lanai deal was presented. The document was a lengthy one of fifty-eight pages, the reading of which occupied over an hour and the clerk had to call upon the interpreter to help him out.

Gist of the Report
The gist of the report was: “That the areas of first class agricultural and first class patoral [pastoral] land, and second class pastoral and waste lands, which appear in the report of Mr. Jared G. Smith, have been verified by it and found to be a fair estimate of the areas of the classifications of these lands. As to the valuation placed by him, your committee is of the opinion that if there was a guarantee of a water supply for the use of the same it would be a fair figure. But under present conditions, we think it too high. There is only one running stream on the island and the water therefrom is being claimed by the owners of the kuleanas in Maunalei; and under our laws they have vested rights that cannot be divested. If this claim did not exist the cost of pumping and lifting this water to an elevation that would make it possible to be used for irrigation on the lands in the basin, would be prohibitory to the rich and more so to the would-be homesteaders.

“The proposition of conserving water from the rainfall, will necessitate a big outlay of capital which very few people can well afford to undertake, when it is estimated that only 1,400,000 gallons can be collected in this way and the largest areas that can be irrigated by this amount of water is only 1600 acres.

“In making a valuation of these lands the matter of water supply and the cost of conserving the same cuts a very important figure.

“Your committee has endeavored to arrive at a fair valuation as it found the

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condition of things on the island, as follows:

1500 acres 1st class agricultural land at $10 per acre	$15,000
12,000 acres 2nd class agricultural land and 1st class pastoral land at $5 per acre	6,000
50,000 acres 2nd class pastoral land and waste land, at $75 per acre	22,500

(The above figures do not tally and are evidently incorrect.—Ed. Advertiser)…

Jared Smith, who accompanied the committee as an expert, reported as follows:

"The best portion of the agricultural land which I saw was what is called the "bench," a level, treeless plateau extending for a distance of four miles southeast from the ranch headquarters. This bench averages about one mile in width. It is intersected by four deep gulches rising in the main watershed and extending in a southwesterly direction so that the portions of the plateau between the gulches are nearly rectangular in form. This bench contains about 1500 acres of Government land on Kamoku, Kalulu, Kaunolu and Kealiaaupuni. In addition about 350 acres of this bench land are on the privately owned lands of Kealiakapu and Palawai and about 450 acres on Kaohai…"

"Below the bench extending along its border from the ranch house to Paliakoae Gulch and bounded on the southeast by Kamao and thence extending towards the northwest a distance of about 7 miles, is a broad level or slightly rolling plain. I would estimate the well grassed portion of this plain as about 9000 acres, about 7000 acres of which forms a part of the government lands of Kamoku, Kalulu, Kaunolu, Kealiaaupuni and Paawili. The whole of this plain is covered with a close turf which indicates that there is probably 25 inches average rainfall. The character and density of growth also indicate that the rainfall is well distributed throughout the year. There are no evidences of heavy rainfall, that is to say there are no gulches or washes showing erosion as a result of torrential rains. The rainfall in this region is probably derived from valley showers from the clouds that pass over the mountain. About 2000 acres of this plain are second-class agricultural land and capable of utilization for the cultivation of sweet-potatoes, peanuts during the winter months, occasional crops of corn and watermelons. From the grazing standpoint, the carrying capacity of this whole plateau or basin could be doubled or tripled by planting Rhodes grass and Paspalum dilatatum, to replace the pilipiliula and manienie. Sufficient roof water could be obtained for domestic purposes. The soil is red, apparently very deep and free from rocks…"

"A considerable strip of land below the pali which divides the bench from the basin, is suitable for agricultural purposes and would be worth considerable more than the average price of the whole body, and would compensate for areas worth less, in striking an average valuation.

"Second Class Grazing Land. Under this division would fall almost the whole of Kamao and the makai portions of Kealiaapuni, Kaunolu, Kalulu and Kamoku on the kona side of the island…

"Recapitulation. The government land on the island of Lanai consists of about

30,000 acres of second-class pastoral and waste land worth $1 per acre, $30,000; 12,000 acres of first-class grazing and second-class agricultural land worth $15 per acre, $180,000; 1500 acres of first-class agricultural land forth [worth] $35 per acre, $52,500, a total of $262,500…"

"In my opinion the question of the ultimate disposal of the government lands on Lanai has passed out of the hands of the Legislature. The only points now to be judged are questions of law should the case be appealed to the United States Supreme Court, but if upon final review where should be a reversal, and also, if those who control the land policies of Hawaii should be so disposed, I am of the opinion that the agricultural and grazing lands of the island of Lanai could be made to support a population of at least 1600 people.

"Jared G. Smith." [Hawaii State Archives – Series M-219]

Kōʻele and Lānaʻi Ranch Operations Under George Munro and Ernest Vredenburg– The Pineapple Plantation Moves to Lānaʻi

By 1907, Charles Gay had secured fee-simple title to 99-percent of the land on Lānaʻi. However, his ranch was in debt beyond its ability to generate income. Verging on bankruptcy, Gay conveyed all of his Lānaʻi assets to his creditor, W.G. Irwin and Company on September 7, 1909 (Bureau of Conveyances, Liber 316, pages 474-479). Gay remained on Lānaʻi with residences at Kōʻele and Keōmoku, and eventually relocated from Kōʻele to a new home he had built at Lālākoa—in view of Kōʻele—in 1917. In the meantime, Irwin and associates explored opportunities for new business ventures on the island. An article published in the Hawaiian Gazette of November 26, 1909 identified potential business ventures, crops and partners on the island, with specific emphasis on lands which formed Pālāwai Basin. Excerpts from the article, including a note on the need to control goats, shared the following observations:

…it is proposed to kill off the countless goats that infest the island and which have ruined virtually all the vegetation which is not protected, and to plant trees over the island, The Island of Lanai consists of about 100,000 acres, all of which is owned in fee simple by W. G. Irwin, who recently foreclosed the mortgage he held from Charles Gay. Mr. Gay is still living on the island, but has no interest in it. The party which has been on Lanai looking it over with an eye to cotton-growing possibilities will return this morning, and it is expected that the negotiations will come to a head very soon. It is understood that Mr. Irwin is anxious to get rid of the island. Before he left here he stated that he had had two propositions made him for its purchase. The Waterhouse Trust Company is representing W.G. Irwin in the proposed deal. [Hawaiian Gazette, Nov. 26, 1909:7]

On April 28, 1910, Cecil Brown and Robert Shingle, partnered with J.T. McCrosson purchased Irwin's Lānaʻi interests, and formed the Lanai Company, Limited, and Lanai Ranch (Bureau of Conveyances, Liber 333, pages 153-164; and Liber 338, pages 2-6). Through this transaction, all of Lānaʻi, except the land retained by the Gay family and small native holdings, were conveyed to the new partnership.

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The newly formed company based Lānaʻi operations out of Kōʻele and immediately set out to develop water and new agricultural production on island. The Louisiana Planter and Sugar Manufacturer of August 27, 1910 reported:

> The Lanai Company, Ltd. is the name of the new corporations and is capitalized at $400,000. John T. McCrosson, the vice-president of the company, has been to the mainland for the purpose of engaging the services of a beet sugar expert who will inspect the island with a thoroughness and render a report on the adaptability of the island to sugar beet growing. There is little doubt that this inspection will result in a favorable report, for the investigations that have already been made and the result of the rather extensive experiments have been distinctly favorable.
>
> The promoters have planned for three subsidiary companies, to be known as the Lanai Ranch Company, the Lanai Beet Sugar Company and the Lanai Honey Company. The agents will be Hackfeld and Company. Lanai has been a comparatively barren Island of the Hawaiian group, but has been used to some extent for ranching purposes, the lack of a dependable water supply, however, even militating against the island as a productive ranch property. The new corporation that has now taken hold of the island, believes it can solve the problem involved in the water supply. One of the officials of the company, Mr. McCrosson, was actively engaged in the building of the great Hamakua ditch. A system of tunnels is planned whereby the waters not running into the sea will be conserved for irrigation purposes and it is confidently expected that the irrigation plans that have been outlined will prove a success in every particular. [Vol. xlv., No. 9. Page 136]

The sugar beet proposition was terminated by 1912, due to a lack of investment in development of infrastructure.

As early as 1910, the Lanai Company was also exploring the possibility of pineapple cultivation on the island, as reported in the Hawaiian Gazette:

> **November 22, 1910 (page 8)**
> **Hawaiian Gazette**
> …Several thousand pineapple tops have been sent to Lanai by the Lanai Company to develop its pineapple enterprise. The pineapple experiment on Lanai has been successful. The first ones raised weighed about eight and a half pounds each, but later ones were not so heavy, on account of the rows being too close. The industry will be developed on the island and made one of the principal by crops.

By November 28, 1910, it was reported that nearly 7,000 pineapple plants had been planted on Lānaʻi (in the Evening Bulletin, November 22, 1910:3)

In 1911, the Lanai Company engaged renowned Hawaiʻi and Maui rancher, Eben Low, to provide an assessment of the Lānaʻi operation in an effort to try and turn it into a profitable venture. Eben Low's report was extensive and included valuable descriptions of the Kōʻele vicinity facilities. Excerpts from the report, now housed in the collection of the Univeristy of Hawaiʻi – Hamilton Library, follow:

April 24, 1911
Report of Eben P. Low on Stock
And Condition of Affairs at Lanai (April 3-18, 1911)

Forest and Forest Fences
The protection of the forest to date is not completely carried out as the fences are long ways from completion and the forest on the lands are still open to destruction by wild goats and sheep…

No reforestation has been undertaken or nurseries started, possibly for reason that the forest fence is still incomplete and that none of the wild stock have been killed or destroyed… The forest fence from Koele to Kaohai is about four and one half (4 ½) miles in length and is fairly built with posts of red wood spanned 24 feet apart and of good galvanized wire of No. 8 and 6 gauges. This line of fence is not as yet paneled with 2x2x5 N.W. batons, purposely made for it. The intention of the Lanai Company is to put in only two batons, thus making the distance between the panels and the post 8 feet apart only; this I find unsatisfactory as far as making it a complete stock proof fence, so recommended to have three panels put up, making it 6 feet apart, or to use one long panel for a center stay and to cut the other two panels into four pieces thus making it five panel, which makes a positively complete stock proof fence. This latter proposition does not incur any more expense as far as the material is concerned, but it requires a few more staples and a little more labor. I refer to this style of fence as strictly essential for the protection of the forest unless the Company chooses to put up a Hog proof fence…

From Koele to Maunalei gulch the fence is partially completed and is in the same condition as the fence from Kaohai to Kalama and must be constructed on the same line as above suggested. The sheep and goats roam in abundance on this side of the Island. The section from the West end of Maunalei gulch to the South end of the large gulch at Kalama is still pen and judging by the way the work is now being carried on, it will take several months to complete this fence.

Fences, Pens and Paddocks
Kamoku Paddock. 2 mile of division line is completed and in good order… Only two new paddocks have been really created in the Company's administration, and is the Malauea and Kamoku paddocks. The Kamoku paddock was originally one large paddock and they now have made it into two by putting up a division fence, so creating it into two 1500 acre paddocks each.

The forest fence line is carried out as far as practicable on the lines agreed upon by the members of the Board of Forestry.

Wool Shed and Shearing Plant [Koele Ranch Headquarters]
Elaborate plans and specifications have been prepared for a new wool and shearing shed to be established at a point southwest of Koele on the land of Kamoku. The section selected is far better than the present location at Koele, it is a great deal warmer and from the damp and foggy weather that prevails at a higher elevation.

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It is centrally located for driving sheep for shearing.

Over 17,000 feet of lumber, I am informed, goes to Lanai by a special steamer this week for the new wool shed, pens, etc.

A 12 stand Stewart Shearing Machine has been ordered and is daily expected. It was shipped from New York during the latter part of February. The cost of the machinery at the factory is a little over $800.00 an when installed with a gasoline engine and other equipment, the total cost will be in the neighborhood of 12 to $1300.00. Building, pens, chutes and dips will cost in the vicinity of about 2000 to 3000 dollars when completed.

Plans for sorting, dipping, and marking pens have all been carefully prepared and submitted to the Company.

Tanks and Reservoirs [Koele Vicinity]
There are two large stone, cemented and Asphalt compounded reservoirs on the Ranch, one constructed by Chas. Gay, containing, I am told, when full approximately 500,000 gallons, more or less, situated about half a mile east of the Koele Ranch house, the large one just a few hundred feet back of the buildings at the same place containing approximately 5,000,000 gallons, more or less. The smaller on of the two is now full to the overflow pope. The big reservoir is nearly full of water, is just taking one and one half feet to the overflow pipe.

On the 15th of April 1911, I disconnected the inflow flume and closed up the outlet cock, so as to ascertain if the reservoir constructed by the company did not leak.

The time taken was from 6:30 P.M. of the evening of the 15th to 6:30 P.M. of the evening of the following day. The water was then at the 8'3" mark, in twenty-four hours the water showed 8'2", a loss of 1". I took a further test of 24 hours and if dropped again to 8'1", another loss of one inch, thus making a loss of 2" in 48 hours. This reservoir was constructed for $10,058.86 according to the statement sent to you as of Dec. 31/11 [10]. A small wooden flume is connected with this reservoir from the gulch back of Koele… [UHM Dole Collection, 1C1 Dr4 Fldr17 EP Low, Ranch Report (page 1-16)]

In 1911, George C. Munro was hired as the new ranch manager, and operations quickly shifted to cattle operations and work in stabilizing the landscape with the planting of eucalyptus, black wattle, ironwood, and various grasses. His work also extended up the mountain lands, and led to the planting of thousands of Cook Island Pine seedlings as a means of drawing moisture out of the clouds and recharging the diminishing aquifer. Munro came upon the idea of planting pine trees atop the island as a result of his observation that the lone Norfolk Island Pine that stood outside his Kōʻele residence captured moisture from passing fog and clouds. This caused condensation to form on his rooftop and the surrounding ground (Figure 14).

Figure 14. Kōʻele Ranch headquarters – Norfolk Pine and Manager's House in Background, Sheep Shearing Barn and Ranch Office (mid-photograph). Ray Jerome Baker Photo (1911) – HAPCo Collection (Lānaʻi Culture & Heritage Center)

May 3, 1911 (page 1 & 3)
Evening Bulletin
George C. Munro (Munroe) Hired as New Manager to Handle Lanai Project
G.C. Munroe [Munro], formerly manager for the Molokai Ranch, is being installed this week as the manager of the Lanai Ranch Company.

Mr. Monroe went to the ranch by the Claudine of last week, accompanying J.T. McCrosson, who will go over the whole field with him, and with them on the tour of inspection are Hon. Cecil Brown and H.M. Von Holt.

Good progress is being made on Lanai in all the various enterprises in which the ranch company is engaged. The development of water is still going on, the tunneling under the direction of Mr. Wagner is steadily bringing in new sources of water, that will eventually be reservoired and piped to the locations where it is most needed.

In addition to getting water from beneath the ground, the company is preparing to conserve it above ground. A forest fence is being built to protect the forests from cattle, and in a short time cross fences will be constructed and a regular campaign started for wiping out the thousands of goats that now help to destroy the forests and vegetation of the natural forest areas.

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Lumber is being hauled for the erection of a large new shearing shed equipped with all the modern details for handling the sheep of the ranch in the quickest and most humane manner. The sheds will be located on the lower levels and the sheep driven down to the shearing, and they will be kept in the lower levels for a time after the shearing so that they will not be subject to the cold rains and winds of the mountains.

The sugar beet growing experiments have gone forward with good success, though Mr. Poulsen, who has conducted the experiments, is soon to leave for the Coast. Watermelons and cantaloupes are being grown in good quantities by the Hawaiian employees of the ranch and they are making quite an industry of their small farming that they carry on as a "side line."

Capt. Soule is carrying on an enterprise that gives great promise. He has taken a section of favorably located land and is branching out into hog raising on quite a large scale. With ordinary success, this should develop into a very successful project.

Munro immediately set to work on improvements in ranch operations, facilities and the environment. His reports to the directors of the Lanai Company and subsequently to James Dole's Hawaiian Pineapple Company provide descriptions of the ranch work, island conditions, and changes in community and land use in the period from 1911 until he relocated to Honolulu in 1935. Excerpts George Munro's detailed reports and communications follow below. His descriptions of the Kōʻele Ranch Camp, larger ranch operations, and at times, difficult transitions into the pineapple plantation era of Lānaʻi are valued glimpses into the history of the land and people of Lānaʻi.

December 31, 1911
George C. Munro
To the Directors of the Lanai Company, Ltd.
…I herewith submit to you a report covering the last eight months, the period that I have been in charge of your property on Lanai.

Progress in improvements has, I think, been as satisfactory as conditions have permitted. About 28 miles of fencing have been made, some on exceedingly bad country, about 5 miles of 1" pipeline and 1-1/2 miles of 3/4" laid, creating 12 new watering places, woolshed and sheep-dip built, also laborers' houses and stable, much repairing of reservoirs, fences and buildings, 100 acres in one field plowed and sowed with grass and fodders, besides several other smaller fields cultivated, noxious weeds have been kept in check, and a considerable reduction has been made in the wild goats. Altogether, although there has been a few set-backs, I think a fair start has been made towards bringing Lanai into the conditions of an up-to-date ranch.

The rainfall for the time has been: May, 1.77", June .89", July 1.43", August .99", September, 3.61", October, 1.22", November, .41", December, 1.32", or a total of 11.64".

The pastures are drier now than at any time during the last eight months, and with ewes lambing, and cows calving, it is especially hard. Plans have to be

entirely changed, and the stock spread over as much country as possible…
[UHM Dole Collection, C1 Dr4 Fldr17 GCMunro LanaiCo Report (page 1)]

December 31, 1911
Lanai Ranch Report
Subdividing The Ranch
In the beginning of May stock turned out on Miki pasture could make a circuit of the Island, coming right around to Palawai Basin and look over the fence into Miki, from whence they started. Now they would find six substantial fences in the way of such a circuit.

The only paddocks then intact were Koele, Kamoku Nos. 1 and 2, Manele and Maluea [Malauea] , with the two small paddocks in the latter; now there are 14 separate pastures.

The fences built to make the present sub-divisions are: from Kamoku No. 1 to the sea, 8,600 ft., - a 7-wire fence separating Palikaholo and Kaena pastures; from Kamoku No. 1 to Maluea pasture, 12,500 ft., - a coil spring wire fence, separating Palikaholo and Miki pastures; from Manele paddock at Malauea to the forest fence at Kaohai, 16560 ft., separating Kaohai and Palawai; from Kamoku No.2 to Maunalei Gulch, 9,792 ft., separating Kaa and Mahana, and Mahana and Maunalei; from Mahana to the sea, along the Maunalei Road, 17,208 ft…

Kamoku No. 1: Connects with Palawai, Miki Palikaholo, Kamoku No. 2 and Koele. Includes two sheep shed paddocks of a few acres, and Rhodes grass hay paddock, about 1 acre, near Koele. Will be very valuable country when paddocked, plowed and put into new grasses. About 800 acres.

Kamoku No. 2: Joins Kamoku No. 1, Kaa, Kaena and Makana. Includes new Rhodes grass paddock near woolshed, and new plowed grass and rape paddock near Koele. Valuable land; same as Kamoku No. 1. [page 5]

Koele: Includes three small paddocks, and one larger next to Mr. C. Gay's. Capable of much improvement by cultivation.

Water Distribution
Sub-dividing lands means further water distribution and development, and as each pasture was fenced, pipelines were put in to furnish water…

The disposal of the Maunalei water will depend somewhat on what amount can be developed in the Kaihonua [Kaiholena] tunnel. If we strike enough for the use of the stock on the upper lands, and I think it probable that we will, the bulk of the Maunalei water could be used for irrigating alfalfa in Maunalei Valley. If sufficient water cannot be found on the Koele side, Maunalei water will have to be pumped up out of the valley into Koele reservoir, or up to Maunalei road into a new reservoir there. The stream from the tunnel has shown no noticeable variation since the tunnel was completed…

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Koele Reservoir
The 5,000,000 gallon reservoir was emptied in November, and quite a lot of work done to repair the bottom, and make it watertight, and I now have hopes that it will hold without leaking. The Kaiholena reservoir will be washed with cement when we get water into the large reservoir again. The house cisterns are also undergoing much needed repairs, and new covers will be put on. [UHM Dole Collection, 1911_12_31 C1 Dr4 Fldr17 GCMunro LanaiCo Report (pages 1-29)]

The efforts at developing diversified agriculture on Lānaʻi in this period failed, and in 1917, Lānaʻi was once again on the market. In January 1917, it was reported that both the Hawaiian Pineapple Company and Libby, McNeill & Libby were exploring the possibility of purchasing Lānaʻi for pineapple cultivation. The deal did not progress, and on March 3, 1917, Frank and Henry Baldwin purchased the entire island, along with all of the Lanai Ranch lands, livestock and personal property for $588,000 (Bureau of Conveyances, Liber 468, pages 189-194).

March 9, 1917 (page 5)
Maui News
Lanai to be Used as Big Cattle Ranch
(Baldwin Brother Purchase Lanai – Operate from the Koele Headquarters)
As announced by wireless last week, the island of Lanai has been bought by F.F. and H.A. Baldwin, and is to be used primarily as a cattle ranch.

The Star Bulletin gives the following details of the deal in its issue of March 1:

Lanai Island passes into the ownership of F.F. and H.A. Baldwin. Neither Libby, McNeill & Libby nor the Hawaiian Pineapple Company is in the deal for its purchase, which was closed at noon today. James F. Morgan Company, Ltd., represents the purchasers and the Waterhouse Trust Co., represents the sellers.

The unexpected and surprising element that enters into the sale of Lanai Island is the fact that no pineapple interests are included in the purchase. For months deals have been pending for the property and Libby, McNeill & Libby and the Hawaiian Pineapple Company were included among the prospective buyers. They went so far as to carry on an investigation of the possibilities for pineapple growing and it was understood that there only remained to be made arrangements for the utilization of the grazing areas by cattle interests for the completion of the deal with them.

Late yesterday the developments of the ranching interest became known, and the Star Bulletin's information then was confirmed and amplified this morning.

It was learned this morning, following a meeting at which final details were arranged, that the $400,000 stock in the Lanai Company and fee simple title to the island pass by the transaction. The consideration is said to have been $588,000.

The Island of Lanai is to be a big cattle ranch. It is with that purpose that the Baldwins have purchased it. They will not, it was learned after the deal had been closed, make any leases of any part of the island to pineapple interests, but use

it entirely for stock and cattle ranch purposes.

James D. Dole of the Hawaiian Pineapple Company, when interviewed by telephone, said that his company had not been interested in the proposed purchase of the island, and from other sources it was learned that had one of the former deals gone through the company would have secured a lease of 15,000 acres.

The island of Lanai is about 21 miles long and 14 miles wide, and contains more than 90,000 acres. The stock holders of the selling company were Cecil Brown, F.E. Thompson, J.T. McCrosson, Hackfeld & Co., and C.Q. Yee Hop. [Maui News – March 9, 1917, page 5, c. 2]

In 1922, Ulupalakua Ranch, which also operated ranching on the island of Kahoʻolawe, came on the market. The Baldwin brothers wanted to add the ranch to their already substantial Maui holdings, so they offered the island of Lānaʻi, along with all the ranching assets, for sale. This time James Dole's Hawaiian Pineapple Company (HAPCo) stepped up and on December 5, 1922, the Hawaiian Pineapple Company, Limited purchased all of the Baldwin holding on Lānaʻi (Bureau of Conveyances, Liber 659, pages 412-416). In 1923, Dole began development of the Lānaʻi plantation, and city, while also maintaining the ranch operations out of Kōʻele.

The Kōʻele and Kaiholena Reservoirs

When it came to business endeavors and operation of the ranch, water was one of the major concerns. The 5,000,000 gallon reservoir at the Kōʻele headquarters (Figure 15), and the smaller Kaiholena Reservoir (Figure 16), fed by water pumped from Maunalei Valley, and then flumed to the larger Kōʻele Reservoir, were critical to ranch operations. Under Munro's leadership, other potential water sources along Lānaʻi Hale were also sought out. In October 1922, G.C. Munro submitted a report to the Balwin Brothers on water development, which would also be of value in the pending decision of James Dole's purchase of Lānaʻi for the pineapple plantation.

October 1922
Lanai Water Notes
By George C. Munro
Koele reservoir has a capacity of about 5,000,00 gals., which is collected from rain water by flume from Kaiholena Valley. Kaiholena reservoir has a capacity of 523,246 gals., supplied from Maunalei pumps, or from a 2" pipe from Kaiholena valley which runs in varying amounts, being seldom entirely dry, but sometimes so for a few months of the year.

Mahana Valley has a spring connected with a ¾" pipeline to the stock system and runs a part of the year. On the western face of the mountain there are ten springs which run in varying capacity for part of the year and like the above, being seldom entirely dry.

At intervals along the east coast from southern end of the algarroba belt to the Awalua landing water runs out at high water mark in some place in considerable streams.

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Notes by G.C. Munro
Available Water on Lanai

Pump intake spring measurements taken:

Aug. 16, 1919 …..	108,000 gals. per 24 hours
Oct. 5, 1919 ….	108,000 gals. per 24 hours
Feb. 25, 1920 …..	123,000 gals. per 24 hours
Dec. 15, 1920 …..	50,800 gals. per 24 hours

At intervals along the east coast from southern end of the algarroba belt to the Awalua landing water runs out at high water mark in some place in considerable streams.

Figure 15. The Kōʻele Reservoir (ca. 1922), Kenneth Emory Collection (M. Suki Richardson Nakoa, Lānaʻi Culture & Heritage Center Collection)

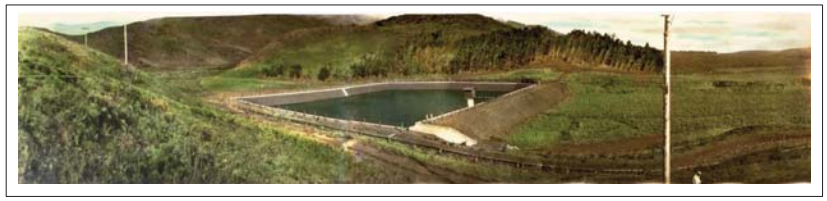

Figure 16. The New Kaiholena Reservoir and Flume (1926), Courtesy of Takashi Tokumatsu (Lānaʻi Culture & Heritage Center Collection)

Notes by G.C. Munro
Available Water on Lanai

Pump intake spring measurements taken:

Aug. 16, 1919 …..	108,000 gals. per 24 hours
Oct. 5, 1919 ….	108,000 gals. per 24 hours
Feb. 25, 1920 …..	123,000 gals. per 24 hours
Dec. 15, 1920 …..	50,800 gals. per 24 hours

Measurements taken over 12” weir slot 600’ up inside the [Maunalei] tunnel:

	No. Gals. per 24 hours
Feb. 25, 1920	357,000
Oct. 11, 1920	344,697
Dec. 15, 1920	304,922
Dec. 29, 1920	357,000
Mar. 15, 1921	305,035
Jul. 25, 1921	270,152
Sept. 20, 1921	221,025
Nov. 5, 1921	205,514
Dec. 7, 1921	221,025
Jan. 5, 1922	253,338
Jan. 10, 1922	253,338
Feb. 5, 1922	270,142
Feb. 10, 1922	236,536
Feb. 20, 1922	221,025
Mar. 1, 1922	226,536
Mar. 15, 1922	221,025
May 15, 1922	205,514
May 30, 1922	205,514
June 12, 1922	205,514
June 20, 1922	205,514
July 5, 1922	205,514
July 15, 1922	205,514
July 16, 1922	253,338

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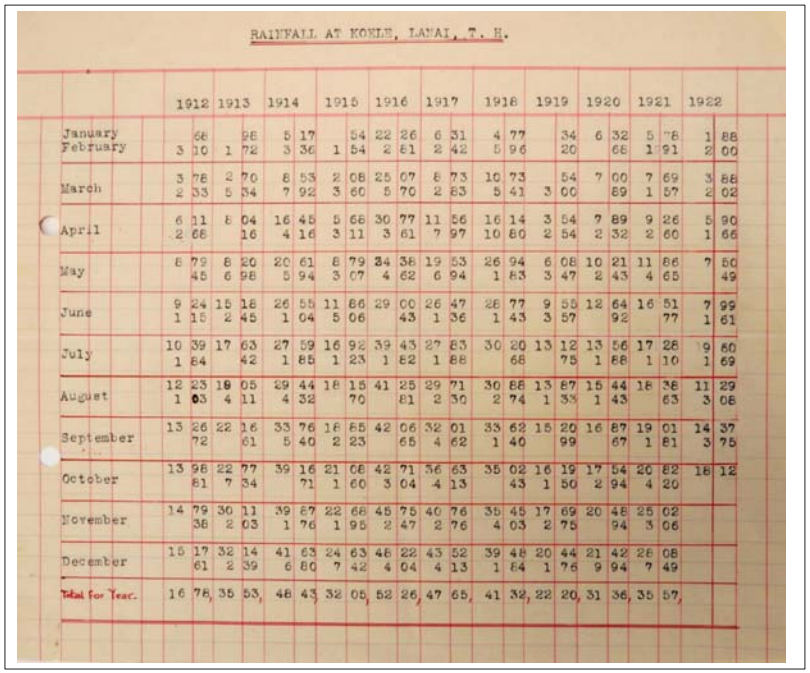
July 18, 1922	221,025
July 25, 1922	205, 514
Aug. 2, 1922	190,004 (?)
Aug. 8, 1922	205,514
Aug. 15, 1922	221,025
Aug. 23, 1922	205,514
Aug. 30, 1922	205,514
Sept. 5, 1922	221,025

Rainfall at Koele, Lanai, T.H. [Koele Rainfall Chart, for the Years 1912-1922. Figure 17. UHM Dole Coll. C 1, Dr. 4, Fldr. 23]



RAINFALL AT KOELE, LANAI, T. H.

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922
January	68	98	5 17	54	22 26	6 31	4 77	34	6 32	5 78	1 88
February	3 10	1 72	3 36	1 54	2 61	2 42	5 96	20	68	1 91	2 00
March	3 78	2 70	8 53	2 08	25 07	8 73	10 73	54	7 00	7 69	3 88
	2 33	5 34	7 92	3 60	5 70	2 83	5 41	3 00	89	1 57	2 02
April	6 11	8 04	16 45	5 68	30 77	11 56	16 14	3 54	7 89	9 26	5 90
	2 68	16	4 16	3 11	3 61	7 97	10 80	2 54	2 32	2 60	1 66
May	8 79	8 20	20 61	8 79	34 38	19 53	26 94	6 08	10 21	11 86	7 50
	45	6 98	5 94	3 07	4 62	6 94	1 83	3 47	2 43	4 65	49
June	9 24	15 18	26 55	11 86	29 00	26 47	28 77	9 55	12 64	16 51	7 99
	1 15	2 45	1 04	5 06	43	1 36	1 43	3 57	92	77	1 61
July	10 39	17 63	27 59	16 92	39 43	27 83	30 20	13 12	13 56	17 28	9 60
	1 84	42	1 85	1 23	1 82	1 88	68	75	1 88	1 10	1 69
August	12 23	19 05	29 44	18 15	41 25	29 71	30 88	13 87	15 44	18 38	11 29
	1 03	4 11	4 32	70	81	2 30	2 74	1 38	1 43	63	3 08
September	13 26	22 16	33 76	18 85	42 06	32 01	33 62	15 20	16 87	19 01	14 37
	72	61	5 40	2 23	65	4 62	1 40	99	67	1 81	3 75
October	13 98	22 77	39 16	21 08	42 71	36 63	35 02	16 19	17 54	20 82	18 12
	81	7 34	71	1 60	3 04	4 13	43	1 50	2 94	4 20	
November	14 79	30 11	39 87	22 68	45 75	40 76	35 45	17 69	20 48	25 02	
	38	2 03	1 76	1 95	2 47	2 76	4 03	2 75	94	3 06	
December	15 17	32 14	41 63	24 63	48 22	43 52	39 48	20 44	21 42	28 08	
	61	2 39	6 80	7 42	4 04	4 13	1 84	1 76	9 94	7 49	
Total for Year.	16 78,	35 53,	48 43,	32 05,	52 26,	47 65,	41 32,	22 20,	31 36,	35 57,	

Figure 17. Koele Rainfall Chart, for the Years 1912-1922. (UHM Dole Coll. C 1, Dr. 4, Fldr. 23)

Hawaiian Pineapple Company, Limited Purchases Lānaʻi Ranch Operations From Kōʻele "Ranch Camp" Continued

In November 1922, Dole's Hawaiian Pineapple Company purchased the island of Lānaʻi from the Baldwin Brothers, announcing that it would develop arable land into the pineapple plantation, while also maintaining the ranch operation out of Kōʻele. As the plantation developed, ethincally oriented job-type "camps" (e.g Japanese Camp, Stable Camp, Crusher Camp, and Harbor Camp, etc.) were defined. The old ranch community became known as "Ranch Camp." The Maui News of November 17, 1922 carried a story about the purchase of the island—

November 17, 1922 (page 1)
Maui News
Hawaiian Pineapple Company Acquires Island of Lanai in Million Dollar Deal. Honolulu Concern Plans Gigantic Development of Pineapple Industry on New Holdings; 10 Year Expansion Program Under Contemplation.
Marking the largest real estate deal in the history of the Territory, the Hawaiian Pineapple Company today announced it has exercised its option to purchase the Island of Lanai and has consummated the opening of new fields on Lanai will be far reaching.

The move, local pineapple men say, is one of the greatest ever made in Hawaii's second most important industry, and the effect of a deal embracing $1,100,000 with Harry and Frank Baldwin.

The island for which the sum was paid has an approximate area of 150 square miles, or about 100,000 acres of which, recent investigators reported, about 25,000 acres are suitable for the growing of pineapples. Of the entire terrain, less than 1000 acres is owned by outside interests.

Tentative Plans
Associated Press dispatches from Honolulu declare the company expects to plant between 12,000 to 15,000 acres to pineapple and will continue to operate the island ranch, which at the present time contains 5000 head of cattle.

The development of the new tract will be extended over a 10-year period in order to cause no break in the pineapple market, advices declare. It is also officially asserted that no outside capital to handle the project will be required.

Frank F. Baldwin was in Honolulu yesterday attending to final details of the deal.

Option Obtained
That such action might be taken was first made known in September when the Hawaiian Pineapple Company secured three months option on the Lanai holdings. Previously the land had been examined by others investigators and characterized as unsuitable for the production of pineapples.

A subsequent survey, however, reversed earlier reports and on Nov. 4, a committee sailed for Lanai on the Bee for the purpose of investigating harbor conditions. At the same time this committee acted as representatives of the

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Hawaiian Pineapple Company.

Investigate Lanai
The party included: R.W. Fuller, head of Hawaii Consolidated Railroad Company; Captain Soule and T.H. Petrie. It is assumed their findings formed one of the final links in the chain which attached the island to the holdings of the pineapple company.

No details as to the probable date of starting operations on the island or the manner in which the production work will be carried on could be obtained today, but it is expected that Frank F. Baldwin will issue a formal state on his return to Maui. [Maui News – November 17, 1922, page 1 c. 6]

In just over four-years after the announcement that Dole's Hawaiian Pineapple Company purchased Lānaʻi, The Maui News published an update on progress of the development (one of several articles since the purchase), describing progress on the island. One observation was that in preceding years, Lānaʻi would be "doomed to classification as waste land in the future, suitable only for cattle grazing" (December 24, 1926:2). During the period of plantation development, the ranch continued as a valuable part of the island's operation, and was the source of all of the beef eaten by the growing population.

December 24, 1926 (Section 7, page 2)
Maui News
Lanai Transferred into an Island of Pines–Hawaiian Pineapple Company Waves Magic Wand of Industry to Turn Wastes into Fruit Bearing Fields

Lanai has an area of a little over 100,000 acres. The greatest elevation of its summit ridge is 3,200 feet; its length about nineteen miles, and the greatest breadth ten miles. This island presents an uninviting appearance when observed from the sea. At all times of the year it presents to the voyager only brown, treeless ridges, and ravines running down to the water's edge. Vancouver is the first European writer who makes any mention of the island, and he in 1794 expressed the wonder that an island of such a barren appearance could support any population. Kotzebue, who passed later through Hawaiian waters, made similar disparaging remarks about the island; yet at the time of Vancouver's visit to the archipelago, the island of Lanai had according to native accounts and various evidences, a population of about 6,000 people, who were bounteously fed by its own products.

The traveler who first visits Lanai meets with an agreeable surprise. He may be a little repelled at first by a hot, sandy and stony beach, and he will not be much encouraged as he toils up a brown and parched hillside for about a mile; but when he reaches the summit of the ridge on either the eastern or western end of the island, he is astonished and delighted as he looks down upon broad plains of verdure…

Real Civic Group
Riley Allen, Editor of the Honolulu Star Bulletin, said that the development of the island of Lanai by the Hawaiian Pineapple Company "is the peak of industrial achievement thus far recorded in Hawaii. Here an island which long has been

comparatively isolated from the rest of the territory is being transformed into a busy, thriving, happy, productive community…"

"There is more, much more on the fertile island of Lanai than broad fields for a yield of Hawaii's premier fruit and a machine for getting that fruit from the fields and started toward the great cannery in Honolulu. There is the foundation for a considerable group of productive workers given facilities for production as nearly perfect as business skill and foresight can provide. And with it they are given the things which transform a group of human individuals into a real community."

"Before this investment of approximately $3,000,000 began to return a penny, the Hawaiian Pineapple Company provided its workers not only with accommodations for living, but with accommodations for enjoyment and recreation to a notable degree."

Schools, churches, a model playground, a fine baseball field, a swimming pool, tennis courts, and ample and well equipped auditorium, and moving picture theater are as much a part of Lanai City as the fine roads, and well-appointed office, or the model machine shop; as much a part of the whole enterprise as the harbor that has been hewn out of the cliff walled beach…"

"I do not know whether or not James D. Dole, president and guiding genius of the Hawaiian Pineapple Company, and his small army of loyal and willing and enthusiastic associates have ever reduced to words the spirit of the Lanai enterprise of the Hawaiian Pineapple Company as a whole. Probably not. Men who do such things as they are doing them, seldom stop to talk much about them. Talk, you see, is somewhat superfluous in the face of facts colossal facts, which speak for themselves."

Colossal Fact
"Lanai, in physical terms is an island of 140 square miles, with 90,000 acres, some 20,000 of which are regarded as good pineapple land. On this island a big pineapple company has developed a harbor and wharf; a main arterial highway for hauling pineapples by truck and for other vehicle traffic. It has built quarters for employees, an office, a hospital, school and other buildings. It has planted 1,200 acres of pineapples. Has plowed some 3,000 acres of land, and is planting a lot more pineapples. It shipped tons of pineapple this season."

"Lanai is not only a fertile land which promises to be the greatest single pineapple producing area in the world, but it is a community of people. It is a community of homes. It is a spot where families, many of them, are finding a secure foothold in life, a bright outlook for the future, a place for themselves and their children."

"It adds not only to the dividends of the Hawaiian Pineapple Company and the economic wealth of the territory, but to the territory's homes and the territory's wealth."

"It is a business enterprise launched also as a civic undertaking. The building of schools and churches has paralleled the building of roads and machine shops.

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The commodious office stands adjacent to the equally commodious community auditorium. The fields of growing pines center around a little town that is called ambitiously, 'Lanai City' and has a spaciousness, a cleanliness, a thrift and air of organized well-being which cities far greater have not."

Land is valuable on Lanai, but not so valuable that the builders of Lanai have let pineapple growing stifle children growing. When the little new town, with its business buildings and its homes, was laid out, there were also laid out broad grounds for play fields. A baseball and football field is as much a part of this town as the post office. On the play grounds there are swings and slides and sand pits, and teeters, and the other things upon which healthy, growing, restless children can expand their abundant energies…"

Lanai's uplands are like no other stretch of Hawaii lands. They are less traversed by gullies, less broken by ridges. There is little rock, little scrub brush. The fields are more like those of some plateau country of the Far West, plus the greenness of verdure which only Hawaii can display.

Real Vision
The possibilities [for more pineapple acreage] were foreseen 10 years ago, and again the vision of James Dole and his associates came into play. The problem lay in acquiring more land, but pineapple require a special soil and special climate conditions to produce the standard of fruit fixed and there were admittedly few areas of any size left in Hawaii that were suitable.

There was the island of Lanai where it had been demonstrated that pineapples might be grown successfully in patches, but its great stretches, it was believed by many, were doomed to classification as waste land in the future, suitable only for cattle grazing.

There was the problem of heavy trade winds which hit portions of the island incessantly and this along, it was held, would foredoom the success of pineapple raising.

Another factor that threatened failure of pineapple cultivation on the island, it was held, lay in the absence of an ample water supply for domestic purposes.

It didn't take the company long to see solutions for both problems and it took an option on the entire island, exclusive of three or four small kuleanas. The land embraced in the area covered by the option included 89,000 acres and the purchase price, $1,100,000, included also the title to some 5000 head of cattle on this island. The purchase was completed in the exercise of the option in less than three months after the option arrangements had been entered into… There began the development which was to transform the great waste stretches into a veritable garden with a model, modern little city and every imaginable convenience and comfort, even down to radio telephone service in the midst of it… [Maui News – December 24, 1926; Section 7, page 2, c. 1]

George Munro's March 1933 report (excerpts below), covering 29 pages and spanning the period from 1911 to the date of writing, offers a rich overview of the Kōʻele landscape, use of the land resources, key ranch employees, and growing conflicts between the ranch operation and pineapple plantation. Valuable fattening paddocks of the Kōʻele section were being converted to city, pineapple and even golf course purposes by the mid to late 1920s. The report also documents the role of the ranch in supplying the growing Lānaʻi City population with beef, pork and mutton. In the early days of the plantation, hunting was controlled and limited to certain individuals, plantation laborers were not allowed to ride horseback, and access across Lānaʻi Hale (the mountain lands) was restricted. The adjoining Kōʻele paddocks (Iwiʻole-Kihamāniania vicinity) were already being used for golf course activities; and the rich paddocks immediately below the ranch were being converted to an airfield for island transportation.

December 31, 1933
Managers' Report - George C. Munro (Lanai Company, Limited)
To the President and Directors of Lanai Company, Ltd.
(Loss of pasture lands, drought; efforts at extermination of goats and deer)

[Thirteen years after G.C. Munro introduced a small herd of 12 axis deer to Lānaʻi (12 deer brought in 1920 from the Molokaʻi herd), he was already engaging in efforts to exterminate them, as a means of protecting the land and larger plantation operations.]

The year 1933 has been a hard one for the ranch. Dry conditions, lack of fattening lands, & loss of so much of our local market for sheep and pigs made it difficult to keep expenditures near our estimate…

Forestry
All forestry work had of course to be abandoned & even the ranger was withdrawn till the drought made fire a menace and one was put on again at the ranch expense till the weather broke.

Goats
It seemed for two years that the goats were almost gone only 2 or 3 being suspected to exist, when suddenly over a score appeared from nowhere. They had evidently been isolated for a long period on an out of the way ridge in the forest, 17 were killed in the year. There are probably ten left.

Deer
The deer are very difficult. I had hoped to get all of the females but there are probably still some. If once all the does were killed the bucks would be taken in time as their good hears would be an attraction to sportsmen. Four deer were killed three bucks and one doe. It is extremely difficult to know what number of deer are left and what proportion are does if any… [UH Mānoa, 1933, Dec 31 Dole Coll. Lanai Co. Ranch Report, G.C. Munro]

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March 17, 1934
George C. Munro, Manager, Lanai Ranch
To K.B. Barnes and Directors of Lanai Company, Limited
Annual Report of the Lanai Ranch —
Observations and Recommendations 1911 to 1933

When I took the management of the Lanai Ranch in 1911, Mr. Eben Low had just taken a count of the stock and found 799 head of cattle and 20,588 sheep.

The sheep were found to be unprofitable & we changed over to cattle by purchase and breeding.

When H.A. and F.S. Baldwin bought in 1917 there were over 4,000 head of cattle and only 2,600 sheep on the island.

Up to 1919 the ranch showed no profit, a larger yearly interest having to be met. After that the business showed as follows.

	Net Profit	Interest paid	Amortization of Leasehold interests	Loss
1919	$23,539.48	$19,215.53		
1920	692.98	18,403.65		
1921		17,1787.65	$11,331.63	$1,374.91
1922	1,843.69	19,845.71		

In 1922 the Hawaiian Pineapple Company both the property, and the ranch took another position. It became "Pineapple and not cattle" at least what was the answer I got from Mr. Dole in 1923 when I protested against the plantation and taking 1,000 acres of the best winter fattening land, when it only need 300 acres for plowing. This was before I had a chance to reduce the stock by one head to meet such a situation, the decision to plow being a sudden one. I decided to meet the plantation in every possible way, giving over hands lands without protest whenever asked or them. In fact I took the stock off large areas subject to eroding before being requested to do so, hoping that the rich and less exposed lands would be left to the cattle as long as possible…

The Future. The ranch now starts out on a new era and to be allowed to make ends meet should have more consideration on a number of the points… taxes, salary etc.…

Excerpt form the report of 1930, "As near as can be seen at present we have enough beef to supply the butchers per year with only the weight they took in 1930 for the next three years. In 1934 if we have good luck with calves in 1931 we can furnish them 600 head. To supply the local demand we will plan on increasing the herd to about 3,000… The butchers could not sell the mutton lamb to any extent but we managed to work up a sale for whole carcasses to Lanai City people and other island and in 1931 & 32 we sold 909 and fed 727 to the pigs. A movement on the plantation end succeeded in stopping the sideline but the work had about reached its profitable limit anyway.

Our pig business was working up well during 1931. There seemed to be an impediment in the way of the butchers buying from outside island and the Lanai City pig ranch had a favorable selling rate. We sold to the butchers at the same rate but our pork was so superior that it was preferred and we were eventually prohibited from selling to the butchers and even to our old hands who had to leave the ranch fort eh plantation as we shortened hands. We now sell our hogs to the Lanai City hag ranch in preference to sending to Honolulu."

Whilst I have the greatest regard and respect for the memory of a very good friend in the late Mr. John Whitmore, and a high regard from Mrs. Dole and am personally quite friendly with Mr. Bloomfield Brown, I am much at variance with their business methods as applied to the ranch.

The latter has been obsessed with the idea that the ranch business should be eliminated. The others were indifferent and gave in altogether too much to him in this respect.

As I have been asked to go into every phase of matters concerning the ranch I cannot pass this over and if the ranch is to continued it should be looked on as a part of the Company's property and treated accordingly… The contention that cattle are injurious to pineapple land had no application to the lands we were using… If it were decided to eliminate the ranch business I would recommend the following course.

At once to stop all cattle breeding… As the herd is reduced, the pastures, starting at the northwestern end, could be thrown out and the fence and pump material thus released used for repairs…

It would be much better to gradually sell of the stock and keep the old gang on the ranch and use them in spare time to finish up the wild animals, spread grass and useful tree seed, do some planting in the forest and salvage material where released…

The spread of algarroba is an important help in soil building and this would stop entirely with no stock to spread seed. I have never seen the algarroba sprout in the pod… It would be more satisfactory for me as manager to administer the forest and all work under me such as prevention of erosion on waste lands with funds from the ranch even if we only broke even…

Upkeep
There are now on the ranch approximately seventy miles of wire fencing, thirteen corrals, forty miles of pipeline, fifty-three iron troughs, eight windmills, twenty-three tanks, several buildings at Keomuku and the village of mostly old buildings at Koele.

Erosion
Erosion has been going on, on Lanai for many thousands of years. The top soil is lighter and more powdery than almost any soil I have seen in fifty years of agriculture and soil study; I think even more so than that of Makaweli, Kauai, when first broken up. Ninety feet of soil has accumulated in the shallowest part of

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Palawai basin and up to sixty feet or more of surface has been taken off large areas on the east side of the mountain. So susceptible is the surface to disintegration from sun and air that good pasture is growing now on much of this eroded country.

Erosion was undoubtedly going on before human beings inhabited the islands. Their arrival increased it and when sheep were allowed to range freely year in and year out and goats to run wild and infest the lands erosion must have been greatly accelerated.

Cattle have been blamed for causing erosion but their influence in this direction is mild compared with other stock and with agriculture they are noting when intelligently handled. They certainly kill out the forests on the wet mountain tops but have done inestimable good in spreading the algarroba tree over the more arid lands…

Employees if Ranch Abandoned
Robert Cockett $100.00 a month, in early 50s, with the ranch from 1908 to 1919 and from 1922 to 1934. An intelligent and loyal employee. Keeping the books and carrying as my representative on the island in my absence. Would be useful to the plantation in a clerical or overseeing capacity.

James Kauila, head luna $2.60 a day, in the late 50s, faithful and exceptionally hard working Hawaiian. Well up in all kinds of work on the land. Might be useful as plantation luna. When we loaned our Hawaiians to the plantation last year they made a good showing beside the old pineapple pickers.

Daniel Kaopuiki caretaker on the east side at $2.00 a day, in early 40s. Useful to the ranch but not likely to fit in with plantation work. On Lanai all his life, has large family.

Henry Gibson, ranch hand at $1.95 a day, in middle 60s, grandson of Water Murray Gibson. Has spent most of his life on Lanai. Has excelled as a hunter guide to visitors and in stock work. He's ripe for pensioning is such an institution is in existence.

Simeon Kauakahi, ranch hand at $2.00 a day, in middle 50s, butcher, saddler. Would not be of much use in plantation work, though useful to ranch.

Joseph Kaneapua, cowboy at $2.00 a day, in early 30s.
Johnny Richardson in middle 20s, cowboy at $2.00 a day.
Ernest Richardson, in early 20s, cowboy at $2.00 a day.
Jeremiah Kaopuiki, cowboy at $2.00 a day, in early 20s.

These four younger me could take up any line of work with the plantation. All are good useful boys.

Kwan Gi Hong, water and fence rider at $2.00 ad day, in middle 40s, good hardworking, and useful Korean. Would probably fit into plantation work.

Kim Soo Woon, year man at $1,75 a day, in later 40s, ½ time with plantation, rather exceptionally good workers. Formerly plantation contractor.

Shin Bong Soo. Water and fences at $1.60 ad day, in late 40s, has been with ranch for 23 years. Faithful employee, would find it hard to fit into plantation work.

Kim Young Hung. Tends hogs at $1.60 a day, in late 60s. Has been with the ranch from 1909 to 1920, and from 1923 to 1934. Handled Korean gang fencing, seed sowing, etc. Would find it hard to fit into plantation work.

Lloyd Cockett, at $1.60 per day, in teens. Taken on as forest ranger in the dry months. Beginning as helped in all departments in hope that he will be a good all-around man if the ranch is carried on.

The Landing Fields [Early Lanai Airplane Landings]
This has been surveyed on the flat below Koele. Part, as I mentioned before, of the areas that constituted some of the richest soil on the island. This land is equal in richness to a great deal of Palawai basin and it seems a pity to see part of the town and a flying field occupying part of it when the ranch urgently in need of fattening land cannot even pry the Chas. Gay lands away from the plantation.

Taking an early morning walk through the pineapple fields below Koele I watched the fog bank coming over the rise from Kaa to Kaohai nearly the length of the top of the island. I realized that the prospective field is scarcely if anything more free from fog obstruction than the old field. Talking with Mr. Elliot, the pilot, he said that was the only detriment to the prospective field. The value of the land is certainly another, though, indeed, it may not be the finest pineapple land…

If it is decided that the ranch be kept as a going concern for the satisfactory beef it provides for the employees, as a reserve business, and to build up the country and cover. It can be well done by keeping only 2,000 to 2,500 cattle. Resting pastures periodically from several months to two years as necessary…

General
In my 30 years of ranch management in dealing with workmen I have found that an "espirit de corps" pride in the institution they are working with, loyalty to the Company and managers can be worked up by the manger by treating them humanly. He may do a very great deal for the men, house them well and pay them well and see to their pleasure and comfort. But this may lose a great deal of its value without the human touch… I found the ranch store an important aid in keeping the families comfortable and out of debt. I greatly regret discontinuing our store here at Koele. Mrs. Forbes when keeping our books and store invariable netted for the ranch more that the salary we paid here…

Had I been aware that the plantation did not intend to keep its own butcher shop the ranch would have done so and kept the profits within the Company and the people be as well or better served. I had been asked to carry on the butcher shop and dairy and declined as I considered they were plantation institutions and the further apart the plantation and ranch could be kept the better they would get along together…

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Personally, my treatment by the Hawaiian Pineapple Company has been all that could be desired… I have been allowed a very free hand in the ranch management and forest work. But as I told Mr. Dole some time ago that whilst I had been treated very well the ranch had been treated badly… My knowledge of the land might have been used more than it was to the benefit of the Company. Once work was started my advice was little sought and I was reluctant to offer it unasked as it might be thought that I was unduly "butting in" on the pineapple end. A remark that there were "too many fingers in the pie" in regard to town planning gave me some caution. I was rather shocked afterwards to see a part of the town laid out in what I knew to be some of the richest land on the island. The site I had in mind when I guided Mr. Whitmore to the place was the hillside where the land was poorer and drainage easy. If the ranch could get 200 acres of the flat black soil it would be a veritable godsend to it in its present state…
Give the ranch the strip of land from Koele to the Kapano valley – mostly the Chas. Gay lands – so that we can prepare our cattle for the Honolulu trade, and compete with Honolulu beef both in quality as well as price in the local trade. Some Lanai residents are now getting beef from Honolulu and our suspicion is that though we have reduced our prices to Honolulu the Lanai City Butchers had not reduced in proportion.

Do away with the present ridiculous situation of the ranch selling pigs to Tanigawa who sells with a profit to Okamoto and Yet Lung, who sell with a further profit to your employees. Do away also with the prohibition from selling ranch sheep wholesale in Lanai City.

[Hunting, Horseback Riding, Access Across Mountain Lands Controlled—Portions of the Koele Paddocks Converted to Golf Greens]
Cancel or modify the irksome restrictions on your responsible employees against horseback riding, hunting and traversing the forest region under the permanent passes furnished them by the ranch management. Spirited persons will rather restrict their activities than run to papa for permission every time they move… One argument for some pasture recompense is the fact that a great part of our home pastures is kept mowed close for the golf greens.

The golf greens toll detrimentally on our beef cattle not only by reducing their feed but by stampeding them through the fences. Any disturbance and shortage of feed reduces the quality of the beef. If we were given the section I speak of we could make other arrangements for holding our local beef supply and the golf course affect us that much less…

The strip of land that I am asking for the ranch runs from Koele to the Kapano valley and takes in the Charles Gay lands and a patch between that and Koele.

It would connect the north and south holding of the Lanai Company and furnish us with paddocks, (though the land is not nearly so rich as other lands) upon which we could fatten 100 or more cattle for Honolulu every year. These paddocks could be improved into very good fattening land. Part is pasture through [where] formerly Charles Gay grew pineapples on it, part is in old pineapple crop and part in panicum grass…

The Lanai beef trade is largely to supply laborers who do not like to pay for much fat with the meat. The white trade is but a small proportion. The condition of the Lanai beef is very suitable for laborer's trade and profitable for the butchers as so little has to be cut away. The customers prefer Lanai meat and complain that though fatter the Honolulu meat is inferior… [UH Mānoa, Dole_Coll_C1Dr4Fldr27_LanaiRanch]

1934 (ca. September)
Lanai Company Limited
Report of Outgoing Manager, to Hawaiian Pineapple Company
(Retirement of G.C. Munro; Ernest Vredneburg to be brought on to manage the ranch; recomendations)

...Favorable showers have fallen on some of the pastures and the prospects of getting 50 head of cattle in shape for shipping to Honolulu during each of November and December are now very good. The west and northwest pastures are green and the east side is dry, a very good conditions for this time of year.

In accourndance with an understanding wiht Mr. B.B. Barnes I turned over to Mr. H. Bloomfield Brown at noon of Aust 27, the interested of the Lanai Company of which I had been in charge. The ranch management automatically lapsed for the time being. I spent the best part of four days with Mr. Freidenberg [Ernest Vredenburg], who I understand will handle the management of the ranch.

From conversations with Mr. Barnes I infer that I am sitll with the Hawaiian Pineapple Company in an advisory capacity. I have not been notified o any change in salary.

If Freidenberg is to make a fair trial of the ranch he should be allowed an opportuntiy to do so. So long as he is under Brown he has not the remotest chance to make good. The latter is apparently unable to change his attitude of antipathy to the ranch as a business on the island.

I advise that Robert Cockett be retained on the ranch till Friedenberg gets a hold and is able to judge whether he really needs him or not. He will find Cockett's experience, ingenuity and resourcefullness very useful for astart. I plead that if changed, Cockett be treated with consdieration befitting a lengthened and faithful service. That he refused to be bullied in my absense is to his credit though it is prejudicial to him on another quarter. I also plead for other who have grown old in the service, who have played a usedul part in the past, been displaced in the reduction and economies and may easily miss the nitch they might fill under a new and adently efficient young manager eager to make a good showing.

A forest ranger is necessary at this time. The deer, goats and sheep should be kept after at suitable periods till eradicated. Of these expenses the plantation should bear its fair share, including a part of the ranch manager's salary. I doubt if it would be satisfactory to have the plantation superintendant to adminster the forest, as the methods necessary in forest work are more in keeping with the methods of ranch work, and can be more economically handled by the ranch

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manager. Where separation is inapplicable the ranch should be made a fair charge for services such as water provision etc.

G.C. Munro [Courtesy of Irene K. Cockett Perry, Lānaʻi Culture & Heritage Center]

As discussed in Munro's letter above ernest Vredneburg ("Mr. Freidenberg") had been selected to manage the ranch on Lānaʻi. Vredenburg took up residency at the Kōʻele residence. The letter above, along with Munro's reports indicate that there were conflicts between ranch and plantation operations, with notable management issues on the part of H. Bloomfield Brown. Oral history inteviews with a number of elder kamaʻāina on Lānaʻi have shared similar thoughts about Brown's managment style, and in 1935 Brown himself, and several of his camp bosses were dismissed from the plantation, with Dexter "Blue" Fraser taking his place.

Ranch Reports from Ernest Vredenburg

February 17, 1938
Annual Report of the Lanai Company, Limited for the Calendar Year – 1937
Prepared by Ernest Vredenburg, Manager
To the Directors of Lanai Company, Limited
…The weather prior to the month of June was very good. We had very little rain from June until October when fall rains set in. Good rains continued through to the end of the year. With the heavy rains of last fall and of the first five months of the year there was ample feed to carry us through the dry months.

The keawe [kiawe] bean crop this year began late and we did not have as good a crop as in the previous years. There was plenty of feed though, and when the fall rains commenced in October the feed grew very fast. The year ended with our pasture in excellent condition…

Purchasing and Breeding of Livestock
Sixteen purebred Poll Hereford bulls were purchased from W.H. Shipman, Limited for $2,850.00. This completes the purchase of twenty-one bulls recommended in my report of August 8, 1935. Unfortunately, while unloading the bulls at Kaumalapau one fell on the wharf and later died from internal injuries. There were 700 breeding cows in the hear this year and the calf crop was 495 plus an additional 59 calves from the Waialua herd, which made a total of 554 calves…

Beef prices continued high throughout the year 1937. A total of 79 head of cattle was sold to the Oahu Railway and land Company in 1937, averaging 443.227 pounds each at .1672 per pound, or $74.124 per head. We received $5,855.82 for beef sold to the Oahu Railway and Land Company during the year.

Of the 79 head, 17 steers were from the original lot of 74 steers from the pigeon pea area that were taken to Waialua. These averaged 539.46 pounds each at .1859 per pound or $100.30 per head. A total of $1,705.10 for the 17 head. The other 62 head were all cattle purchased from Waialua. There were 14 steers, 27 cows, 18 heifers and 3 bulls, all sold at an average of $66.947 each, or a total of

$4,150.72 for the 62 head… The local market used a total of 325 head averaging 498.28 pounds each at .1618 per pound, or $80.665 per head…

During the year 349 pigs were sold for a total of $11,972.39. Of the total number of pigs sold, 257 were slaughtered and sold as dressed pork, and the balance of 92 head were sold alive. The dressed pork amounted to 44,341 pounds, or an average of 172.5 pounds per pig at .2427 per pound, or $41.88 per head. We received a total of $10,763.44 for the 257 head.

Personnel
The number of employees, including the Manager, averaged 40 throughout the year. Twenty of this number were borrowed men from the plantation. Effective as of June 1, 1937, the base rate of the Ranch regular employees was adjusted from $2.00 to $2.50 per day.

Work Completed
Fences & Pens. A new fence was built along the Keomoku road costing $737.53 or $12.47 under the estimate. This fence is approximately one and a half miles long and was built of American fencing (Netwire) and keawe [kiawe] posts. It was completed in July 1937.

A new fence was built along the power line to Maunalei Gulch, costing $728.61, or $21.39 under the estimate. The fence is approximately one and a half miles long and was built of No. 7 smooth wire and keawe [kiawe] posts and some redwood posts. It was completed in November 1937.

Approximately 10 miles of fence lines were repaired and put into good conditions, using all No. 7 smooth wire with some old posts and some new keawe [kiawe] posts at a cost of $3,216.33.

Water System. The four new windmills started in August 1936 and completed in December 1937, cost $1,164.18, or $35.82 under the estimate.

The seven water holes were started in August and completed in November 1937 costing $988.52, or $288.52 over the estimate.

The nine new tanks on the Keomoku water system were started in August 1936 and completed in December 1937, and cost 41,508.79, or $66.21 under the estimate.

This completes the Keomoku water system as outline in my report of August 8, 1935. Repairing windmills cost $243.19, concrete water toughs $1,186.71. These two jobs were completed in 1936. New windmills cost $1,164.18, Waterholes $988.52, and New Tanks $1,508.79, or a total of $5,091.39. This was $508.61 under the estimate…

Wiring of Ranch Camp
The wiring and the installing of electric lights throughout the Ranch Camp was completed in November at a cost of $660.72, or $39.25 under the estimate.

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Pasture Cultivation
In April $501.00 was received from the U.S. Agricultural Adjustment Administration for the planting of 167 acres of grass in 1936.

During November the flat East of the flat planted last year was harrowed and planted to Rhodes and Guinea grass seed. This area is 75.5 acres. We hope to receive $226.50 in return from the Government. 645 pounds of Rhodes and Guinea grass seed costing $212.39 was sown on this area. The total cost of this job including tractor and labor was $341.97. It was estimated that this area was about 70 acres and would cost $328.00.

Forestation
During the year 300 trees of various types were planted, 150 being planted in the forest reserve, 50 around headquarters, and 100 on the drylands for cattle shade.

Noxious Weeds
$519.80 was spent on the eradication of noxious weeds during the year. Pamakani, guava and lantana were dug up in various places…

Dividend
At a Board of Directors meeting of the Lanai Company, Limited, held on December 28, 1937, it was approved that a dividend of $10,000.00 be paid. This dividend was paid on December 30, 1937.

Respectfully submitted,
Ernest C. Vredenburg, Manager.
Lanai Company, Limited [page 4]

In 1938, the 5.92 acres of lands underlying the Lānaʻi Ranch were surveyed with locations of existing ranch features at the time (Figure 18).

March 8, 1943
Hawaiian Pineapple Company, Limited Ranch Department Progress Report
Prepared by Ernest Vredenburg
To the President and Directors of the Hawaiian Pineapple Company, Ltd.:

Weather and Consequent Feed
During the month of January we had very good rains all of the Island and the ranch rain gauges registered as follows:

Lanai Hale 12.36
Koele 18.37
Malauea 16.25
Palikaholo 14.51
Kamoku 10.64
Kanepuu 15.85
Wawaeku 11.16 and
Keomoku 12.06

During February we had very little rain. The rain gauges registered as follows:
Lanai Hale 2.97
Koele 2.66
Malauea .10
Wawaeku .90 and
Keomoku .24

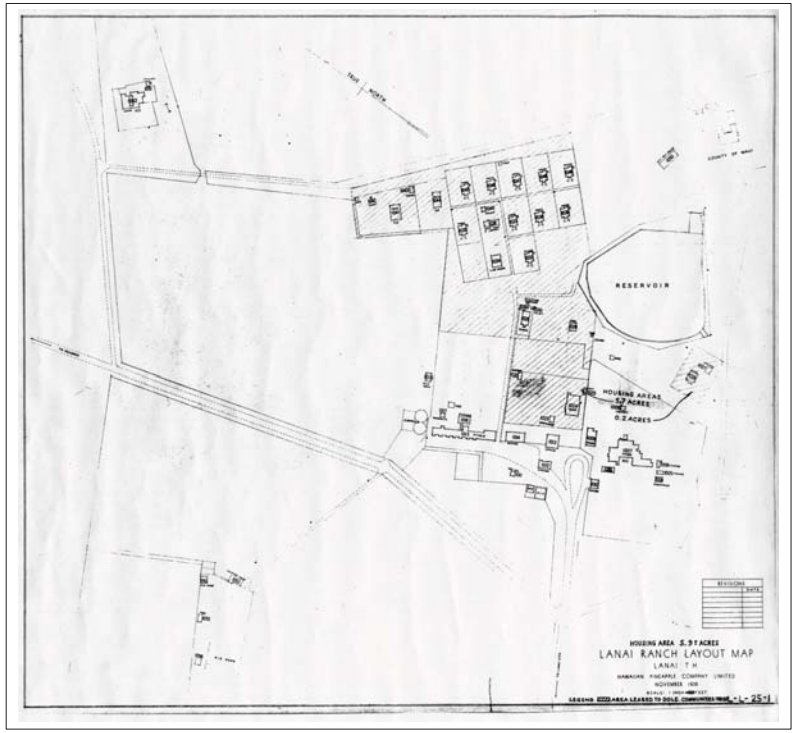

Figure 18. Lanai Ranch Layout Map, November 1938.
HAPCo Collection (Lānaʻi Culture & Heritage Center)

The pastures are in excellent condition. Though during the latter part of February we had some very windy days, fortunately it did not dry up the feed.

Cattle
The cattle as a whole are looking very good.

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During the latter part of February we commenced turning some of the bulls out with the breeding cows. During these two months we slaughtered 85 head, amounting to 38,577 pounds, which sold for $8,872.71.

There were four head of Lanai steers sold by the Oahu Ranch Department in December. The Lanai Ranch Department's share was $199.73.

Pigs
The pigs are doing very well and the whole herd looks good.

There were 82 pigs slaughtered during these two months, amounting to 16,630 pounds, which sold for 45,654.20.

Hides
We received in February a credit of $510.00 for 66 hides we shipped away in November 1942. These hides brought 15 cents a pound, which is the top price.

On February 3rd, we made another shipment of 123 hides.

Fencing
Considerable work has been done during this period on the new fence surrounding the pineapple field on Waikeakua Bench. This job is not completed but will be in the near future.

General
During these two months' work has been done on the repairing of fences, water-lines and roads and trails. Work has also been done in the eradication of noxious weeds and other general ranch work.

Respectfully submitted,
Ernest Vredenburg, manger
Lanai Ranch Department.
[UHM - 1943_03_08_Dole_Coll_C1Dr4Fldr24_LanaiRanch_Report]

June 6, 1944
Hawaiian Pineapple Company, Limited Ranch Department Progress Report
Prepared by Ernest Vredenburg
To the President and Directors of the Hawaiian Pineapple Company, Ltd.
Progress Report – March, April and May, 1944

Weather and Consequent Feed:
During the month of March, we had good rains all over the island. During April and May, we had very little rain. Fortunately, we did not have much windy weather during the latter two months.

The year ended with the pastures in very good condition. The ranch rain gauges registered as follows:

	March	April	May
Koele	12.84	0.73	0.81
Lanai Hale	7.95	0.92	0.29
Malauea	6.80	0.09	0.47
Palikaholo	4.35	0.10	1.26
Kamoku	5.64	0.12	0.68
Kanepuu	5.27	0.21	0.60
Wawaeku	7.05	0.05	0.00
Keomoku	8.88	0.00	0.00

Cattle
The cattle as a whole are looking very good. As of May 31st, we had 1,200 breeding cows and the calf drop was 704 head. The calves are out of a thousand cows… [Figure 19]

Figure 19. Parker Ranch Bulls at the Kōʻele Holding Pen
1944_06_06, UHM Dole Coll C1 Dr4 Fldr24, Lanai Ranch Report Photo 1

For this period, we slaughtered 176 head, amounting to 74,373 pounds which sold for $15,788.22. [UHM - 1944_06_06_Dole_Coll_C1Dr4Fldr24 Lanai Ranch, Report]

March 9, 1945
Hawaiian Pineapple Company, Limited Ranch Department Progress Report for December 1944, and January and February 1945
Prepared by Ernest Vredenburg
To the President and Directors of the Hawaiian Pineapple Company, Ltd.

Weather and Consequent Feed:
During these three months, we had very little rain. The pastures are very dry. The ranch rain gauges registered as follows:

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	December	January	February
Koele	2.05	0.27	0.92
Lanai Hale	2.25	0.82	0.85
Malauea	1.70	0.00	0.46
Palikaholo	1.23	0.00	0.31
Kamoku	1.31	0.01	0.24
Kanepuu	1.84	0.17	0.67
Wawaeku	1.05	0.00	0.00
Keomoku	1.81	0.00	0.00

Cattle
During this period, most of the cattle on the Keomoku side of the island were moved to the Southwest and West side of the island. The cattle that are being fattened for market and all the young stock are making very slow progress due to the drought.

Pigs
The pigs are doing very well. For these three months, we slaughtered 159 pigs amounting to 30,470 pounds, which sold for $8,745.67.
On the morning of December 1st, the piggery boiler house caught on fire. All of the wooden framework was burnt, but not enough to collapse the building. None of the buildings of the pig pens were damaged. The boiler was not damaged, but the pressure gauge on the boiler was ruined. The pumps were not damaged…

Hides
We received a credit of $1,178.30 in February for the 174 bundles of cow hides shipped to the mainland pm November 4th. We made another shipment of 80 hides on December 14th, for which we have not received credit yet. We have on hand at present 200 hides awaiting shipment.

Honey and Wax Sales
We received in December a credit for $571.70 for the 41 cases of honey we shipped to the mainland in September. This honey amounted to 5,105.5 pounds which sold for 11.2 cents per pound. In December, we also received a credit of $43.80 for 146 pounds of beeswax sold to the Candy Department.

In February, we shipped 15 cases of honey. This honey, amounting to 1800 pounds, was sold to Loves' Bakery in Honolulu for 1.5 cents per pound, which amounted to $189.00.

General
During the period, besides handling cattle, work has been done on the repairing of fences and water lines and general ranch work.

Respectfully submitted,
E.C. Vredenburg
Ranch Manager, Lanai. [UHM - 1945_03_09, Dole Coll. C1 Dr4 Fldr24 Lanai Ranch Report]

June 5, 1945
Hawaiian Pineapple Company, Limited Ranch Department Progress Report for March, April and May 1945
Prepared by Ernest Vredenburg
To the President and Directors of the Hawaiian Pineapple Company, Ltd.

To the President and directors of the Hawaiian Pineapple Company, Limited:
Progress Report for March, April and May, 1945

Weather and Consequent Feed
March was a very dry month. Through the month of April we had excellent rains all over the island. During the month of May we had a little rain. At the end of May the pastures were in very good conditions. The ranch rain gauges registered as follows:

	March	April	May
Koele	1.42	20.00	2.05
Lanai Hale	2.04	9.34	1.55
Malauea	0.57	7.38	0.85
Palikaholo	0.20	7.02	1.07
Kamoku	0.96	8.60	1.85
Kanepuu	0.57	10.69	0.87
Wawaeku	0.00	7.20	.20
Keomoku	0.00	7.80	0.46

Cattle
The cattle as a whole are looking fair. The breeding cows that have little calves are suffering the most. The drought and the sudden rains of April were too much for some of the poor cows to stand. There were 26 cows reported dead during this period…

The picture [Figure 20] shows some of the breeding cows…

Figure 20.
Breeding Stock at the Kōʻele Pen, June 5, 1945
UHM Dole Collection C1 Dr4 Fldr24 Lanai Ranch Report

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Due to the drought, we are very short of marketable cattle. Early in May we tried to get some outside beef so that we could stop slaughtering, but found it impossible to get any outside meat. Therefore, we continued slaughtering, but had to cut down…

Pasture Cultivation
In April we scattered 1,000 pounds of Guinea grass seed on various places on the ranch. We also planted about seven acres of Kikuyu grass. The picture… shows men planting grass. [Figure 21]

Figure 21.
Men Planting grass in Kōʻele Pasture (Pohoʻula Hill in background), June 5, 1945 (UHM Dole Collection C1 Dr4 Fldr24 Lanai Ranch Report)

Hammer Mill
The Hammer Mill which was ordered in July, 1943 finally arrived in December of 1944. An engine from a Farmall was fixed up to operate this Mill. The Mill was put into operation in April. It is being used to grind keawe beans. This keawe bean meal is used as cattle fattening feed.

General
During this period, besides handling cattle, work has been done on the repairing of fences and waterlines, and general ranch work.

Respectfully submitted,
E.C. Vredenburg
Ranch Manager, Lanai.
[UHM - 1945_06_05_Dole_Coll_C1Dr4Fldr24_LanaiRanch_Report]

June 9, 1947
Hawaiian Pineapple Company, Limited Ranch Department Progress Report
Prepared by Ernest Vredenburg
To the President and Directors of the Hawaiian Pineapple Company, Ltd.
(Updates and Construction of New Quonset Huts at Koele)

Progress Report for April, May and June 1947

Weather and Consequent Feed
During this period, we had some good rains. Most of it fell during the month of March. There was not much rain during April and May. Fortunately, we did not have many days with high winds.

Although as of the end of May the lowland pastures looked dry, there is plenty of feed. Since the middle of May we have had some keawe [kiawe] beans. This year the keawe crop is starting about two months ahead of its normal time. The ranch rain gauges registered as follows:

	March	5-yr Average	April	5-yr average	May	5-yr Average
Koele	4.43	4.22	1.37	4.91	2.08	3.30
Lanai Hale	4.87	3.67	1.42	3.20	2.70	2.73
Malauea	0.34	1.82	0.09	1.62	0.00	1.05
Palikaholo	0.25	1.26	0.17	1.59	0.22	1.48
Kamoku	1.58	1.92	0.82	1.98	0.68	2.16
Kanepuu	2.31	2.02	0.79	2.46	1.10	2.04
Wawaeku	1.20	1.80	0.00	1.45	0.00	0.55
Keomoku	0.82	1.99	0.00	1.56	0.00	0.47
Mahana	1.38	2.40	0.07	1.59	0.40	1.43

Cattle
The cattle, as a whole, are in good condition. The marketable cattle are picking up fast. During this period we have been slaughtering cattle with weights around 400 to 450 pounds, as compared to 350 to 380 pounds in the past. The bulls were turned out with the cows in March. The picture below

Goats
During these three months, we killed 41 goats.

Quonsets
Two 40 x 100 Quonset buildings were put up at ranch headquarters during May. One will be used as a general storage building, and the other as a garage. The pictures below show these buildings in construction [Figures 22 & 23]:

General
Besides handling cattle, work has been done on repairing of fences and water lines, as well as general ranch work during this period.

Respectfully submitted,
E.C. Vredenburg
Ranch Manager, Lanai

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[UHM - 1947_09_09_Dole_Coll_C1Dr4Fldr24_LanaiRanch_Report]

Figure 22. Installation of the Military Surplus Quonset Huts at the Kōʻele Ranch Headquarters, June 9, 1947 (UHM Dole Collection C1 Dr4 Fldr24 Lanai Ranch Report)

Figure 23. Installation of the Military Surplus Quonset Huts at the Kōʻele Ranch Headquarters, June 9, 1947 (UHM Dole Collection C1 Dr4 Fldr24 Lanai Ranch Report)

In 1947, Vredenburg also had a map of the Lanai Ranch Paddocks prepared, showing paddocks around the island. Figure 24 provides details of the region around Kōʻele.

Figure 24. Portion of Lanai Ranch Company Paddock Map (1947) Outlining Kōʻele and Adjoining Paddocks – No.s 26 & 27 Identify the Paddocks Around Headquarters, with Pineapple Fields below the Headquarters (Lānaʻi Culture & Heritage Center Collection)

Ranch Operations at Kōʻele Closed in 1951

As a result of the culling of HAPCo and Ranch records over the last 40 years there are many gaps in the documentation. Little information from the ranch betweend 1948 to 1951 has been located to date. The ranch operated on some 50,000 acres of land, extending from the shore to the 2,000 ft. elevation. The Kōʻele headquarters was comprised of more than 30 buildings, constructed between 1875 to 1948. The May 1950 issue of Hawaii Farm and Home Magazine published an aerial photo of the Kōʻele facilities (Figure 25). In the May 1950 issue of Pine Parade, the Hawaiian Pineapple Company announced that it would close the ranch and associated piggery operation. Figure 26, from late 1950 depicts one of the last roundups of cattle in the Kōʻele pens, in preparation for shipping from Kaumālapaʻu.

> **Lanai Ranch To Be Discontinued**
> The company announced, on April 4, that it will discontinue all activities carried on by its Lanai Ranch and dispose of its livestock within the next six months.

REF-278

Every effort will be made to provide work opportunity for employees presently working on the ranch, although the character of the ranch jobs is such that some of the workers such as the cowboys might not want to change their occupations for plantation work, and would rather leave Lanai. The ranch is being discontinued in line with the company's policy of concentrating on operations directly connected with the growing, canning and selling of DOLE products.

Moreover, operation of the ranch has been in conflict with the company's land conservation program on Lanai, because grazing during periods of drought had resulted in harmful soil exposure and erosion. Also, it is now possible to get enough meat supplies, along with other foods and supplies, by means of the barges which serve Lanai.

The piggery livestock and facilities now part of the ranch, will be sold as a unit, if there are individuals on Lanai who wish to take them over and run them as a private business. [Pine Parade, May 1950:3]

Figure 25. Aerial View of the Kōʻele Ranch Complex, Comprising more than 30 Buildings (Hawaii Farm and Home Magazine May 1950:26) Several notable features such as the Norfolk Pine, Ka Lōkāhi Church, the entry row of Cook Island Pines (Planted in 1923), the Kōʻele Reservoir, and other facilities are all visible (Lānaʻi Culture & Heritage Center Collection)

Figure 26. Kimo Roberts, Junior Kaopuiki, Sam Kanahele and John Richardson Separating Cattle for delivery to Kaumālapaʻu Harbor and Honolulu Market. In background (left) home of John & Hannah Kauila Richardson (former Kōʻele School House) HAPCo Collection, 1950 (Lānaʻi Culture & Heritage Center Collection)

The ranch operation was formally closed in late 1950, with only a few wild cattle remaining in the field until 1951 (Figure 27). During the years that the plantation operated the ranch, nearly all of the beef and pork eaten on Lānaʻi was raised on island. Additional on-hoof livestock and other sundry products were also shipped to Honolulu for processing and sale.

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Figure 27. Last Round Up… After 28 Years, Lanai Ranch Discontinued August 1950 (Lānaʻi Culture & Heritage Center Collection)

Other Land Use and Facilities at Kōʻele

In addition to the ranch operations—including office, storage, reservoirs and water systems, paddocks and residences—a few notable activities were also a part of the Kōʻele operation. Among these activities were the development of the Hawaiian Church, Ka Lōkāhi o ka Mālamalama, the Kōʻele Airfield, the Community Golf Course; and later the proposed demolition of the last two ranch homes. Selected historical descriptions of these developments at Kōʻele follow below.

Ka Lōkāhi o ka Mālamalama Church

In the early 1900s, a majority of the Hawaiian families remaining on Lānaʻi lived primarily along the Keōmoku coast, with a few permanent native residents at Kōʻele and in Pālāwai Basin. In the first few years of the 1900s, members of a Hawaiian church, under the name of Hoʻomana Naʻauao, with a base office on Oʻahu, and branches on most major islands in the Territory, built up a following among Lānaʻi natives. In 1903, church members from Molokaʻi, Maui and Oʻahu came together to help the Lānaʻi families build Ka Lanakila o ka Mālamalama Church at Keōmoku Village—dedicated on October 4, 1903.

Following Dole's purchase of Lānaʻi, and establishment of the pineapple plantation, most of the Keōmoku region families moved to the uplands to work out of Kōʻele or on the plantation. With many of the families residing in the uplands, Sunday travel to Keōmoku was becoming a hardship. In early 1930, the Hawaiian residents of Kōʻele reached an agreement with George Munro and the Hawaiian Pineapple Company to construct the little church at Kōʻele, which on March 16th, 1930, was as Ka Lōkāhi o ka Mālamalama. The church came under the leadership of Robert E. and Rose Kahikiwawe Cockett (Figure 28).

Figure 28. Reverends Robert E. And Rose Kahikiwawe Cockett and off-island visitors at Ka Lōkāhi Church in ca. 1935 (Gay Family Collection, Lānaʻi Culture & Heritage Center)

The April 1949 issue of HAPCo's Pine Parade included an article describing Churches on Lānaʻi. Both Ka Lanikila and Ka Lōkāhi are described in the article.

The article also featuered a photograph of Ka Lōkāhi, Reverend Robert Cockett and several congreration members (Figure 29).

> The oldest of the churches in Hawaiian, Ka Lanakila o ka Malamalama at Keomoku, which was dedicated in 1903. Its present pastor, Reverend Jamed Kaila, was working on the Ranch when HAPCo came to Lanai in 1922, and continued working with Hawaiian Pine until 1948.
>
> Reverend Robert Cockett is pastor of ka Lokahi o ka Malamalama, the other Hawaiian church, lcoated at Koele, the present ranch residence area. This church was dedicated in 1930, and is the one pictured... Reverend Cockett was a HAPCo employee form the time Hawaiian Pine acquired Lanai until his retirement in 1948, and for of his children are now living on Lanai. Hawaiian is still used for the services, but english translation is made whenever visitors are present. [Pine Parade, April 1949:4]

In the 1960s, leadership of the church fell to Reverend Mary Cockett Kalawaiʻa, one of the elder daughters of the Cocketts. In the 1980s, when resort development at Kōʻele became a topic of planning issues, the community advocated for protection of the church and continuance of services at Ka Lōkāhi.

REF-280

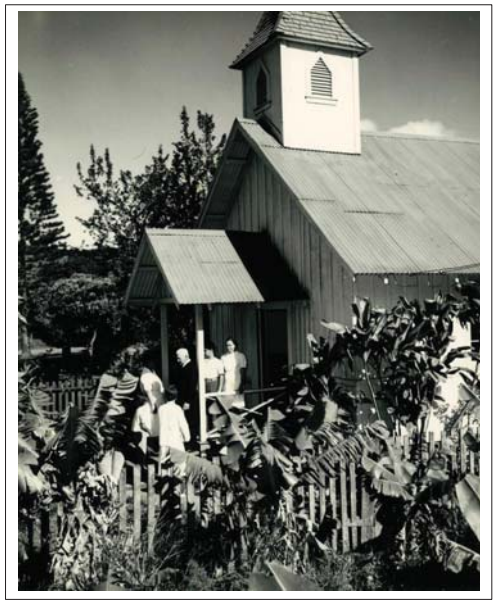

Figure 29. Ka Lōkāhi Church Members on Front Porch of Church, 1949 (Richard Fuller Colelction, Lānaʻi Culture & Heritage Center)

Reverend Mary Cockett Kalawaiʻa passed away on February 15, 1990. Her younger sister, Irene Kamāhuialani Cockett Perry continued her advocacy for the church at Kōʻele. The church was relocated from its original site (which became the resort pool and gym), and was relocated to its present location at the front of the Lodge at Kōʻele. The promise of restoration of the church hall fell short, but in 2015, a new facility was constructed to more closely fit the needs of the congregation. At the present time, Kupuna Irene Kamāhuialani Cockett Perry is a few weeks shy of 100 years old, and is still active in the church. Her son-in-law, Kahu (Reverend) J. Keola Freitas serves as the minister, and her daughters Moana Perry Freitas (Church secretary and song leader), and Momi Perry Suzuki (Director) serve the church congregation.

Ka Lokahi is a part of Lānaʻi's historic landscape. It was built by and for the families of Lana'i. The name Ka Lokahi (As one, or unified), was given by Rose Kahikiwawe Cockett, mother Kupuna, Aunty Irene Perry. The Bible verse which inspired Rev. Rose Cockett to name Ka Lokahi is found in Roma (Romans), Chapter 15, Verse 6:

> I hoonani aku oukou me ka lokahi o ka manao, a me ka leo hookahi i ke Akua, i ka Makua hoi o ko kakou Haku o Iesu Kristo.
>
> That ye may with one mind and one mouth glorify God, even the Father of our Lord Jesus Christ.

Selected historical records from the Church journals, plantation era and resort development are cited below to provide readers with an overview of the history of Ka Lōkāhi, and it's families. The first page of the Ka Lokahi Church journals tell us:

> **Moolelo Ekalesia o Ka Lokahi.**
> Ua kukulu ia ka Luakini o Ka Lokahi o ka Malamalama iloko o Feb. Hoolaa ia no Iehova iloko o March 16, 1930.

Ona paia o keia Luakini, ua makana i mai e ka Hawaiian Pine. Elua kukui lewalewa huihui me na noho a ke kuahu he makana na Haw. Pine Co.

Buke Paipala nui, me na buke Paipalaliilii, na buke himeni, veleveka hehi wawae a me ka uhi no ke kuahu, manawalea ia mai e Rev. Pleasant, 1 kukui manawalea na G.C. Munro.

Ma ka Mahina o Oct. 22, 1932, ua huipu maila o Rev. J.J. Mathews me na hoahanau o ka Lokahi.

Na Hana.
Hoolaa hou i na hoahanau apau, hoolaa ia ka Luakini ame kona kahua. Bapetizo ia na hoahanau apau.

Na Hana Iune 16, 1932.
Poni ia na keiki o ka Aha. Robert E. Cockett, James Kauila ame Rose Cockett. Wae ia ke Kahukihapai oia o Rev. Robert E. Cockett, Poni ia a hoonoho ia ma kona noho.

Ma keia la i bapetizo iai 1 makuahine Alma Kim, hookahi opio wahine Hannah Kauila, elima opio kane, Lloyd Cockett, Gabriel Kalua, Ben Kahaleanu, Jeremiah Kaopuiki a me Joe Keliihananui. Hoopomaikai ia he hookahi opio kane…

Ka Lokahi Church History
The Church, Ka Lokahi o ka Malamalama was built in Feb. and Dedicated to Jehovah in March 16, 1930.

The walls of this Church were a gift of Hawaiian Pine. Two chandelier lights, the seats and the altar were also a gift of Haw. Pine Co.

The large Bible and little bibles, the hymnals, the rug and the cover for the altar were donated by Rev. Pleasant, 1 light was donated by G.C. Munro.

In the month of Oct. 22, 1932, Rev. J.J. Mathews joined together with the brethren at Ka Lokahi.

Work done.

All the brethren were again dedicated, along with the dedication of the Church and its lot. All the brethren were baptized.

Work done on June 16, 1932.

The children of the Assembly were ordained. Robert E. Cockett, James Kauila and Rose Cockett. Robert E. Cockett was selected as the pastor of the congregation, and he assumed his position.

On this day there were baptized 1 mother, Alma Kim; 1 girl, Hannah Kauila; five young men, Lloyd Cockett, Gabriel Kalua, Ben Kahaleanu, Jeremiah Kaopuiki

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and Joe Keliihananui. One young man was also blessed… [translator, Kepā Maly]

From 1930 until the late 1980s, Ka Lōkāhi (Figure 30), provided almost uninterrupted service to families of Lānaʻi. Breaks included times when elder Kupuna and church leaders passed away, and when the community advocated with Castle & Cooke to relocate and restore the church during construction of the Lodge at Kōʻele.

Figure 30. Ka Lōkāhi Church and the Social Hall at Their Original Site in ca. 1980 Phyllis Mcomber Collection (Lānaʻi Culture & Heritage Center)

With development on the horizon at Kōʻele, Irene Perry reached out to Castle & Cooke representatives to facilitate protection of Ka Lōkāhi. On November 24, 1986, Irene Perry met with Riki Hokama, Property Management Coordinator for "Koele Company." Hokama summarized the meeting in the follow letter:

> **November 24, 1986…**
> This letter is a follow-up of the conversation we had on November 24, regarding the relocation of the Koele Church. We briefly discussed the steps necessary to implement such a project (i.e. assess structural stability, site preparation, actual moving, public hearing, general renovation, etc.) on special use permit.
>
> You have offered to assist us in contacting the church's representative located on the Big Island and to also discuss with Paster [Pastor] Mary Kalawaia of Lanai the plans by December 12, 1986 with us.
>
> Your concern regarding the property maintenance will more the likely be taken care of by the hotel ground crew.

> We will further look into the possibilities of having restroom facilities on the church premises.
>
> I thank you for participating and donating your time regarding this important matter… [Irene K. Cockett Perry Collection, Lānaʻi Culture & Heritage Center]
>
> **January 22, 1987 (pages 1-3)**
> **Lanai Advisory Committee**
> **Public Hearing**
>
> 1. Land Use Commission Special Use Permit Application by Lanai Co., Inc., for the relocation of a church and associated uses in the State Rural District, TMK 4-9-02:1, Koele, Lanai (SUP/87-1)
>
> …Mr. Alboro asked how the church services will be held without infrastructure services.
>
> The applicant was represented by Mr. Riki Hokama. Mr. Hokama responded by mentioning that technical consideration will have to be looked at before infrastructural provision can be considered. Water is intended to be provided but is subject to engineering conditions. Other service will be considered.
>
> Mrs. [E.] Kaopuiki expressed concern as to whether the members want to be relocated.
>
> Mr. R. Hokama responded by saying that the applicant had met with Mrs. Perry, Mrs. Kaluwaia [Kalawaia] and Reverend Kamoka [Kamoku] (of Hawaiʻi Island). The applicants intent was to preserve the church and put it in a more prominent area.
>
> Mr. Kapoiki [Kaopuiki] asked the applicant's representative if they had asked the membership in the knowledge that it would be moved and if the subject permit was not granted if the church would remain.
>
> Mr. Murashige indicated that the future of the church is its current location is a private matter between the church and the applicant.
>
> Mrs. Kaopuiki indicated that she had spoken to the minister about the relocation. She further indicated that after her discussion, she is here to encourage the membership to resist the move.
>
> Mr. S. Hokama opened the hearing to the public.
>
> Mrs. Perry (Public): She indicated that her family and a few others did not want the church to move. In discussions with Mr. Murdock (Castle and Cook[e]) to relocate the church, he indicated he wanted to move the church. She said that Mr. Hokama would repair the parts of the church which require it after the move. The applicant didn't indicate if water, toilet, and electricity will be provided. Mrs. Perry also indicated that services are held almost every Sunday and would like to have water, toilets and light upon relocation or opposes the move.

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Mrs. Kaopuiki indicated her opposition to the church as she is a member of the church. But if it occurs, she wants all improvements.

Mr. Alboro asked about the Department of Public Works comment on mitigating runoff on adjacent and downstream properties and how the applicant will address this.

Mr. R. Hokama indicated that their engineers are working on this.

Mrs. Perry said although the church doesn't own the property and a move is made, Castle and Cook[e] better put in all the improvements.

Mr. R. Hokama said the church move will be done by a contractor on a truck with shoring and move the building to the new site without affecting the structural aspect of the church.

Mr. S. Hokama inquired on the other building shown in the picture.

Mr. R. Hokama said it was a hall and is not part of the relocation.

Mrs. Castillo asked Mrs. Perry what the hall is used for.

Mrs. Perry said it was utilized for some functions but is in bad shape.

Mrs. Castillo asked if she would agree to the move of the church if a similar hall is constructed at the new site and is agreed to such an arrangement.

Mrs. Perry affirmed.

Mr. R. Hokama mentioned that a reference point for the church relocation the existing banyan tree, of which the church will front.

Mr. Oyama asked about the difficulty of providing water.

Mr . R. Hokama did not confirm or deny.

Mrs . Perry asked why the proposed parking lot is so far away as it will be inconvient [sp.] during rain showers .

Mr. R. Hokama indicated it was about 100 feet away.

Mrs. Perry indicated that it should be closer to the church.

Mr. S. Hokama felt that consideration to either moving the hall or constructing a new hall.

Mrs. Castillo supported Mr. S. Hokama's position and added that the hall functions as part of the church.

Mr. R. Hokama indicated that the applicants engineer found the building unsound to move.

Mrs. Koapuiki [Kaopuiki] told Mrs. Perry to ask for the hall to be situated with the church and then they should consider to let the applicant to move the church.

Mrs. Perry told the committee that if the church is moved the membership wants everything, water, restroom, hall and electricity.

Mrs. Perry further indicated that the existing church site has an outhouse since the church was built in 1930 .

Mr . S. Hokama asked what would happen if the permit was not granted.

Mr. R. Hokama indicated that it would be hard to guess, but at worst would involve demolition of the church.

Mrs. Perry asked for a new location but couldn't specify where or why a new site should be closer.

Mr. Alboro said consideration should be given to providing services, drainage, and a closer parking lot.

Mr. Kahoohalahala felt that the church is a living church of which the parish hall is a part of. Not only should it be located in a nice setting, but should be functional. The concerns of the members should be foremost. To retain the history and charm of the church it should be a living church.

Mr. R. Hokama requested clarification of the processing of this permit application.

Mr. Murashige said the recommendation of the committee would be transmitted to the Planning Commission but no commission action can be expected prior to February 17, 1987.

Mr. S . Hokama closed the public hearing.
The meeting was adjourned at 8:30 p.m. [Irene K. Cockett Perry Collection, Lānaʻi Culture & Heritage Center]

February 9, 1987 (page 1-5)
Shiro Hokama, Chairman, Lanai Advisory Committee, to
Joseph Ventura, Chairman, Maui Planning Commission

…Subject: Land Use Commission Special Use Permit Application by Lanai Company, Inc., for the relocation of a church and associated uses in the State Rural District, TMK 4-9-02:1, Koele, Lanai. (SUP/87-1)

At its meeting of January 22, 1987, the Lanai Advisory Committee to the Maui Planning Commission held a public hearing on the above referenced Land Use Commission Special Use Permit at the Lanai School Library.

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The request involves relocating an existing church into the Rural District along with establishing a parking lot for the church.

The subject 3-acre site is located approximately three-fourths of a mile NNE of Lanai City in an area known as Koele. This flat site straddles and existing semi-improved road which connects Lanai City to the site.

The church in question is currently located several hundred yards to the east of the project site. It is a single story wooden structure of simple design. It features 700 square foot of floor area and has a corrugated iron gable entry. Historically, Kalokahi oka Malamalama Church is the oldest remaining church on the island. A service is almost every Sunday during day light hours. Other special services may be held but will be infrequent at best.

The church is currently situated where the proposed Koele Hotel site is defined on the Koele Project District Zoning Map, its relocation is proposed to be situated at the new site and continue its function of periodic services. Continuance of the serene setting is an integral point of this relocation.

Access will continue to be from Keomoku Highway. The parking area will be located approximately 100 feet north of the relocated church. Twelve parking stalls are to be provided.

The applicant is to provide water service to the site.

During the public hearing, two people testified regarding the subject proposal. The major points of discussion are as follows:

1. Utilities including water, solid waste disposal, and electricity should be provided to the new site.

2. The social hall should be reconstructed as part of the church facility.

3. The proposed parking lot should be closer to the / church due to the age of the congregation.

Also, in reviewing the project, the committee found the following:

1. The relocation of an existing church and the establishment of an associated parking lot is not contrary to the objectives sought to be accomplished by the State Land Use Law and Regulations.

2. The church and its parking lot is not anticipated to affect surrounding properties. The church will be incorporated with surrounding use, both current and future, rather than being an isolated, unoriented structure in the planned Koele Project District.

   The applicant intends to incorporate the church site as part of the Koele Hotel (Proposed site design and orientation.)

3. The applicant will be responsible to provide improvements to roads, and drainage systems.

4. As the existing church is located in an urban district and has historic value as a continuing part in that [it] links their past to the present, preserving this structure should be encouraged.

   While a permitted use in the State Rural District is the “retention, restoration, rehabilitation or improvement of building or sites of historic or scenic interest,” the request involves the relocation of an existing structure which would be otherwise lost. Furthermore, the church was in a rural like setting which is planned for development. Hence, said request can be considered an unusual and reasonable use.

5. The site is suited for uses permitted in the State Rural District. However, as mentioned previously, the existing church is in a rural like setting and would not be a deterrent to the uses allowed in a rural district of it is relocated.

   The Special Use Permit area should be reduced in size to more accurately reflect the actual use area.

   Due to the limited use of the church parking lot for actual church functions, its use as part of the proposed hotel and connection therewith is a compatible and logical used.

   The Lanai Community Plan calls for the recognition of the importance of historical sites and encourages their preservation. As the proposal to retain the original structure in a similar setting is a significant commitment towards historic preservation and acknowledgement of the cultural significance of the facility for the Island of Lanai.

   Although, the Community Plan calls for the discouraging of Special Use Permits unless; 1) to accommodate public facility uses such as utility installations, landfills and sewage treatment plants whose location is determined by technical considerations; 2) supportive of agricultural uses; or 3) required for the use or distribution of economic resources and not otherwise adversely affecting the environment or surrounding agricultural uses; the subject request is a unique situation where the opportunity exists to preserve part of the cultural fabric which shaped the social emphasis on the island. Such opportunities should be taken as it is a significant contribution to the community and its future generations in under study the roots of this social pattern.

Based on the aforementioned findings, and public hearing testimony, the Lanai Advisory Committee to the Maui Planning Commission respectfully recommends approval of the subject request with the following conditions:

1. That the relocation and associated improvements shall be completed within one (1) year from the date of the approval of the subject Land Use Commission Special Use Permit.

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2. That the subject Land Use Commission Special Use Permit shall be valid for a period of five (5) years subject to further extension upon favorable review by the Planning Department.

3. That the subject Land Use Commission Special Use Permit Area shall be redefined to reflect a 1+ acre site with the final delineation subject to Planning Department review and approval.

4. That a Landscape Planting Plan for the parking lot shall be submitted to the Planning Department for review and approval of the subject Land Use Commission Special Use Permit.

5. That full compliance with all applicable governmental requirements shall be rendered.

6. That a social hall shall be constructed as part of the church relocation.

7. That water, restroom, and electrical service shall be provided to the church facility.

8. That the applicant, its successors and assigns, shall defend, indemnify and hold the County of Maui harmless from and against any loss, liability, claim or demand arising out of this permit.

Transmitted for your deliberation are the following:

1. Staff Report dated January 22, 1987.
2. Recommendation memorandum dated January 22, 1987.
3. Site plan.
4. Photo copy of the existing church.

Thank you for your consideration of this matter… Shiro Hokama
[Irene K. Cockett Perry Collection, Lānaʻi Culture & Heritage Center]

Preservation of Two Ranch Homes for the Elder Cowboy Families

In addition to the relocation or even possible demolition of the Ka Lōkāhi Church, other proposals made by David H. Murdock for the Kōʻele area included demolition of the remaining ranch houses, removal of the lone Norfolk Island pine tree, and construction of residences on lands that hosted the plantation-community golf course. Murdocks' proposals were met with alarm and opposition by the community. When her home was in jeopardy, Lānaʻi native Rebecca Kaopuiki Richardson (born 1913) threatened to chain herself to her home when bulldozers were sent to knock it down.

An overview of the attachment that Kōʻele families shared with their landscape was described by Mina Morita, who herself had been raised at Kōʻele (though after the ranching era ended). Growing up, she learned and lived the history of place through Lānaʻi natives like Aunty Rebecca (Becca) Richardson. Excerpts from a letter by Mina Morita—written on August 25, 1988—to the head of Oceanic Properties-Castle & Cooke, specifically mentioned the home of John and Hannah Richardson (John was an elder brother of Ernest Richardson,

husband of Aunty Becca). Morita urged reconsideration of the demolition, respect of the elder cowboy families, and preservation of facets of the ranch community.

…Mr. Bill Mills
Chairman & Chief Executive Officer
Oceanic Properties, Inc.
…I understand that the John and Hannah Richardson residence is scheduled for demolition in several weeks. I strongly urge that careful reconsideration be given because of the significant cultural and historic asset that may be developed through restoration or reconstruction and its use as an interpretive center.

The home of John and Hannah Richardson set back at the base of tall eucalyptus trees, shrouded by the evening's fog or cast golden by the setting sun is the last remnant of pastoral Koele.

Koele's ranching era and its historical association with the growth and development of Lanai is often overshadowed by the history of pineapple. In 1974, in recognition of the area's significance, the Koele District was included in the State of Hawaii's Inventory of Historic Places (HRHP Site 50-40-98-1004).

The listing consisted of three houses and a church which were recommended for Reserve status.

Koele, the headquarters of Lanai Ranch, was once the principal settlement on the island of Lanai until Lanai City was established (c. 1922). It was the location of extensive livestock ranching activities from the 1870's to 1951. Described in 1925 by Chester K. Wentworth, a Bishop Museum Fellow of Yale University, there was 5,000 head of cattle and 200 horses. The island was divided into ten principal grazing tracts each comprising 4,000 to 18,000 acres.

The Koele community had more than 30 buildings, including the ranch manager's house, an office and store, bachelor's quarters, stables, corrals, slaughter house, piggery, blacksmith shop and many residences. However, as the pineapple plantation increased production the ranch settlement slowly declined. Ranching operations ceased in 1951.

A new era now awaits Koele, but its past should not be so easily forgotten. The value of John and Hannah Richardson's home may seem insignificant when compared on a grand scale but when reviewed in the context of Koele, Lanai and ranching in Hawaii it can become a "polished gem" in the interpretation of Koele's history to the public. It is the last tangible evidence with potential for public viewing to depict Koele's past…

The placement of Koele District in the state inventory in 1974, the recommendation to preserve the structures by International Archaeological Research Institute, Inc. in December 1986 and my most recent research with oral interviews reaffirm the significance of these buildings. They are assets which should continue to have historic integrity.

REF-285

The Richardson residence, in its present location, will be a unique opportunity in the State of Hawaii to interpret ranching history. Its historic relevance to Koele can never be duplicated. It is the last tangible evidence for many with ties to the area and it can become an attraction for visitors who wish a better understanding of Hawaii's history and its people's lifestyles.

Before an irreplaceable opportunity is lost through the demolition of the Richardson residence, I ask that the developers of Koele Lodge to please confer with experts on the subject of historic preservation.

Your careful reconsideration to the historic and cultural value of the John and Hannah Richardson home will be greatly appreciated…

Koele School House/John & Hannah Richardson Home [see Figure 25]

The building is a one-story wooden house of board and batten construction. It has a main gable roof and shed extensions on both the front and rear. A full front porch runs along the width of the house, originally the steps went up the front of the house instead of the present side. Remnants of wooden slat architecture run for three bays on the front and continues for two bays along the side. Windows are double hung twelve-light.

The building was originally a one-room school house located southeast of the reservoir, near what is presently the seventh green of the golf course.

It is not clear whether this structure was dismantled at Keomoku and relocated to Koele or if it was constructed new. The building was erected around 1913 under ranch manager George C. Munro as a school for the children of ranch employees. It also served as a meeting/gathering place for the ranch community.

After the establishment of Lanai City and the construction of a larger school near the present golf clubhouse, the school house was dismantled by ranch carpenter, Kawano, and moved to its present location (c. 1922). Additions to the house was made at that time and its first occupant was Kauakahi, the ranch's saddle maker.

After the death of Kauakahi and his family's move to Oahu, the house has since been occupied by John and Hannah Richardson. John was a ranch cowboy until 1951 and Hannah, who was born at Koele and attended school in the building, is the daughter of James Kauila, who was the ranch foreman and minister of the Keomoku church. [Letter from Mina Morita in the collection of Lānaʻi Culture & Heritage Center]

In 1921, Lānaʻi families hosted a gathering at the Kōʻele school house (later, the home of John and Hannah Richardson). Figure 31 is a photograph of the event taken by Kenneth Emory, with residents and guest posing on the front verandah and lawn of the structure. The Photo was copied by Robin Kaye in 1975 with Emory's permission, while he conducted a field visit to Lānaʻi.

Figure 31. Lūʻau at the Kōʻele School House (later becoming the home of John and Hannah Richardson (Kenneth Emory Collection, Courtesy of Robin Kaye – Lānaʻi Culture & Heritage Center)

An agreement was reached between community members and Castle & Cooke. The conditions of this agreement insured the preservation of two historic ranch facilities, as well as a life-interest of residency to both of the elder Richardson families. The home in which the Forbes family lived in the 19-teens and 1920s (once situated in the area of the "Great Hall"), and the former ranch office and store (formerly under the large banyan fronting the lodge), were relocated to their current locations, northwest of the Lodge. The Richardson's lived out their lives in those homes (Forbes/J.&H. Richardson; office-store/E.&R. Richardson).

These two buildings were originally built at Keōmoku as a part of the Maunalei Sugar Company operations and were moved to Kōʻele during the Charles Gay period of ownership in ca. 1904 (oral history interviews with Venus Gay Holt and Richard Munro Towill). The former school house building, where John and Hannah Richardson had lived during the ranch years and later, along with another historic structure, were moved by Castle & Cooke to the area near the 1947 MECO Power Plant. Preservation and adaptive reuse of the buildings for historic-interpretive purposes was never realized, and at the time of writing the buildings are so dilapidated that reports to allow their demolition are currently under review.

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The Kōʻele Airfield

One of the interesting and little-remembered facets of Kōʻele's history is that the original airplane landing field for Lānaʻi was situated a short distance below the Kōʻele Ranch complex. This was in the level area below the current Kōʻele stables and along the northwestern side of Lānaʻi City. As early as 1934, George C. Munro's ranch reports observed that highly valuable pasture land below the ranch headquarters was being wasted for use as a landing field. Little information about the dirt and grass landing strip is currently available, but several photos of the field have survived the passing of time.

Jean Forbes Adams, daughter of Charles and Helen Forbes, was raised at Kōʻele and recalled when the first plane landed at the field in ca. 1926 (Figure 32).

Figure 32. First plane recorded as landing on Lānaʻi, set down in the Kōʻele Pasture. (Courtesy of Charlotte Adams Babcock, daughter of Jean, Forbes Adams)

One of Munro's reports about the Kōʻele Airfield include the following narratives.

> **March 17, 1934**
> **George C. Munro, Manager, Lanai Ranch**
> **To K.B. Barnes and Directors of Lanai Company, Limited**
> **Annual Report of the Lanai Ranch —**
> **Observations and Recommendations 1911 to 1933 (Figure 33)**
>
> **…The Landing Fields [Early Lanai Airplane Landings]**
> This has been surveyed on the flat below Koele. Part, as I mentioned before, of the areas that constituted some of the richest soil on the island. This land is

> equal in richness to a great deal of Palawai basin and it seems a pity to see part of the town and a flying field occupying part of it when the ranch urgently in need of fattening land cannot even pry the Chas. Gay lands away from the plantation.
>
> Taking an early morning walk through the pineapple fields below Koele I watched the fog bank coming over the rise from Kaa to Kaohai nearly the length of the top of the island. I realized that the prospective field is scarcely if anything more free from fog obstruction than the old field. Talking with Mr. Elliot, the pilot, he said that was the only detriment to the prospective field. The value of the land is certainly another, though, indeed, it may not be the finest pineapple land…

Figure 33. Kōʻele Landing Field, May 24, 1933 (Hawaii State Archives, No. PP-48-5-017-00001b)

Another photograph of the Kōʻele Airfield comes from 1939 when Dr. Hilario Moncado, founder of the Filipino Federation of America (Figure 34), visited Lānaʻi. The area adjoining the Kōʻele Ranch Headquarters is visible in the background.

In 1945, the Territory of Hawaiʻi initiated planning and contracting for a new airport on Lānaʻi. The job was completed in May 1946, and is the current location of Lānaʻi's airport. Completion of the work was described in an article of the Maui News which also reported that Lānaʻi has been without an airfield since December 7th, 1941, when the grass field was destroyed by the U.S. Military.

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Figure 34. Lānaʻi Branch of the Filipino Federation of America Bids Farewell to Dr. Hilario Moncado on the Kōʻele Landing Field September 11, 1939 (Cora Masicampo Collection, Lānaʻi Culture & Heritage Center)

May 18, 1946 (page 1)
Maui News
Lanai Air Field Gets T.H. Okay
Crozier Completes Job, Burdick Accepts Airport

Twenty-nine days ahead of contract, Lanai City's new airport was accepted for the Territory by Al S. Burdick, territorial highway engineer for Maui County after he had flown to the Pine Isle, landed on the runway and had inspected the work which was performed by William H. Crozier Jr. The project cost the Territory about $42,000 and was completed in 59 days, exactly 29 days ahead of the 90 days granted under terms of the contract.

While the new airport is not yet grassed, Crozier's contract is completed and planes may now land and take off on regular flights, Burdick said. Grassing of the airport will be undertaken later.

Burdick highly complimented Crozier on the quality of his work on the airport and said that as far as the Territory is concerned the field is now open to the public.

Lanai has been without air service since December 7, 1941 when the old Lanai grassed airport was ordered closed and demolished by the army.

Cavendish Community Golf Course

James Dole's vision for Lānaʻi was more than a place where laborers would work the plantation, sleep, and get up to go to work again. When he and his engineers developed the plans for Lānaʻi City, it included all the things that would make a community work. Homes with electricity and running water, food services, restaurants, shops, a theater, banks, a school, medical facilities, parks, athletic fields and even tennis courts and a golf course. The public links now known as Cavendish, was renovated and opened in 1948 (Figure 35). A little known fact is that early in the design of Lānaʻi City, Dole had a portion of the Kōʻele paddocks taken out of the ranch operation, and convert into golf greens for the recreational use of island employees.

Figure 35. Aerial View of Cavendish Golf Course and Portion of Lānaʻi City, ca. 1950 (Richard Fuller Collection, Lānaʻi Culture & Heritage Center)

To date, the earliest reference found that mentions the Lānaʻi golf course comes in an article published in The Maui News on October 30, 1929:1 & 6. Readers are informed:

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> **Lanai's Wonderful Progress Shown to Party from Maui.**
> **Marvelous Development in Six Years Excites the Admiration of**
> **Those Driven Over Paved Roads and Among Pineapple Fields.**
> Lanai City they passed the theater, post office, wireless station, hospital, barber shop, stores, a charming park, children's playgrounds, baseball diamond, tennis court and swimming pool, for the Hawaiian Pineapple Company is doing all within its power for the entertainment and comfort of its employees. Within a short time there will be a golf course, its location having been selected.

By 1934, George Munro was writing to the Lānaʻi Company Directors, lamenting the loss of good pasture lands around Kōʻele to the golf greens. On March 17, 1934 he wrote

> The golf greens toll detrimentally on our beef cattle not only by reducing their feed but by stampeding them through the fences. Any disturbance and shortage of feed reduces the quality of the beef. If we were given the section I speak of we could make other arrangements for holding our local beef supply and the golf course affect us that much less…

On August 17, 1938 (pages 1 & 6), The Maui News reported that the golf course had been remodeled

> The Lanai City golf course has recently been remodeled and is becoming increasingly popular. The course is laid out on the slope above the city, which offers a number of good natural hazards, not the least of which is the road to Koele, which cuts through the course. This is no course for the exclusive use of the "big shots." Anyone on the island may use it if he chooses, and the result has been a growing interest in golf…

The golf course was again upgraded in 1948, under the supervision of Edwin B. Cavendish, who according to the Pine Parade Notice in the July 1948 issue, died before completing the work. As a result HAPCo named the Kōʻele course, Cavendish:

> Lanai's new golf course, one of the finest nine-hole lay-outs in the Territory, will be named after the late Edwin B. Cavendish who designed it and supervised its building.
>
> Until his death last March, Mr. Cavendish was superintendent of the Factory Guard Department. Before joining the Company, in 1936, he had been associated with William P. Bell, of Pasadena, noted golf course architect, in the construction of links at San Francisco, Los Angeles, Agua Caliente, and many other outstanding mainland clubs.
>
> When the project at Lanai was approved, Mr. Cavendish drew up plans and superintended the work that subsequently developed it into one of the sportiest golfing tests in the Islands.
>
> Mr. Cavendish's widow, Mrs. Carew C. Cavendish, is a member to HAPCo' s Central Files Department. [Pine Parade, July 1948:14]

Golf has continued to be a favored pastime of many Lānaʻi residents. When David Murdock drew up his plans for the resort development at Kōʻele, his initial concept was to shut down Cavendish and use the land for housing—local residents could play on his resort links for a fee if they wanted to. This went over poorly in the community, and a condition of resort development includes provisions for the upkeep and maintenance of Cavendish for any who wish to play there. Play on the course is free of charge.

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ORAL HISTORY INTERVIEWS ON LĀNAʻI– FAMILIES OF KŌʻELE

Perhaps the most fragile and precious source of information available to us in the modern day, and the one most often overlooked (particularly in academic settings) are our elders and kamaʻāina who are knowledgeable about the tangible and intangible facets of the honua ola (living environment) and mea maʻamau (traditional and customary practices). For the most part, the paper trail—the archival-documentary records as those cited earlier in this study—can always be located and reviewed, but the voices of our elders, those who have lived through the histories that so many of us seek to understand, are silenced with their passing.

Over the last forty years, Maly has interviewed some 800 of kūpuna and elder kamaʻāina across the Hawaiian Islands—all of whom have shared recollections and descriptions of Hawaiian beliefs, customs and practices associated with the living landscape. These kūpuna and elder kamaʻāina tell very much the same story as that described in the wide range of traditional and historical narratives cited in the preceding sections of this volume. Their personal histories and experiences also give life to the landscape and describe the on-going cultural attachment of families to place.

Maly began learning and then documenting facets of Lānaʻi's history with kūpuna and elder kamaʻāina in the early 1970s. As time went on informal interviews were conducted and expanded notes developed from conversations with elder residents. There were also numerous field visits to wahi pana (storied-sacred places) around the island; and in 1975 Maly accompanied Kenneth Emory on a week-long trip around Lānaʻi. In 2001, formal recorded interviews with elder kamaʻāina were begun, and visits to wahi continued.

No new interviews were conducted as a part of the present study. Instead, the focus has been to document traditional knowledge and cultural attachment through primary source records, and then demonstrate that facets of that knowledge and customary practices still exist in the community. Through the interviews and research, information with time depth is available which can help formulate stewardship actions and respectful decision making, in a manner that will perpetuate traditional knowledge and protect on-going practices.

The recorded interview format followed a standard approach that: (1) identified the interviewee and how he or she came to know about the land areas and activities described by the interviewee; (2) identified the time and/or place of specific events being described; (3) the recorded interviews were transcribed and returned to interviewees for review, correction, and release; and (4) copies of the full interviews or resulting studies were provided to the primary interviewees and/or their families.

Excerpts from eight interviews have been incorporated into this study from a larger collection of oral history interview transcripts. The interview excerpts cover the period of personal experiences dating from 1910 to the late 1980s, with information learned about the landscape and people dating back to the 1890s. The interviewees shared personal knowledge and experiences related to Kōʻele, families, features, practices and thoughts on protecting the natural and built landscape. Because the native population of Lānaʻi dropped from some 6,000 people in the 1790s to 100 people in 1922, all of the areas of residency and business operations (like ranching) were connected, and families related. As a result,

the selected interviews could not be recorded without putting them into the context of how they relate to the human history of all Lānaʻi.

In addition to the interviews cited in this study, a major oral history program for the families of Kōʻele and Keōmoku was undertaken by Mina Morita (born and raised at Kōʻele) and the University of Hawaiʻi Center for Oral History Social Science Research Institute (July 1989). The interviews were conducted to document the history of the land and people of Lānaʻi, who at the time were facing unprecedented changes in the community and loss of cherished cultural-historic properties and lifeways. The issue was resort development at Kōʻele and Hulopoʻe, and the pending closure of the pineapple plantation. This collection of family history is a primer for anyone who wants to learn about the human history of Lānaʻi.

While undertaking new interviews was not a part of the current study, these interviews, recorded with elder native Hawaiians and kamaʻāina (aged 101 to 55) demonstrate an on-going attachment to the Kōʻele landscape, and how the history of place shaped their world view and remains important to the people of Lānaʻi. The interviews below include some additional details or memories of place, but largely reinforce the earlier oral history program conducted by Mina Morita and associates. The interviewees cited in the following section are—

- Irene Kamāhuialani Cockett Perry (Born 1917)
- M. Kuʻuleialoha Kaopuiki Kanipaʻe (1915-2017)
- Venus Leinaʻala Gay Holt (1905-2011)
- Helen Hiroko Tamura Onuma (1922-2014)
- Sam Koanui Shin (born 1925)
- Mary Ellen "Suki Richardson Nakoa (1935-2011)
- Albert Halapē Morita (born 1951)
- Richard Munro Towill (1929-2014)
- With contributions by Charlotte Richardson Holsomback (1938)

These interviews were recorded as a part of an on-going oral history project being conducted through the Lānaʻi Culture & Heritage Center. He leo heahea me ka mahalo nui no nā kūpuna a me nā pua o ka ʻāina aloha (With a voice of aloha and appreciation to the elders and descendants of the beloved land).

Annotated Kōʻele Map

In 1938, the Hawaiian Pineapple Company had a map of the Kōʻele Ranch headquarters property drawn up. The map includes at least 62 features comprising the ranch community. These features include residences, storage houses, out houses, workshops, stables, refuse pits, hot houses, the slaughter house, fishponds, a reservoir, laundry and bath houses, and a gas station. Several features are likely to have left subsurface signatures, such as the out houses, rubbish pits, gas station and air raid shelter. The built landscape of the ranch dates from at least 1875, with major additions through the 1930s, and then in the 1940s, the complex is slowly demolished. The memories of who lived where, and what the buildings were, varies depending on the age of the interviewees, and period of time being described. For instance, the old stables and sheep shearing-wool shed were replaced by the Quonset huts in 1947, which were in turn demolished in the mid-1980s.

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Annotations for features identified on Figure 36, come from the oral history interviews cited below, in follow up discussions with Charlotte Richardson Holsomback (born at Kōʻele in 1938), Albert Halapē Morita (raised at Kōʻele since 1953), and through reference to the earlier Kōʻele-Keōmoku Oral History Program (Morita et al., 1989). It is likely that there is missing information, and perhaps some errors in who or what was where. But the overall result of the map provides some detailed information on the historic landscape. The alphabet coincides with letters on map in Figure 36. Also, Figure 25 (page 177), the 1950 aerial view of the ranch camp provides a view of the setting described in the interviews.

A Norfolk Island Pine (Planted ca. 1878, gift of King David Kalākaua to Walter Murray Gibson. Tree struck by lightning in October 1903, and survived. The Norfolk Pine now stands approximately 165 feet high and its base has a circumference of 25-feet.)

B (1007) Manager's House (over the years, was home to Walter M. Gibson, Fred. & Talula Gibson Hayselden, Alika Dowsett, Charles & Louisa Pakohana Gay, and Ernest Vredenburg; and also hosted many noted guests and dignitaries).

C (1009) Guest House (residence of Kenneth Emory during the 1921-22 archaeological survey of Lānaʻi).

D (1024) Ranch office; home of Helen Forbes family, Robert Cockett family, James Kauila family, Morita family; George Ohashi family, and Andy & Martha Evans. Was also used in the 1970s as offices of Don Rietow and Lanai Company). The house was moved in 1988-1989 to northwestern side of Kōʻele to serve as the home of John and Hannah Kauila Richardson, where it stands today. This house was originally built in 1899 at Keōmoku Village as a part of the Maunalei Sugar Company venture, and moved to its ranch location (indicated on Figure 36), by Charles Gay in ca. 1904.

E (1013) Ranch store, post office, and office. Rented out to the Territorial and State Department of Land and Natural Resources, and served as the home for game wardens, Richard Fuller and William Kwon, and as the hunter's check-in station. William and Eva Kaopuiki Kwon and family, moved out of the house in 1969. In the 1970s, the newly formed Lānaʻi Company renovated the house and used it as a company office, occupied by Swede Desha, Albert H. Morita and others. The house was moved in 1988-1989 to the northwestern side of Kōʻele to serve as the home of Ernest and Rebecca Kaopuiki Richardson, where it stands today. This house was originally built in 1899 at Keōmoku Village as a part of the Maunalei Sugar Company venture, and moved to its ranch location (indicated on Figure 36), by Charles Gay in ca. 1904.

F (1015, 1016, 1017, 1018)
This complex included the stable, blacksmith shop, storage room, milk room, and adjoining corrals. In 1947 three Quonset Huts were built, and removed in the mid 1980s.

The roadway indicated between the stable/Quonset Hut complex on the map (formerly lined by rows of trees on both sides) was the road that ran up to the "Ranch Camp" residences, past Ka Lōkāhi Church.

G (1053, 1054, 1055, 1056)
Complex including the ranch slaughter house, hide shed, feed house, piggery and pig pens.

H (1026, 1027)
Home of Kunichi Sakamoto; later used by police officer, Maguire and then DLNR Officer E. Sipe.

I (1028) Storage shed maintained by Kunichi Sakamoto and Gi Hong Kwon (Tūtū Kwon), who raised vegetables a larger garden plot in the open area around the shed, for the ranch manager.

J (1029, 1030, 1031,1032)
Original location of Ka Lōkāhi Church and Hall, Outhouse (later toilets), and fire house. The church was moved to new location under large banyan tree in 1989.

Reservoir made in ca. 1911 as a part of the Kōʻele Ranch operation (rebuilt in the Late 1980s for the resort development). A ranch child, Wilson Kwon drowned in the reservoir in the 1920s.

K Principle's house, County of Maui, Kōʻele Public School (1925), later used by the principle of Lānaʻi High & Elementary School.

L (1050) Experimental Hot House.

Between 1049 and 1050 the Experimental Hot House, was the old air raid shelter underground from World War II.

M (1049) Home of Henry Uyeda.

N (1048) An early home of John and Hannah Kauila Richardson. Later kept as a hunter's guest house by Ernest Richardson for off island guests.

O (1047) Home of Sam Kanahele; and later, home of Ernest and Rebecca Kaopuiki Richardson.

P (1046) Home of Junior "Biggy" Kaopuiki and younger Kaopuiki siblings (Sammy, Johnny, Harriet and Eva) who relocated from Keōmoku Village to attend school.

Q (1045) Home of the Bento family for a while (others uncertain).

R (1044) Home of Gi Hong Kwon (Tūtū Kwon) and his daughter, Ethel.

S (1043, 1042, 1041)
Kōʻele School House (ca. 1916). Home of Simeon and Ella Kauakahi, and later the home of John and Hannah Kauila Richardson. In 1988-1989, the building

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was moved down to the 1948 MECO Power Plant area below the city for preservation, but then left to deteriorate beyond repair by Castle & Cooke.

T (1039) Home of Bernard Gibson and Mary Malia Kwon.

U (1038) Home of Boon Soon Shin and Anna Napuehu Shin (adoptive parents of Sam Koanui Kwon Shin).

V (1037) Home of William and Makaleka Nakihei Kauwenaole (Elaine Kauwenaole Kaopuiki)

W (1036) Half of facility served as the furo (bath) house, and the other half was a laundry room with basins for boiling water and hand scrubbing clothes. Outhouses also on lot.

X (1035) Home of Ernest and Martha Keliikuli, and later home of Richard Fuller family when they relocated from house identified as 1013.

Y (1033) Once residence of a Puerto Rican family, then by Robert Kauila, and then the Basques family. Had great pea (avocado) tree on the lot that was favored by Ernest Richardson.

Z (1034) Ranch Club House. Company kept a pool table in house where ranch hands gathered after work. Building also served as a summer school, taught by Ethel Kwon for ranch children.

The adjoining empty lot was the Ranch Camp park and ball field. It hosted a baseball field, basketball and volleyball courts, and was surrounded by a hibiscus hedge.

At back of houses was an old road (indicated on 1938 map), where grocery deliveries would be made and other supplies delivered to houses

AA (1051, 1052)
Home of Henry and Matilda Napaepae Gibson. Henry Gibson was one of the grandchildren of Walter Murray Gibson. Matilda Napaepae was an Aunt of Ernest Richardson, who came to work on ranch in 1926.

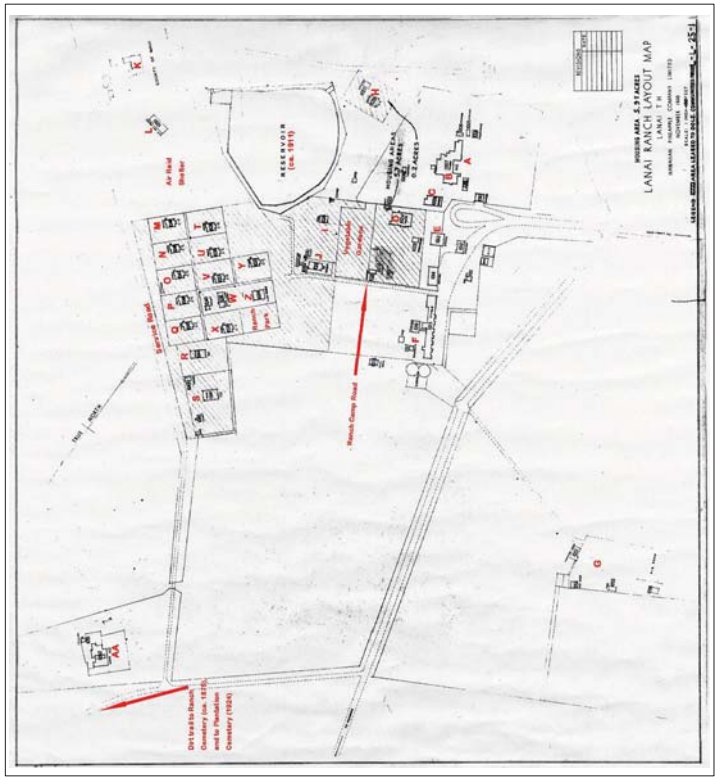

Figure 36.
Annotated Map of Kōʻele Ranch Camp (1938 base map) Key to features is found on pages 200-202.

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Irene Kamāhuialani Cockett Perry
And Daughter, Momi Perry-Suzuki
Lānaʻi Oral History Program
October 14, 2005 – with Kepā Maly

Irene Kamāhuialani Cockett Perry (Figure 37) was born at Keōmoku Village on April 15, 1917. Her father Robert Ellsworth Cockett was a native of Maui, and her mother was Rose Kahikiwawe Cockett, a native of Lānaʻi. R.E. Cockett had graduated from Lāhaina Luna, and came to Lānaʻi to work with the ranch, developing windmills and water systems along the coast to supply the cattle with drinking water. He later became the assistant manager to George Munro up at the Kōʻele ranch headquarters.

Figure 37. Irene Kamāhuialani Cockett Perry (and ancient nāʻū tree) at Kānepuʻu (Photo KPAC_7517, January 19, 2008)

The following interview was conducted at Kupuna's home, the evening of October 14th, and was the second interview of the day, in which Kupuna participated. The first interview was conducted as a group discussion with Kupuna and elder members of the Kaopuiki family and ʻohana.

The interview begins, establishing Kupuna's history and family ties to Lānaʻi with life at Keōmoku Village as a part of the old ranch operation. Kupuna's memories are valuable as they help put in context the life and activities of Lānaʻi's native Hawaiian families.

After Lānaʻi was purchased for the pineapple plantation by James Dole, ranching operations were largely drawn up to Kōʻele, and Kupuna moved with her parents to the ranch headquarters. They lived in the ranch store and office residence, which in 1988-89 was moved to the northwestern side of the ranch property, served as the home of Ernest and Rebecca Kaopuiki Richardson for the remainder of their lives. The home is still at the later location.

KM: Kupuna, we're going to just talk story a little bit more.

IP: Uh-hmm.

KM: And some of this, I'm going to repeat, but it's better now because I can hear your voice plainly.

IP: Yes.

KM: And we're here with your daughter, Momi.

IP: Yes.

KM: So let's record history, and things that are of concern to you.

IP: Yes.

KM: And how we can ensure that the stories of your ʻohana, the kūpuna, and of the land are perpetuated. So, that they will be remembered, yeah.

IP: Well, Momi knows more now, about the land [chuckles]. She's been studying that, I haven't.

KM: ʻAe. Okay, I'm going to niele a little bit, and just ask you a couple of things.

IP: [chuckles] Yes.

KM: So, if you would please, just share your full name and date of birth.

IP: I was born in 1917, April 15th. Down at Keōmoku.

KM: ʻAe. And your full name—and your Hawaiian name is a kupuna name also?

IP: ʻAe. Irene Kamāhuialani Cockett-Perry.

KM: ʻAe. And Momi?

MS: Momi Gwendolyn Perry-Suzuki. And I go as Momi Suzuki.

KM: ʻAe. And when you hānau?

MS: November 12, 1939.

IP: [chuckles] How I remember, is one day after Veteran's Day.

KM: [chuckling]

MS: Yes. And my sister is on February 23rd, one day after President's Day.

KM: Yes.

IP: That's it.

KM: And you said, here on Lānaʻi?

MS: Yes, Lānaʻi City.

KM: Now kūkū, when you were hānau, you said, Keōmoku?

IP: Yes.

KM: And who was mama and your papa?

IP: My mama was Rose Kahikiwawe-Cockett, and my father was Robert Ellsworth Cockett. He was from the Joseph line of the ʻohana.

KM: Ahh.

IP: The Cockett. We have three Joseph something Cockett.

KM: So from the line that comes under Joseph Cockett?

IP: Yes.

KM: Okay. Now papa came from?

IP: Waikapū, Maui.

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KM: But mama, Kahikiwawe line, came from Lānaʻi?

IP: I think, that one, I'm not sure. Whether she was born here, or…

MS: …on Maui. I'm having her genealogy done now.

KM: Yes. Well your papa, was half Hawaiian, half haole?

IP: About that.

KM: Mama, Kahikiwawe, must have been close to pure Hawaiian, right?

IP: Not quite pure, because she said her papa was hapa haole.

KM: I see… You know, earlier today, you shared a beautiful story. You were hānau here, but somehow, because of your dad's work or something, you went to Maui for a while.

IP: Yes.

KM: And then you came home with your family to…

IP: Lānaʻi.

KM: Yes. And your story of riding the boat, coming in.

IP: [chuckles] Yes.

KM: And what was it, you were about four years old, coming in?

IP: Yes, about four or five.

KM: So what was it like when you came to Lānaʻi?

IP: It was a nice place. Nice open space. Had kiawe trees, but there was a big, nice open area.

KM: Keōmoku?

IP: Keōmoku. Coconut trees and lauhala trees.

KM: ʻOia?

IP: Yes, we had plenty lauhala, trees down there.

KM: Ohh!, So did you folks do weaving too?

IP: Yes. My mama would weave moena.

KM: For inside the house like that?

IP: Yes. Moena is the mat.

KM: Uh-hmm.

IP: I don't think she made hats. She did moena, fans and baskets.

KM: ʻAe.

IP: With all the ladies.

MS: Didn't you say that you had to help clean?

IP: Yes. We had to go and gather, when all dry. We had to go gather the leaves and put them all in bunches, roll ʻum, tie ʻum up, and put them away. Then we keep on going, leave them until they are ready to weave.

KM: Yes. Did you have a special place where you hung them?

IP: We put it on the veranda. We had a veranda, and would put them up, away from the sun, so it wouldn't get too dry.

KM: Yes.

IP: And then when they were ready, we had to take the kūkū [chuckles]. And you know how it is.

KM: Yes.

IP: Take all that kūkū out, and then clean ʻum with the rag.

KM: And hoʻopalupalu…

IP: Yes.

KM: Soften the leaves. Did you have a roller?

IP: Sometimes we did, and then pelu [gestures rolling with her hand].

KM: ʻAe.

IP: We used to fold ʻum up, make round and round, kūkaʻa.

KM: ʻAe.

IP: So, we helped them do that.

KM: Yes. So, you folks didn't have many kiawe trees, then?

IP: Not many.

KM: But you had niu…?

IP: Niu, hala, and tamarind trees.

KM: Oh. Now, when we look down there today, it's covered with kiawe, and powder dirt everywhere.

IP: Yes. Before, we had lots of sand, big sand dunes.

KM: ʻOia?

IP Yes. High ones.

KM: At Keōmoku?

IP: Yes. The sand dunes were tall, and kind of gray. Now, you see the sand, all lepo.

KM: ʻAe.

IP: It's all dirty. Before, was nice. All sand dunes. Now, it's all lepo now.

The sand dunes would be real high. We used to climb up and slide down. We would get up on the top and slide down. Where we were, across from our house, had a family, I think it was Apiki. [thinking] That was another family down there. They had a house, and this small, little shack in the back. We used to run up there, the sand dunes, right next. So we would go up on the house, and we would jump down [chuckling].

KM: Ohh! Tūtū didn't yell at you folks?

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IP: They were not home [chuckling]. When they weren't around, we'd run up there, get on the roof, and jump down, slide down the sand dunes. We had fun.

KM: Yes.

IP: There were lots of sand dunes, it was really nice. And then ocean was right next. See we were right here, and like from here out to the street, and then was the beach.

KM: So maybe like 40 feet?

IP: Yes.

MS: Was it always muddy?

IP: No, it was nice. Only when had the big storm, then. Because we had a big kahawai right by our house. So when that storm, the rain and all, the water would come down. Then it would be all muddy.

KM: Yes. But in the kahawai?

IP: Yes.

KM: Not all over?

IP: No, not all over. That's why, like Sol [Kaopuiki] was saying, the company blocked up that kahawai, so the water went down by the church. All the years that we were down there, the church was nice, never had. It was always nice.

KM: Yes. Now, was the ground always sandy, or did you have grass around your house also?

IP: [thinking] I think it was just open. But there was grass too.

KM: Okay, some grass. I remember when you go to Kalaehī and certain areas, the 'akiʻaki grass, or beach grass…

IP: Yes.

KM: The long one that the kaunaʻoa grows on.

IP: Yes, yes. But ours, we had regular, nice grass.

KM: Oh, okay. That's also wonderful that you folks had lauhala, because I don't think there's much pūhala down there now.

IP: They have on the private land.

KM: Okay.

MS: Who lived at that property, where that beach house is built now? And the lauhala tree is just to the left of that house.

IP: [thinking] Kauila.

MS: Remember, you said you used to go on horseback to visit the girl and play?

IP: Oh, Annabelle. That's at the place where they had the warehouse, Kahalepalaoa.

KM: Hmm. So further down then?

IP: Yes.

KM: So you went quite a ways on horseback by yourself?

IP: Yes, and we walked too. We were kids.

KM: Yes.

IP: So we had a friend over there, at Kahalepalaoa. She used to ride her horse to come to school. But when we'd go visit her, we would walk, and go down there and play with her, and then we would come home.

MS: And there was a lauhala tree on their property.

KM: Hmm.

IP: Yes, there were plenty of lauhala trees on their property.

KM: And what was Annabelle's last name?

IP: [thinking] I forget [Ohumukini]. But she is gone now. She was in Honolulu, and I went to see her, but she wasn't well. So I didn't get to see her, she passed away.

KM: Hmm. Now your house at Keōmoku, was one big house?

IP: Yes, it was big. And I think it was a company house.

KM: I see.

IP: A big house. It might have been, you know, before, they had the hotel over there, at Keōmoku, with that Lāhaina, Maui one.

KM: Oh.

IP: They said that it was from Keōmoku. That house that they took over there, was in Keōmoku.

MS: That's another house.

IP: But there was a hotel down there, a big haole house or something, and that's the house that we lived in.

KM: So, your house, when you were a young girl?

IP: Uh-hmm. It was a big house, and that's the one I said [in earlier interview], didn't have back steps.

KM: Yes. And then you had a separate cooking house?

IP: Yes, outside.

KM: And your house had a veranda?

IP: Yes, a veranda all the way around.

MS: And that's the house that was across from the church, a little further down, and tūtū man had a little shack that he kept his saddles in, right?

IP: Right where the Kaopuikis were, the Gay's house, our house was right next.

MS: Yes. And the kahawai used to be right there.

IP: Yes.

MS: That's that house where Kaopuikis lived after tūtū them.

KM: I see.

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IP: When we left Keōmoku, and came up, then they moved in.

MS: My tūtū lady's niece, tūtū mama, they didn't have a home, so tūtū lady said they could live in that house.

IP: Yes. That's when we left Keōmoku to come up. That's where they lived.

KM: I see.

MS: And the Pioneer Inn that is at Lāhaina now, had something to do with the hotel that was at Maunalei Plantation.

IP: Yes.

MS: Evidently, that one, they moved some of the lumber to Lāhaina

IP: And that house that we lived in, might have been for people when they came over there.

KM: I see.

IP: It was like a guest house or something. It was a big house. It had three bedrooms, and even had a bath, and a big kitchen, a pantry, and a huge living room, like this.

KM: Oh, so about 25' by 35'.

IP: It was a beautiful house, and had a big veranda all the way around it.

KM: Beautiful.

IP: That's the way I think they built it before.

KM: Yes.

MS: I remember, before the house fell, maybe one part of the wall was still standing. Everything else was falling over. My husband and I found a trunk with pictures.

KM: Ohh!

MS: I wanted to take the pictures and show to tūtū or something, but she said, "No, don't touch it." So, we left it.

KM: Oh, aloha! You folks, when you were growing up, you had places where you planted 'uala and things like that around the house?

IP: No, not around our house. The only thing we had was some corn [chuckles], growing for the chickens.

KM: Ahh.

IP: But we had a watermelon patch, like where the road, is, across. We had a little place where we planted. But, we didn't have vegetables. That's why I was telling Momi, "I don't know why we didn't have carrots and stuff like that." Maybe that time they didn't do it.

MS: Maybe they weren't ma'a to it.

IP: We had green onions. Let's see what else [thinking]. That and watermelons.

KM: The food that you folks ate generally, was pipi?

IP: Fish. Salt fish, salt beef, and whatever. Sometimes my father would go to hunt, or whoever, would bring some. Or we would go to Maui and by meat. We would come home and salt it. Big crocks, kelamania. They would put plenty inside, salt 'um. And poi.

KM: Yes. Interesting, so Keōmoku, much of your food, except for the fish, and some from when they'd go hunting…

IP: Yes.

KM: Much of your food came from Maui?

IP: Yes.

KM: So the poi and other items like that?

IP: Yes. Kini konapipi [chuckling].

KM: 'Ae.

IP: Canned corned beef, and sardines.

KM: Yes.

IP: That's what we used to have. And sugar, flour, we used to have, make pancakes. No more bread.

MS: Eggs, you had chickens?

IP: Yes, we raised chickens. We had chickens, sometimes salt beef. We kept the salt beef, or whatever we salted, fish, like that, dried fish. We kept that for the winter time.

KM: I see.

IP: We'd eat it now and then, but that's mostly put away for winter, because when it gets real winter time, the kai rough. So we cannot go sometimes.

KM: 'Ae. So you would always have a back up?

IP: Uh-hmm. Sometimes they could go out because it was so rough. One time, it was so rough, that when the boat came in, everybody thought the boat was going to huli. It was thrown up and all. But they came in okay.

KM: Wow, amazing.

IP: Yes. So we would get, before like, maybe October, November, a little earlier. We would order things.

KM: I see. So from November like that, through March?

IP: Through about February, March.

KM: The ocean would be rough, and you couldn't rely on the boat going to Maui?

IP: Yes. And then, if we don't have poi or anything, we eat pa'akai, water [chuckling], whatever.

KM: Hmm.

IP: But we survived [chuckling].

KM: That's right. How long did you stay down at Keōmoku?

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IP: Well, we stayed down till… Like I said, we don't think of the years. But when I think back, I think we moved in about 1928. About 1928, we came up to Kōʻele.

KM: So you lived there for about five years or so.

IP: Yes.

KM: Were there other families, neighbors close by to you?

IP: There were only to families. Joseph Kahaleanu—the Kahaleanus, and the old man Kini. He was related to Tūtū Rebecca them. But I don't know what his last name was. And a Japanese family. That's about all that I remember. The Kaopuikis were way up on Kaʻa. Sol [Kaopuiki] told me that it was three miles. He said, "Irene, you know how far we walked to go to school?" "No, but far." He said, "Three miles."

MS/KM: Wow!

IP: That's far.

KM: So from your house to the school, was how far?

IP: From our house to the school was from here, to next door.

KM: Oh, so close by.

IP: [chuckling] Yes.

KM: So how big was the school? One room school?

IP: One room. [chuckles] And the school was…

MS: All grades in one room?

IP: One. And I think the room must have been about like this, with windows like this [indicating the size of her living room].

KM: So about 25 by 35?

IP: Kind of like this. There were chairs, and the teacher, and windows on the side. And by the ocean, plenty sand dunes over there. All the sand, it was a nice place. So when we would go to school, and the teacher would have to go home, sometimes to her cottage for something. We were playing in the class, and jump out the window onto the sand [chuckles]. Jump out, slide down, and come back. Then when the teacher would come, we'd sit [sits up straight and proper].

KM: Make angel [chuckling].

IP: [laughing] Yes.

KM: So how many children were in school when you were there?

IP: When I was there, there were only about six, I think. There was Sol; Joe Kahaleanu; the brother, Ben; myself. I don't remember Lei… [Thinking]

MS: Uncle Sammy?

IP: Yes, Sammy. And then Annabelle. When I was, that was about it. And then this other Japanese family, but she was too young yet. Helen Onuma. I don't think she was in school with me, she was too young.

KM: So, it was a one room school house, and there were six or so of you in school, during your time. And as Momi said, all the grades were together.

IP: Yes.

KM: The school went from first grade to?

IP: Sixth grade, I think.

KM: So all of the lessons… How did the teacher teach different lessons, or did you just all learn the same thing every year?

IP: [chuckling] She would teach us…well, yeah, I guess we were all the same thing.

KM: [chuckles] So by the time you were in fifth grade, you had the lessons down, right?

IP: Yes. You know, a teacher would come, she would teach about three months, and then she would leave. She didn't like the place. There was no place to go. So I was in the first grade, then we would only have school for two or three months. Then another teacher would come. I think the longest teacher that I had, was only three months.

KM: Wow.

IP: So we never got to learn much.

KM: And these were all haole teachers?

IP: We had only one Hawaiian one, Mrs. Kelso. But I never had her, my brothers had her, she was before me. She left, but I knew her, but I never had her for a teacher. I think she came up to Kōʻele and taught, but I don't know.

MS: So which teacher told you not to speak Hawaiian?

IP: That was later. That one was when we got older and came up to school over here.

KM: At home, when you were a child, you must have spoken Hawaiian regularly?

IP: Yes, my mom and dad spoke Hawaiian, but we answered in haole [chuckles]. But I heard them, and I understood.

KM: yes.

IP: But like I said, most times, we answered in haole. Even the teacher would come to school, we'd speak English.

KM: Yes.

IP: So we go home we speak English. And my father graduated from Lāhainaluna.

MS: Yes.

IP: And he used to have a blackboard on the wall for us.

KM: Oh, so he would teach you?

IP: Yes. He would teach us our A, B, Cs, so that I was pretty good. But in school, I guess I never learned too much.

KM: Well, the teachers weren't around.

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IP: Yes, and we were playing [chuckles].

MS/KM: [laughing]

IP: And then, when the next teacher would come, we would be on the first grade. Then that one would leave, and the next one would come.

KM: And back to first grade.

IP: Yes. Then when we moved up, and I went to school, I was the oldest in the second grade. And kind of hilahila, yeah.

KM: Uh-hmm.

IP: So [chuckles], Sol came up earlier. He went to school up at Kōʻele. [thinking] Rebecca came up first I think, so then Sol came up to go to school.

KM: Yes.

Family moved up to Kōʻele from Keōmoku

IP: And we moved up in 1928, then I went to school up there…

KM: Okay. How many brothers and sisters did you have with you here on Lānaʻi?

IP: I have Bennet, the oldest. But I don't remember him staying with us, he was much older. And then Moses. That one, I don't remember either. Then I have my sister Annie, and my brother Lloyd, and my sister Mary, and myself, were the only ones that grew up on Lānaʻi. The others, Annie, Bennet and Moses, I don't remember being with us, but a couple of times they came to visit.

KM: ʻAe.

IP: My sister lived over here with her hānai, Keliʻihananui. She was with Keliʻihananui.

KM: So out Pālāwai section?

IP: Yes. I think she came to be with him because they were old. Being the oldest, and that's why I didn't get to know here until I was about ten years old. I came home to the house, and there were some people. I said, "Who's that?" And my mama said, "This is your sister, Annie."

KM: I see.

IP: "Oh, my sister, okay." Annie Enfield, my oldest sister. [chuckling]

MS: Mrs. Gay talks of her as a girl. She would go to Maui and go to Kress and buy these rings. She would ride this white mare, and come riding like this [gestures holding her hands out, showing off the rings]. [chuckling]

KM: [chuckles] So everyone could see the rings.

IP: See her little rings [chuckles]. She was with the Gay daughters. So that's the only time that I met her, and knew that I had a sister…

KM: Hmm. Now, at Keōmoku, as a child, were you already going to church at Ka Lanakila?

IP: Yes, we went to church. My father and my mother went. My father didn't belong to the Hawaiian church, he was a Protestant, I think.

KM: Hmm.

IP: But when we were down there, mama would say, "we go to church." But you know, my dad started church over there. When he was in Keōmoku, he got hurt or something, I don't know how, but his legs were hurt bad. And this blind minister that we were talking about from Molokaʻi.

KM: Oh, George?

MS: Alexander George.

IP: He used to come over, and the Kaopuikis used to be at that church, down at Keōmoku. But when he came…I don't know how he came, but he stayed with us. So he told my dad, "You can be cured." "Yes sure," he wants to be cured. So he said, "Go to church." So my dad went to church, and they pule. And so my dad got well from that.

KM: Wonderful.

IP: So he joined the church. And my mother had already been going, and then we all went to church.

MS: And then he became a minister.

IP: He became a minister after we came to Kōʻele. He was with them, going to church and all. Then when we moved up to Kōʻele, there was no church. That's when they went into pineapple.

KM: Yes.

IP: And the Kaopuikis didn't have anything down there, no jobs, so they also moved up.

KM: So this was in the 1950s?

IP/MS: Yes.

KM: About 1951 or so?

IP: Yes. So my dad came up, and we didn't have any church, so we got together, they only went to hālāwai. So they got together and decided they were going to have a church. So my father talked with the boss of the company, that "we would like to have a church." So the company said "okay," we "could have a place and have church." And I think that the members got together and made the church [ca. 1930]. The company had leased land to them.

KM: So kupuna, let me ask you real quickly, when you moved from Keōmoku to Kōʻele in 1928.

IP: I think about that.

KM: Did you folks go to church in between that time then, or did you just have hālāwai with family, pule ʻohana?

IP: When we moved up, we had hālāwai.

KM: So there was no church for you folks at Kōʻele?

IP: No more.

KM: Okay. So your church, Ka Lokahi…?

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IP: Yes, Ka Lokahi is our church.

KM: When was Ka Lokahi built?

IP: I think 1930.

KM: I see, so about 1930 [dedicated March 16, 1930]?

IP: So 1930, up to now would be what?

KM: About 75 years.

IP: Yes, I think it was in 1930, they built the church.

KM: Okay. So when papa them moved up to Kōʻele, it was shortly thereafter—about two years later—that they go permission from the company?

IP: Yes, about that.

KM: Okay. So who was the kahu? Papa was the Kahuna Pule at the church?

IP: No, when they got the church, it was Kauila and… Well I don't know that they were really, but because they had the church down at Keōmoku, and were Kahuna Pule down there, so Kauila and Daniel Kaopuiki, and then my dad. My dad was like a Deacon.

KM: Yes.

MS: So he became a Deacon when he was at Keōmoku?

IP: Yes, I think so. In 1930, our church was built, yeah?

MS: Yes, march 16th.

KM: Dedicated, March 16th, 1930.

IP: Then everybody went to church, like Daniel Kaopuiki and James Kauila used to hold the service, and my dad too, would hold service. And then… [thinking] I'm not quite sure how long, but the minister from Oʻahu, of the Hoʻomana Naʻauao…

KM: From Ke Alaula, is that the mother church?

IP: Yes. So he came over to Lānaʻi and came to church and held service. Then he said he was going to "go back home," and when he'd come back, he'd "tell us who the Kahu would be for Ka Lokahi." So he went, and when he came back he announced that that "God showed him" that my father would be the Kahu for the church. And Kauila and Daniel did the alakaʻi, deacons.

KM: Hmm.

IP: So that's how my father went.

KM: So was Ka Lokahi the first Hoʻomana Naʻauao up here?

IP: Yes.

KM: And the makai church was still active?

IP: Yes.

KM: Up to the 1950s?

IP: We were still going down, but after it got impossible to go down, the roads were bad. So that's how they decided to move the church here, build the church. It

was hard to get down to Keōmoku.

MS: I remember White Rock.

IP: Kalaehī

MS: Kalaehī was so bad.

IP: Bumpy, bumpy, bumpy.

MS: That we would have to get out of the car and walk, while the men would push the car over that area.

KM: Hmm.

MS: This particular Sunday, the were having conventions at the Church, and we were dressed up. So the road had a lot to do with it.

KM: I see… So now at Kōʻele, you folks lived in one of the old houses, in the vicinity of where the hotel is now?

IP: Yes. There was the ranch store, and the boss told my dad, to move up and manage the Kōʻele, and the house was there.

MS: He worked as the bookkeeper for the ranch, right?

IP: Yes, bookkeeper, manager assistant.

KM: Okay. And how many houses were there at Kōʻele?

IP: Let's see, one, two, three, four, five, about six. And the manager's house, Mr. Munro's house. And then the house we stayed in, counting the office and the store.

KM: Tūtū, was the office and the store, the same building?

IP: Yes, it's one building, the store used to be half, and then the office in the back. And our house was separate.

KM: Okay.

IP: But right in the same yard.

KM: And behind you, who lived there?

IP: Behind us was Kahaleanu. [thinking] And I don't know if there was a Japanese family. And then on the side of us, there was Kwon, Mary Kwon. There were two brothers, Kwons. And then this side had the Richardson's house, John Richardson's house. And then there were two more smaller houses, but I don't remember who was living in there. And then the back house was Rebecca Richardson. That's about all [chuckles].

KM: Yes.

MS: These homes, were they the company homes?

IP: They were like the ranch houses now, that Aunty Rebecca's house is. That was down by where the store was. They moved them when they started to build. They told them that they had to move down to the city, but they said they didn't want to. Eventually, Mr. Murdock told them to move the house up there, and they could have the house. They moved up there and fixed it all, too. So lucky, and

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the two brothers lived up there, Ernest and Johnny. Oh, and we had another big building, just back of where the reservoir is now.

KM: Oh.

IP: Right back there, there was a principle's house.

KM: Oh, there was a school house up there too?

IP: The school house was across. Where there is the little valley like, where the golf course is now. It was up there.

KM: So the school house was across?

IP: Yes. It was away. You had to go down the little valley, and across.

MS: Number two hole.

IP: Right up there, that's where the school was. But the principle's house was way back. Had our house, some other houses, and then there was a nice big house. That's where the principle lived.

KM: And you had your own, little one room school?

IP: No, we had a bigger school. Let's see, two [thinking]. I think there were two long ones, and we had a cafeteria.

MS: Really?

IP: Yes, there was a cafeteria.

MS: I guess Mrs. Endrina [Josephine] went to that school?

IP: Yes.

MS: There were quite a few students who went up to that school. Squeaky [Noboru Oyama] went there.

IP: I guess so.

MS: It must have been more than one room.

IP: Yes. I think there was three classes, and then the cafeteria. So about four, I think.

MS: Mrs. Kauila was one of the teachers there, Squeaky talks about her.

IP: I didn't know, because that was up here, and we were at Keōmoku then.

MS: Oh, so when you lived at Keōmoku, that schools was there, the golf course?

IP: I don't know because we were at Keōmoku. But when we moved up there was a school up on the hill. So when they had it, it must have been before, yeah.

KM: So it was there when you to there?

IP: Yes.

MS: Must have been, because the Lānaʻi Plantation was here in the 1920s, with a community going by 1923 or 1924.

KM: Yes, and the ranch was still active, and the school land deal was underway in 1924.

IP: So they had the school. Sol should know because he came up before we did, to go to school.

KM: Yes. Did you used to go holoholo around Kōʻele at all? Did you ever hear stories, like what does the name Kōʻele mean?

IP: No, I never heard.

KM: Hmm. One of the things that you did, you wrote a short mele for Kōʻele?

IP: Yes, for the hotel. When the hotel was built.

KM: What inspired you to write that little mele?

IP: Well, we were invited to go and help with painting and decorate. The fellow [John Wullbrandt] who came to decorate the hotel, he was an artist. He asked Mr. Murdock, and he said anybody who wanted go up and help with the painting of the hotel, to come. And we got paid. So I went up and painted with him. We were talking and got to be good friends. Then he asked me one day, if I could write something for the hotel? And I said, "Gee, I don't know. Like what?" He said, "Like Kōʻele and the ocean, and something like that." So I said, "I'll try." So I came up with that.

KM: Yes. Do you remember the words to it?

IP:

I waena o ka Pakipika,	In the middle of the Pacific
Aia o Hawaiʻi,	Behold Hawaiʻi
I waena o Hawaiʻi,	In the middle of Hawaiʻi
Aia o Lānaʻi,	Behold Lānaʻi
Aia i ka mole o Lānaʻi,	There in the center of Lānaʻi
O Kōʻele,	Is Kōʻele
E hoʻokipa mai i Kōʻele.	Be welcomed at Kōʻele

Then, one of the musicians up there, we taught, he said, "Can I make a song out of it?" I said "sure." I said, "If you make a song, don't forget me." [chuckles]

KM: Yes, credit you.

IP: He said, "okay." And he did.

KM: Yes.

IP: It was pretty nice. And then when I went to Honolulu one time, and this person in the Hawaiian language… I asked him what he thought, and he said he liked it. But the one thing was I had "in the heart [i ka puʻuwai]." He read it, and said, if it was alright, he would change that word, to the "mole" o Lānaʻi.

KM: ʻAe. So the very center?

IP: Yes. So I said, yes, that's okay.

KM: So it's like Kōʻele is the center, the heart of Lānaʻi.

IP: Yes. That's what he explained. It means more, mole. So I said "Thank you."

KM: Beautiful!

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IP: Yes [chuckles].

KM: So what was it like growing up at Kōʻele?

IP: There were cowboys, and we had a slaughter house where they slaughtered all the cows.

KM: That was makai of you?

IP: Yes. Where the barn is now, just about there.

KM: Oh, that facility, and where the sign says "Keahi Kawelo?"

IP: Yes. It was nice, but us kids couldn't go play much. Dad was a little bit strict. No play, but Saturdays, we could go play. We would do our work, and then go play. But when you went to school, you come home and you had chores to do. There was nothing much anyway, we only stayed home. Then when they got the movies, we could go to the movies once a week.

KM: And you walked to the movies?

IP: Yes, we walked, it was not far. From Kōʻele, to just where it is now.

KM: Yes.

IP: At least once a week we could go. It wasn't too expensive, like now. I think we paid only 25 cents [chuckles]. And we had baseball games on Sundays. And we had volleyball.

KM: Tūtū, were there round up days that you folks had for the ranch?

IP: Yes. Down Keōmoku, when we were down there, they had.

KM: Oh. Where would they drive them to?

IP: They had corrals down there. And they castrate the cows. They'd make a bonfire and pūlehu the… [chuckles]

KM: Pehea, ʻono? [chuckling]

IP: Yes [chuckling].

KM: So tūtū, were there lei, did the cowboys sometimes wear special leis?

IP: I don't remember.

KM: So kaunaʻoa, as a lei, when you were children, did you ever make lei?

IP: No, not kaunaʻoa, we don't have it up here. Down Keōmoku, Kalaehī had. We would make leis of carnations. We had plenty carnations. We had nice flowers, carnations, sweet Williams, roses, plenty.

KM: You mentioned that you had hala trees down at Keōmoku, did you ever make lei of hala?

IP: No, I never did. But I've seen them make, some of the ladies did.

KM: Yes. So you folks weren't making lei too much when you were makai?

IP: No.

KM: But come mauka to Kōʻele?

IP: When we came to Kōʻele, we would see a lot of cowboys with their ʻākulikuli lei on their hats.

KM: Did you folks ever go gather maile?

IP: Maile, no, because it was too far. Only up the mountain had maile. And Lānaʻi didn't have too much maile.

KM: Yes.

IP: But we would go gather liliko'i, in the back and going up to Lānaʻi Hale.

KM: Kaiholena?

IP: Yes. Had plenty of the purple kind, not the passion fruit.

KM: Lemiwai?

IP: Yes, lemiwai too. One year my brother Moses came, and I think he must have known from when he was a child. They came, and we went up, got one bag full of lemiwai. But we don't have it now.

KM: Oh, no more.

IP: The lemiwai and passion fruit is different.

KM: Yes, liliko'i and lemiwai.

IP: Yes, that was good. We used to have plenty in the back of the hills. But no more now. And we would strip off the vines and make decorations for the programs. Pull the whole thing, so I guess pau, no more seeds.

KM: Oh, yes. When you take everything, the roots and all, no grow. Just like limu.

IP: Yes. Us here on Lānaʻi, we had limu, but then we blame it on the Filipinos. They came and take ʻum all, and the rocks, they throw ʻum up on the land. They take ʻum all, and now, no more.

MS: I remember the lemiwai where Aunty Mary used to live, just across the street.

IP: Yes.

MS: That area was full. Then when I moved back here in 1993, went to the art center, they had all these vines to make wreaths. They didn't know how precious that fruit was.

KM: Yes.

IP: The lemiwai. But the limu, limu ʻeleʻele, we had plenty.

KM: Yes. And you were saying, limu ʻeleʻele, certain time?

IP: Yes.

KM: When was that?

IP: Right after… [thinking] Maybe some time after February, March. Because when the kahawai comes down, it's all muddy water. And someone was telling me, the limu ʻeleʻele likes that.

KM: Yes, it likes the fresh water.

IP: So that's right after, when the big rain comes, then pau, we see all this green

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limu come up.

KM: ‘Ae, and ‘ono too.

IP: Oh yes, I love that one. It’s just like green hair [chuckling].

KM: Yes. And so funny how they called it limu ‘ele‘ele, but when you look outside, it’s really ‘ōma‘oma‘o.

IP: Yes. I like that. And then they had the other kind of limu, golden colored.

KM: Oh, līpoa, fragrant?

IP: Yes. We had some of that too. But when the Filipinos came, afterwards, no more nothing.

KM: They don’t know about the respect and care for.

IP: And you know for get ‘ōhiki?

KM: ‘Ae, the crab.

IP: Where had plenty stones, we would go lift up the stones.

KM: And what, you would kō‘ala that?

IP: Boil them.

KM: Oh, and sweet the meat?

IP: Yes. And we had the other one, ‘a‘ama. We would get ‘a‘ama on the trees down here [chuckling].

KM: Really!

IP: Down past Kahalepalaoa, down Naha side.

KM: Oh.

IP: The kiawe trees fall in the water, and then the crabs come up and sleep on the trees. Like somebody came up and they wanted ‘a‘ama. My brother Lloyd was telling us this. He said, “Oh, we can get them. We get them on the trees.” [chuckling] And they don’t believe! They said, “You can’t get them on the trees.” He said, “Oh yes, it’s easy to catch them, we get them on the trees.” And sure enough, the tide comes in, and they climb up on the trees. They’re all on the branches. So they grab ‘um and clean. No need go on the sand [chuckles].

KM: Yes, how amazing.

IP: It’s funny. And they couldn’t believe it. One time somebody came, and they went and saw. “Yes, you can get crabs up on the tree.”

MS: What about the time you were tied to the mast on the boat?

IP: Sol was saying the boat was big, eh?

KM: Yes, a little bigger. But still a small boat.

IP: How long is this room?

KM: Maybe twenty feet, here?

IP: From there to here?

KM: Yes.

IP: Well, the boat isn’t that long. The boat must have been from about there to here [gesturing length].

KM: Sixteen paha? And you were coming home from Lāhaina?

IP: Well, I was at Lāhaina with tūtū. My oldest brother was staying at Lāhaina. And that’s how I got my name, Irene. My oldest brother. He told me, that “I named you Irene.” Anyway, he was staying there, and he said for me to come and visit. So I went to stay with grandma. I was over there, and stayed a little while. But I was home sick, I wanted to come home. I stayed at grandma’s house right by the kahakai, and you can see Lāna‘i. [chuckles] So after a few days, I like to come home. I cry, cry, “I want to go home.” Grandma tells me, “No, you cannot go home.” But I was crying. So grandma said, “Okay, we go down to the wharf. See if the captain can take you home.” So we went down, and the captain was Sol Kaopuiki’s father, Daniel. And the uncle Noa.

KM: Yes.

IP: They were running the boat.

KM: And was it the sail boat or the motor boat?

IP: They had a little motor, and they also had a sail.

KM: Yes.

IP: The sail was down, they didn’t use it much. So I was down at the wharf. Grandma told them that I wanted to come home. They said, “No, she cannot go home, too rough.” I cry, “I’ve got to go home. I’ve got to go home.” [chuckling] So they said, “Okay.” They had a rudder, yeah.

KM: Yes.

IP: And at Lāhaina, had the waves, where the kids all go surfing. Well, the waves were big, and when we went out, the rudder came off.

KM: ‘Auwē!

IP: Lucky thing they had another one. I remember, they put me down in the little place over there, like a little room. And then when we went out it was kind of rough already, so they tied me to the mast. They told me it was too rough already, and the captain operating the rudder, pulling ‘em like that. So they tied me to the mast so I would not fall off. It was not tall. And one of them had to be downstairs to operate that motor, slow ‘em down, make ‘em fast or what.

KM: I guess going in time with the waves?

IP: Yes.

KM: So I guess this was still trying to get out of Lāhaina?

IP: Yes, we got out of Lāhaina already. We got out there. After we lost that rudder, they put the other one and we came home. But when we got to the channel, it was real rough. Oh, the boat would go up, and I think the waves were like this high [gesturing as high as the house]. In that book on Lāna‘i, it talks about 50 foot high waves. And we were up there, looking down, ohh! And the boat going like that, gee. The captain, I don’t know how he hung on. It took one hour. And when

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you come down, the wave is going [gestures down angle – chuckling]

KM: So the next wave is way up above you.

IP: And then I think, when you look up, like it's going to come in, but you go up again with the boat. Boy, I cannot forget that. They figured if they huli, at least they would find the boat, and they would find me, but they would not find the captain.

MS: Ohh!

IP: Because they weren't tied on [chuckling].

KM: 'Auwē! And coming into Lāna'i was rough too?

IP: Yes. And then mama them didn't know I was coming home. So if we had huli, at least they would find the boat, and they'd see me. If not, I would be maybe some other place. Drifting off somewhere [chuckles]. But that was some experience.

MS: Tūtū man operated a boat too?

IP: Not the time I was.

MS: Charles Gay wrote that Robert Cockett would operate a boat too.

IP: Yes he did. But that time, he wasn't on the boat.

MS: Yes. And John Nakihei, also.

IP: Yes, John Nakihei, he was a boat man too.

KM: And John Nakihei was Maggies' papa?

IP: Yes.

KM: Well wonderful! I don't want to luhi you too much this evening. But it's so nice to see you folks again.

IP: It's nice talking to you [chuckles]…. [recorder off]

IP: [off recording]

Recalls story of traveling by horseback with mother from Keōmoku along the coast, spearing he'e from horse; and up Naha Trail, over the mountain; and to Pālāwai, to visit kūpuna Keli'ihananui mā. Describes old family homestead, planting, and pā ilina…

Ku'uleialoha "Lei" Kaopuiki Kanipa'e
Lāna'i Oral History Program
January 26, 2006, with Kepā Maly

Kupuna Lei Kaopuiki Kanipa'e (Figure 38) was born on November 23rd, 1915, at the old Kahalepalaoa Warehouse (a relic of the Maunalei sugar Company operation). Her parents were both natives of Lāna'i, with connections to several ahupua'a on the island and related to all the native Hawaiians in residence. Kupuna Lei passed away at home on January 30th, 2017, at the age of 101.

Figure 38. Ku'uleialoha Kaopuiki Kanipa'e at her birth place, Kahalepalaoa (Photo KPAC_7892, February 16, 2008)

The narratives below are excerpted from a longer interview, and serve to share some of the connections of families from the lowlands (Keōmoku region) with the 'ohana of the Kō'ele vicinity. Reference to—the reservoirs of Kō'ele and water sourced from Maunalei; naming Kō'ele for the heavy fog the passed through the area; the school and work with the Munro family; other storied place names; and the collection of plant materials for lei—are cited in the excerpts that follow.

LK: [discussing the upper plateau by Waiapa'a, which her mother had told her] …Hele lākou ma laila.

KM: 'Ae.

LK: So this is what our mama told us. 'Oia ko lākou noho 'ana. Then one day she told us to take her up, she's going to look at the mango tree up kuahiwi.

KM: 'Ae.

LK: I don't know where the kuahiwi she went to. She told us from up at Captain Soule's, inside there get the bamboo.

KM: Yes, ka 'ohe lau li'i.

LK: That 'ohe is growing inside there and get plenty ginger and get mango trees inside there. And this is where she told us that's where they go pick their mango. Ko lākou wā 'ōpio, hele kākou. That's the story she told us.

KM: 'Ae.

LK: After that, when she moved down to Kahemanō, they stayed over there. The father sent her to Honolulu to go to school, Kawaiaha'o, I think.

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KM: Oh, Tūtū Mama?

LK: Yes. Tūtū Mama.

KM: Oh.

LK: She went. I think she didn't last long over there.

KM: [chuckles]

LK: I think she missed home, she cried a lot. Come back again. When she came back again, I think that's when she male to my father.

KM: 'Ae. So here at Pālāwai, tūtū…?

LK: Yes.

KM: Your kūpuna and…?

LK: That's where my Aunty Namī them used to live.

KM: Namī.

LK: My Aunty Namī (Kaopuiki) used to live down here. She was lawe hānai 'ia from… [thinking] I don't know who, Makahanaloa? She was married to Makahanaloa, but the one who went lawe hānai, I don't know what the last name of that person that was taken the hānai. That's where she was living. My father them all lived the other side. That's all her brothers and younger sisters. She was the second oldest of my Aunty Kamaka [Kamakahukilani], that's Elizabeth.

KM: Yes, Kamaka.

LK: She was the second oldest, then comes to my Uncle Noa.

KM: 'Ae.

LK: Her brothers all down there. They always plant something, plant potato or whatever kind food they get over here. Sometimes he takes down, and take for the family down there.

KM: 'Ae. From this section at Pālāwai, and mama I think was hānau in 1892, about?

LK: Yes.

KM: She hānau up here?

LK: Up or down, I don't know. [Hattie Holohua Kaenaokalani Kaopuiki at Kahemanō, Sept. 11, 1892.]

KM: Okay. Was she living with her mama and papa? Ka'enaokalani mā?

LK: The mama was sick, they went take her down to Kalaupapa.

KM: 'Ae.

LK: They took her mother, I think her aunty folks were taking care.

KM: Is that how Keli'ihananui came in?

LK: Yes, for a little while. She was staying for a little while. The rest she was staying mostly with her uncle folks, the Ka'uhane.

KM: Ka'uhane. 'Ae.

LK: In Maui. She goes Maui and she stayed down Kahemanō.

KM: 'Ae.

LK: She was living, just like, because no more mother.

KM: No more mākuahine.

LK: The father was married to his second wife, but she wasn't happy with the second wife. She stayed with the uncle folks, the Ka'uhane, I think.

KM: 'Ae. Tūtū Mama and Tūtū Papa shared, when her mākuahine… And Tūtū Mama was Hattie Holohua Ka'enaokalani?

LK: Holohua Ka'enaokalani.

KM: Her mama was Hattie also or not?

LK: Yes, Hattie.

KM: Ka'enaokalani.

LK: No. Her mother was Hattie, but what you call that, that name you was telling?

KM: Kahikiwawe.

LK: Kahikiwawe.

KM: And that's how it comes pili to Aunty Irene them.

LK: Yes. And then she's married to my mama's father.

KM: 'Ae, okay.

LK: Ka'enaokalani, Daniel Ka'enaokalani.

KM: Daniel. Tūtū Mama had said that when her mama got ma'i Pākē, the lepera, that they took her to Kalaupapa.

LK: Kalaupapa, yes.

KM: Tūtū Mama was left alone?

LK: Yes. She was left alone because she no more mama, she stayed with the aunty folks. And sometimes she stayed with the uncle them.

KM: 'Ae.

LK: She always talked about that Uncle Kauila. Aunty Hannah's father.

KM: Yes.

LK: That's her father's first cousin. I don't know how they could get Kauila. You know how the Hawaiians they change around their name.

KM: Yes, the name.

LK: The first name was Pu'upa'i.

KM: Pu'upa'i, oh.

LK: That's their regular name. I don't know how when they got into their religion of the church.

KM: Loli?

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LK: Loli the name.

KM: Pu‘upa‘i was the name but then came Kauila?

LK: Kauila and Ka‘uhane.

KM: Ka‘uhane.

LK: Yes.

KM: Do you remember hearing a story that, was it your grandfather that went back to go get?

LK: Yes, my mother told me that. They went back, my grandfather and the brother-in-law, Aunty Irene’s mother’s, brother. I don’t know what was his name.

KM: Aunty Irene’s uncle?

LK: Yes. The uncle, the mother’s brother.

KM: Yes, brother, that’s right. They went back to Kalaupapa?

LK: They went to Kalaupapa and steal her, take her away from Kalaupapa.

KM: Yes.

LK: Brought her home, came down to Pali Kāholo and then he overturned the boat, one small skiff. In the night, they went and they took her out from there. Came home and I’d heard, in the cave, so many days they went hide her. Then they took her down to Kahemanō.

KM: ‘Oia?

LK: That’s where she stayed and died.

KM: So much the aloha because they didn’t want her to be on Moloka‘i.

LK: Yes.

KM: So they brought her home?

LK: They brought her home.

KM: Into a cave, that’s by Pali Kāholo, down by Kaunolū side?

LK: I don’t know if they really went hide her in there or what. But that’s what Tūtū Mama said.

KM: Tūtū Mama said, yes.

LK: I don’t know if really, she said she only heard.

KM: That’s right, lohe wale nō.

LK: Yes.

KM: So interesting.

LK: I know. When she told us that, so interesting but the story was before that.

KM: Yes, yes.

LK: And then they took her down and lived down at Kahemanō.

KM: So they must have kept her in hiding?

LK: Hiding her, nobody knew.

KM: Wow! Amazing!

LK: Only the family knew.

KM: Yes. Amazing!

LK: So that’s what she told us.

KM: Yes. You know from here, I wonder, like Luahiwa is there the house was just further over where they lived. I wonder how did they travel from here down to Kahemanō like that.

LK: That’s the part she never tell us.

KM: Has the old trail that goes that way, ‘Awehi and over.

LK: Yes. Must be they go through there I think, but I don’t know. Maybe they ride on the horse, I think.

KM: Yes. Ride horse. Still got to have a trail.

LK: She never mentioned.

KM: She never mentioned it. You were sharing that when mama was young and tūtū told me too, and you were just talking earlier about the pūnāwai.

LK: Yes.

KM: You said they used to have big kēhau up here too. Tūtū Mama said had kēhau?

LK: That kēhau, only the kind heavy dew.

KM: Heavy dew.

LK: Yes.

KM: That’s how they were able to…?

LK: Get the water from the ti-leaf, heavy dew, that’s how they got the water from the ti-leaf. I thought they bathed with it.

KM: ‘Ae.

LK: I believe that, because when we was on the ranch before that’s how it was. Plenty water on top the ti-leaf, and then when you go there you like the ti-leaf you had to shake…

KM: So all the water?

LK: Yes.

KM: They call that hilihili lau you know when…

LK: Yes, wipe themselves.

KM: Yes. Oh.

LK: That’s how they wash their lepo.

KM: Yes. Amazing how. They planted ‘uala out here to?

LK: They planted potato, something else they planted, and they take down. Only depended on the rain. That’s how they lived.

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KM: Yes. Then they would take their ʻuala or what down and kuapo, exchange for fish and things?

LK: Yes, that's what they do.

KM: Amazing, yeah!

LK: Yes.

KM: So you were saying pretty much for the first sixteen, seventeen years of your life you lived makai?

LK: Makai. But I went Maui I don't know what year. I went Maui and stayed with my uncle them, Noa, but my cousin was not married but she stayed together with one of the family used to work for the Gay family. They was all staying down at Keōmoku, they worked for the Gay family. What they do is they lived on watermelons.

KM: Ahh.

LK: I don't know if they was planting potato too, but I think watermelons.

KM: That was their business, they would plant watermelons?

LK: Yes. Plant watermelons, they worked over there.

KM: Interesting.

LK: After that when the Gay family pau already, they give up already with the Lānaʻi business, they not improving nothing. When the people were staying down there, Munro came. When Munro came, not much people yet. People was moving already to Lāhaina to find jobs.

KM: Oh. They were living Keōmoku and makai?

LK: Yes, they moved to Lāhaina.

KM: Even from Maunalei like that?

LK: Yes, from Maunalei. The people who had the land down there, the family that owned the land, since they moved away they gave the land to my mama, that was my mama's family.

KM: ʻAe.

LK: Because my mama was married to my father, the head of the wife is my father. So the name went underneath him.

KM: Under his Kaopuiki rather than Kaʻenaokalani.

LK: Yes, and that's how we had the land down there, it was given to my mother from this old man Kawelo. That's how the Maunalei land came to the Kaopuiki family.

KM: In the Maunalei land, did they have land makai and taro land in the valley?

LK: They have the one just, only just a small portion of the land over there. From that same man, Kawelo.

KM: Kawelo.

LK: Gave my mother. But you see, the Lānaʻi pineapple, they know down there get water, but they never know where they went put that pipe that was inside that

kuleana, the land is of this Kawelo.

KM: Kawelo, your mama?

LK: Yes, was given to my mama. We never know all these things until my mama went tell us. They went exchange that land.

KM: Oh, I see.

LK: From Keōmoku. Just a small portion.

KM: Yes.

LK: We don't know how big and how far. The water pipe was built right in there.

KM: In the Maunalei property?

LK: Maunalei.

KM: So Tūtū Mama went exchange?

LK: Went exchange. When my two cousins, they came back, my two cousins that's the one married to my Aunty Kapeka Von Oelhoffen.

KM: Von Oelhoffen, yes.

LK: These two cousins came back to us to stay at Kōʻele with my older sister, Aunty Rebecca.

KM: ʻAe.

LK: You know what they told us. "Oh, how come the two old folks," telling my mother and my father, "Why they went go exchange the land, they can make big money with that water land from the company." When they told us that, we never know.

KM: Never think about that?

LK: No, we never know we had a place over there. We only know down the Maunalei one. We never know about over there.

KM: Inside the valley, had water, yeah?

LK: In the valley, yes. Up in Maunalei.

KM: I guess before they used to plant taro too, had loʻi.

LK: They had taro, and they had any kind fruits down there, but nobody knew. That's because we young yet, we don't know all these things.

KM: Yes.

LK: These two they older already, they came and they told us. I don't know if they went to war and then they came back. When they told us that. Gee, we never know that. They exchanged the land… [thinking] I don't know.

KM: Your Aunty Kapeka, that was Kamakahukilani?

LK: Yes.

KM: She was the one who was with the queen also for a while?

LK: Yes. That's what Tūtū Papa them said, I don't know, because of her husband [Von Olehoffen was a chef for King Kalākaua]. Take them over there, I don't know what they were doing over there.

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KM: How interesting.

LK: Yes.

KM: A Lady in Waiting.

LK: Yes…

KM: So you lived makai and like you said, about 16, 17 years old, you came up. You said your first work, you went to go work for James Munro?

LK: Yes, baby sit.

KM: Baby sit them.

LK: And clean house.

KM: Clean up. Did you live in their house or did you live?

LK: I was staying with my brother them.

KM: Uncle Alec and Jerry mā.

LK: Yes.

KM: And you hānau in 1915?

LK: In 1915.

KM: So you came mauka around 19…?

LK: In 1937.

KM: Close to that time that's right.

LK: Yes, 1937.

LK: Then I worked for the school in the cafeteria…

KM: And work with, was it Aunty Mary Kuʻikahi?

LK: Yes, with Mary Kuʻikahi.

KM: She was at the cafeteria. By that time the school wasn't at Kōʻele, had moved down to the main location now?

LK: Was down already.

KM: So you were working, taking care…?

LK: When I came up here was pineapple fields already.

KM: Was pineapple already. And you said different blocks like that, Miki camp had all the different places?

LK: This is where down here this place, I remember that's where I learned how to box the pineapple. The men would carry the pineapple on their back in the bag. They bring them out at the end part of the line, the plant, we stayed there, cut the top and put the pineapple in the box.

KM: Did you cut the whole top off?

LK: Yes, you got to cut off the top and then put them in the box.

KM: How many pineapple in one box about?

LK: The pineapple was so big [gestures].

KM: Twelve inch kind.

LK: I don't know how many went inside, I can't remember.

KM: You had to box 'em?

LK: We had to box them, and then the truck comes there with the men that's going to load…

And that's the time Lānaʻi, sometimes get water, sometimes no more water.

KM: Yes, so interesting. Tūtū Mama told you the kēhau [early morning, misty dew] was so thick.

LK: Thick.

KM: And at Kōʻele you saw the thick too like that, you said like the lāʻī, ti-leaf and what, people could gather water from the leaves in the early morning. Amazing how the people could live?

LK: Yes.

KM: They would travel you know even…

LK: But like up Kōʻele they had the well.

KM: That's right, the pond.

LK: Yes, they had that pond, that pool. But the other one, I don't know how they went make that water. You know where they get by the hotel, that old well, they not drinking that water. The other two wells was way up inside, that's the one where they was drinking water from there. How they went make that, I don't know.

KM: Interesting!

LK: And you know up there had that tunnel going through, inside going through Maunalei?

KM: No.

LK: We went in there when we was young. Me, we were young kids at that time with my brother them.

KM: Oh yeah?

LK: Yeah.

KM: From Kōʻele?

LK: Yes. From that two ponds, you know from the water we used to drink before?

KM: Yes.

LK: Now get golf course over there.

KM: Yes.

LK: Get one tunnel, you walk inside there, I think about three, you can go just the height about our height. And you reach, you come out to where the pipe, the water pipe comes down and get from Maunalei.

KM: They bring the water from Maunalei?

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LK: Up to this reservoir.

KM: Oh!

LK: That's where the water comes and then the pipe. I don't know if the pipe comes from through there or on top. Comes from Maunalei and comes to that water pond.

KM: So they dug a tunnel from Kaiholena side, through Kaiholena?

LK: I don't know what is the name of that place. That's where we went in there when us was young.

KM: Wow!

LK: Plenty of us went inside there, we reached the other end. We've got to slide down on the pipe.

KM: Pali. It's on the pali there?

LK: It's on the pali.

KM: Wow!

LK: And then we came back, before they used mule.

KM: Yes.

LK: They have a road to come up. You come to the graveyard side before you come home to the ranch.

KM: 'Ae. That's right. You would cut, past the graveyard down?

LK: Yes.

KM: Not like now, it goes around.

LK: Not now.

KM: Oh. How interesting!

LK: Yes. I was young that time, all us kids, we went over there. I never know had tunnel inside there. You know get kolohe boys!

KM: [chuckles]

LK: We followed them we went through, then we reached down Maunalei. That's why one year I went down Maunalei and I never go down for long time. I looked up at the hill, I look at the pipe, I said, "Oh, I remember this place!" [chuckling]

KM: Yes. How amazing!

LK: And then I said, "We came through the tunnel and how we went down." "How you folks came down?" "Through the pipe." [chuckling] Slide down on the pipe and reach down. But going home, when we stopped down there had two Japanese couples. They was taking care down there at that place.

KM: At Maunalei?

LK: At Maunalei.

KM: Oh.

LK: We never fool around or anything over there, we had to come home because all

young kids before dark, we came home. [chuckling]

KM: Yes. How interesting!

LK: Yes. I thought you knew had cave inside there?

KM: No.

LK: When you walk in there you can feel the water…

KM: Drip, kulu.

LK: Yes. Kulukulu.

KM: That's very interesting!

LK: Yes.

KM: When you were young, when you would look at the mountain, were there trees like this or was it more barren before?

LK: They were just starting to plant the plants.

KM: Just starting. That was James Munro them?

LK: Yes, James Munro.

KM: Planting all the trees like that.

LK: That's all with my brother them.

KM: Yes.

LK: Was working for the ranch. Uncle Ernest them.

KM: Yes. Uncle Ernest. It's so beautiful now, you know you look, you see.

LK: Yes. That's why people asking me, "How come they call that place Kōʻele?"

KM: 'Ae.

LK: I told them, "I don't know." The old people used to stay there, Kōʻele, they figure, every time it's dark over there, it's dark because of the clouds.

KM: Yes.

LK: The clouds every time. And that name is named already, Kōʻele.

KM: 'Ae.

LK: In Hawaiian way, when you name something it's standard already.

KM: Yes, it belongs there.

LK: Kō is already standard, Kōʻele…that's why they tell me, "But how come?" I said, "In those days had plenty fog, not like today." Now, only certain times you see.

KM: So it's different today too, the weather like that?

LK: Yes. The weather, yes. The weather has changed, not like how before was. Thick you no can see each other!

KM: Amazing! That thick! Uhi, uhi wai!

LK: Yes!

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KM: Just cover everything over.

LK: Sometimes when we go Keōmoku, we come back we cannot see the road.

KM: Amazing! Kūkū, you mentioned place names like, Kōʻele. Are the old place names important to remember? Is it important that we use the names properly like that?

LK: Kōʻele?

KM: Any of the place names. Like when we went out to Keahiakawelo. These are important old names on the land?

LK: I think so because it was already named there.

KM: ʻAe. When you use the name properly. It's like you respect.

LK: You respect the people who had named that place.

KM: Your kūpuna, ka poʻe kahiko.

LK: Like Tūtū Papa said, you know from where we lived and all the way come to where the Lānaʻi hotel now…

KM: ʻAe.

LK: That's Lānaʻi restaurant now…

KM: Yes, the old hotel.

LK: Yes. Nininiwai…

KM: Nininiwai, and that's where the pond was also, Nininiwai?

LK: I don't know.

KM: Behind Kihamāniania though and up towards Kōʻele right, that's Nininiwai?

LK: Yes, yes.

KM: Behind?

LK: All the way from there, comes to where that Lānaʻi hotel.

KM: Yes.

LK: That's what he said, but I don't know.

KM: Nininiwai.

LK: Get plenty names over there. I don't know, in the old map you got to go through there.

KM: It's beautiful, the old maps, seeing the old place names like that.

LK: Yes. You see that name, Iwiʻole too.

KM: ʻAe.

LK: You see, you know these people from Honolulu, when they come over here they look, "How come Lānaʻi get these kind names? Where they get this kind names from?" "I don't know."

KM: Right. Mamua, poʻe mamua.

LK: Yes. People who live over here, funny, they named all these kind names. And the new people now they like nīele, "Where this kind name comes from?"

KM: Even here you look, Pālāwai.

LK: Pālāwai. Why they call this place Pālāwai? And they like you demonstrate the name.

KM: ʻAe.

LK: The name is already pāla, it's ripe already.

KM: ʻAe.

LK: The wai. "Water means the wai?" You know this place you see every time get mists. You see the mist.

KM: That's right, it settles down.

LK: Yes. That mist is seen.

KM: ʻAe. It's like when we were talking, you go up to Lānaʻi Hale…

LK: Yes.

KM: And the piko of the mountain…

LK: Yes.

KM: Haʻalele paʻakai?

LK: [chuckling] That's the one Tūtū Papa always tells. You know where all the houses down Mānele that live now.

KM: ʻAe.

LK: I only hear this but… This is where the old people used to stay from before. Poʻe kahiko, the people.

KM: ʻAe.

LK: That's the ones, they live up here, they go down Mānele for pick paʻakai. The road that they come from there, can see you know.

KM: ʻAe. The alanui…

LK: The alanui for these poʻe come up.

KM: ʻAe.

LK: And they go get the paʻakai from down there, and when they come up you can see and they holo wāwae.

KM: ʻAe.

LK: They come home up here, and they take their paʻakai. When they reach up here by the mountains. When they came down here, down here looked all white. That's the mist, they leave their… They haʻalele all their paʻakai up there, and they come down here they think they can get the paʻakai from over here. When they reach over here no more the paʻakai.

KM: No more.

LK: That's what Tūtū Papa said, "haʻalele paʻakai," because they leave their salt up

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there [chuckling].

KM: ‘Ae. They would come from makai, Keōmoku side or something like that?

LK: Either that, yes.

KM: Climb up the mountain, come to go holoholo here go fishing.

LK: Go fishing, yes.

KM: Interesting, how the names come about.

LK: For these people the ones who lived here before.

KM: Yes.

LK: They named all these names…

KM: …Mahalo nui.

LK: That’s all my moʻolelo I can think of.

KM: Mahalo. It’s so beautiful! Thank you so much! Mahalo nui! So nice.

LK: Nice today, I thought was going to get ua.

KM: Yes.

LK: When you look, minamina the land.

KM: ‘Ae.

LK: From pineapple.

KM: Imagine back in Tūtū Keliʻihananui’s time when Tūtū Mama was a young girl was only pipi and they eat everything. The land has been really abused at times.

LK: They used to get goats before. That’s the one eats all the vegetation.

KM: Yes, that’s right.

LK: And she used to tell get the passion fruit, the purple one.

KM: Lemiwai kind.

LK: Yes. They call that lemiwai, used to get the purple kind, that’s what they used to eat. When they went bring the yellow one [iliko‘i], nalowale.

KM: ‘Ae. Imagine though living out here and walking the distances like they did or ride horse.

LK: Yes.

KM: Even to go down to Kaunolū to go fishing or something. Lōʻihi!

LK: Yes.

KM: So cute, Aunty Venus telling the story about walking from Lālākoa, come down to go to school.

LK: [chuckles] Yes. Only her more she’s the last one.

KM: That’s the last one. Yes. I will see her on Saturday.

LK: How old is she now?

KM: One hundred, almost one hundred and a half.

LK: Long life.

KM: Long life. So when you were working for James Munro’s family, you took care of the children and house like that.

LK: Yes. The first one was Ruth. When the other sister came and she told me I was taking care of her but I said, “No, I think I took care of Ruth.” When she was born, I don’t know. They left this place already. I wasn’t working for them. Maybe somebody else was taking care, I was working for the principle, Mr. Wyman.

KM: Wyman was the principle at the school house?

LK: Yes. At that time.

KM: Did you ever go up to the Lālākoa House?

LK: No. I never been inside.

KM: Hmm… Did you ever make leis of any kind?

LK: We only make before we was talking about that.

KM: What kind of lei?

LK: ‘Ākulikuli. That’s what I was talking about with Mrs. Hokama. Before Lānaʻi we see every place you see only ‘ākulikuli. All different colors. Today, you no see that kind, no more already. Everybody doing their job working, no more time for take care.

KM: No garden.

LK: No garden, no more time.

KM: Yes.

LK: Before people they work pineapple, they come home, they get time. They take care their yard, they plant what they like. But today, no more that kind.

KM: So you never went kuahiwi gather maile or anything like that?

LK: Only when we went with Tūtū Mama. She went up there and showed us where the maile liʻi.

KM: ‘Ae.

LK: That’s way up at Captain Soule.

KM: Captain Soule [Waiapaʻa Bench]?

LK: Captain Soule, but I don’t know what’s the real name of that place.

KM: Oh! Tūtū Mama took you folks up to show you!

LK: Up there, yes.

KM: Did you ‘ūʻū, strip maile like that?

LK: Yes, with me and my husband.

KM: Wow! How nice that Tūtū Mama took you. How, you could drive?

LK: No. My husband the one, we went together up there. That’s the time we had one

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jeep. She like see the place so she tell us the story. That's how we went up there.

KM: 'Ae, Mahalo nui, tūtū! So nice to talk story!

Venus Leinaʻala Gay-Holt
(with Luella Holt-Kurkjian and Lamella Holt-Battley)
Lānaʻi Oral History Program
January 28, 2006 – with Kepā Maly
At Pacific Heights, Oʻahu

Figure 39. Venus Leinaʻala Gay Holt (Photo KPAS_3096, January 28, 2006)

Venus Leinaʻala Gay-Holt (Figure 39) was born on September 30, 1905, at Keōmoku Village. Between 1902 and 1907, Her parents, Charles and Louisa Pakohana Gay, purchased 99% of the island of Lānaʻi. During her fist 15 years, she lived on Lānaʻi, where she experienced the history of place, knew all the families, and traveled the land. She and her family lived at Keōmoku on the coast, and at Kōʻele and Lālākoa in the uplands. Kupuna's memories of Kōʻele, ranch operations and facilities, and changes over time offer us an eyewitness perspective of the history of Kōʻele and Lānaʻi. While the family lost control of the island in 1910, they maintained a homestead and business presence on island through the 1920s. Besides ranching, one of the major business endeavors of the Gay family was the commercial culture of pineapple. Gays' success was one of the motivating factors in James Doles purchase of the island in 1922.

Over the decades, the family continued to visit and stay connected with the land and people of Lānaʻi. During the interview Kupuna was joined by her daughters, Luella Holt Kurkjian and Lamella Holt Battley Kupuna live to 106 years old, and passed away on September 7, 2011. Her ashes were brought home to Lānaʻi and the place of her birth.

KM: Thank you so much for being willing to talk story again. We're going to talk about your growing up on Lānaʻi.

VH: Yes.

KM: Kupuna, your full name and date of birth.

VH: My first name is Venus, Leinaʻala Gay-Holt.

KM: Okay.

VH: September 30th, 1905.

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KM: ‘Ae. And where were you born?

VH: Keōmoku, Lānaʻi [chuckling].

KM: Keōmoku. Yes, that’s amazing! You were showing me a picture of your Keōmoku house.

VH: The Keōmoku house, is the one right here.

KM: Yes. That’s the house you were born in?

VH: That’s the house I was born at.

KM: Is this the house [showing Kupuna a photograph of the Keōmoku house]?

VH: Yes, this is it. This is the Keōmoku house.

KM: Okay. And your papa was Charles Gay?

VH: Yes.

KM: And your mama?

VH: Louisa [thinking]…

LK: Pakohana.

VH: Louisa Pakohana.

KM: Does Kala?

LK: Kala was her uncle.

VH: She brought up by Kala, so she carried that name.

KM: So Pakohana?

VH: Yes, Pakohana.

KM: Your parents moved to Lānaʻi?

VH: Yes.

KM: When did they move to Lānaʻi about?

VH: I have that some place, I think they moved in… [thinking]

KM: Luella come…

VH: November 1902.

KM: In 1902, okay.

LK: Around there.

KM: This house at Keōmoku?

VH: It was already there.

KM: It was already there, okay.

VH: It was right across from Lāhaina.

KM: Yes. Was there also a church across from this house… Was there a Hawaiian church?

VH: That was another house. This was right… The church was farther down. This house was right next to a school house.

KM: Oh, the school house.

VH: Yes.

KM: Okay. So this house here, was built before you moved to Lānaʻi?

VH: Yes.

KM: This is where you were hānau?

VH: It was built by an old family that used to live there, the Hayseldens.

KM: Ah, I see.

VH: They built it. So when the folks moved to Lānaʻi, the home was already built. That house and the one up in Kōʻele.

KM: Both of those houses were built by the Hayseldens?

VH: The Hayseldens.

KM: Okay.

VH: It was already there when the folks moved there. The folks of course, added to it. We had cottages around, right down at the beach, Keōmoku.

KM: Yes, and the beach was…?

VH: Right nearby.

KM: Close. When you go down today, if you go to Lānaʻi now, it’s maybe a hundred yards more.

VH: Yes. But it was very close to the beach. In those days, the homes were very close to the beach. I have a picture of that, Keōmoku.

KM: Keōmoku, yes. Was this house also used by… Do you remember that they tried to plant sugar at Maunalei?

VH: Probably so, I don’t know.

KM: That was in the 1890s.

LK: I think that’s before they went.

VH: This was the place I was born [chuckling]. I’m history, you know [chuckling].

KM: You are history! So in 1905…?

VH: 1905.

KM: What was your father doing?

VH: He was a rancher. And we had a home up in Kōʻele. The ranch was there, and we had this home right at Keōmoku.

KM: I see. This is an aerial photograph of Kōʻele [showing Kupuna a photo of the Kōʻele vicinity]. Here’s the reservoir, Nininiwai…the houses through here.

VH: Yes, yes.

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KM: You see the big Norfolk or the Cook Island Pine.

VH: Yes, that's a Norfolk pine, it was right by that Norfolk pine.

KM: That's where your house was?

VH: Once when it was heavy, lightning storm, it cracked that tree and it destroyed part of our roof that was right near that tree.

KM: Oh! The lightning?

VH: They used to say you never plant a pine trees near the house.

KM: Oh!

VH: Because, that was a good example, after that the folks never planted a tree right next to the house. Always back away from it, that was the tree that was struck by lightning and demolished part of the house.

[Kupuna later recalled hearing that the lightning bolt arched through the wood burning stove, and knocked somebody down. They never planted the pine trees around the houses after that.]

One tree. It was very popular, all of Lānaʻi you would find the Norfolk pines. You didn't have to water, it just lived on the dew on the ground.

KM: Yes.

LK: Munro brought those trees.

VH: Yes, Munro planted a lot of it. George Munro, yes and his son was James.

KM: Okay.

VH: He also had several daughters, Rena and Gina. They all came from New Zealand.

KM: Yes.

VH: That's where my father came from, from New Zealand.

KM: Yes. Did George Munro work for your father?

VH: No, they were independent.

KM: They were independent, oh.

VH: There was a ranch and George worked for Lanai Ranch.

KM: Oh.

VH: We lived there at Kōʻele, and then we moved out, we built a home at Lālākoa. My father was independent. In fact we had a ranch, we had a place not only at Kōʻele, but at Keōmoku.

KM: ʻAe.

VH: We traveled back and forth.

KM: So when you would go between Keōmoku and Kōʻele. Did you ride horse come up the trail?

VH: Ride horses. Horses, my father had a hack, and our younger brother and Louise were just little kids, they just rode in the back. I always wanted to ride in that hack [chuckling]. My mother was a wonderful rider, but she had these children, so we were pulled by horses all the way. The roads were rough.

KM: Yes. You would go from Keōmoku past Maunalei?

VH: Past Maunalei, past… [thinking] There's another place halfway up, get up to… Oh, I've forgotten some of the names. I have to read my notes. We'd ride all the way out, and then… It was all uphill, all uphill, and finally to get up to… I can't think of the name right now. There's a sharp turn, there's a road that stopped here and the road started again. You get on this road you have a beautiful view all the way to Lālākoa.

KM: ʻAe.

VH: Kōʻele and Lālākoa.

KM: Is it Kaʻalani? Do you remember Kaʻalani?

VH: [thinking] No. Mahana.

KM: Yes, yes. So when you would ride up the road, you would go Keōmoku, Hauola.

VH: Yes.

KM: Maunalei.

VH: Yes. All the way up that incline.

KM: Yes. Do you remember a place that they called Pōhakuō, where they said the moa, the chicken?

VH: Yes, moa, Pōhakuō, yes. There were all these names, every little spot had a new name. I don't know where my map is.

LK: Mama was quite young, so some of those names may not have been real familiar to her.

KM: Yes. You would ride between Keōmoku and Kōʻele quite regularly?

VH: Yes. We'd ride, and then we had a wagon with all of our ukana. We did have a buck board. When it got to the point where mother couldn't ride very much. They bought what they call a buck board. It was very, very light, and you just needed two horses. Then instead of us riding all the way up, she rode on that buck board. And my dad drove it. Two seats, and in the back two seats, all the little ones, Albert and Louise would ride, get in that car. When you look at the roads today you wonder how they did it.

KM: Yes, yes.

VH: But Lanai Ranch was already there, the people took good care of those roads. After a heavy rain there would be some run-off. And the county of Maui used to fix the road, the main road. The men that lived on Lānaʻi repaired the road all the way up there. After you got up to that point and looking out to Kōʻele, then after that you could see our home way off in the distance, Lālākoa. Right from that turn.

KM: At Kaʻalani that big turn right there.

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LK: Yes.

VH: It was a long distance. We used to start from Keōmoku, would be all the cowboys ready, and they got the buggies ready for the freight.

KM: Yes.

VH: Then we'd start. The cowboys who didn't have to wait would go on ahead, but there was always some in the back, as we would never know when we going get stuck in the sand [chuckling].

LK/KM: [chuckling]

VH: When we got stuck in the sand the cowboys were there, they had to pull. We always had our shovel in the cart, shovel the sand out and everything, and pull us out of the sand dune. Two cowboys always followed.

KM: Wow. So your father was ranching then?

VH: Yes.

KM: Was he ranching mostly down by Keōmoku at that time?

VH: No, always up above. The ranch was all up there.

KM: All up?

VH: Yes. What he had down at Keōmoku was a piggery.

KM: Oh!

VH: We raised pigs, we had some people living down there.

KM: Yes.

VH: That was quite a settlement, there were a lot of Hawaiian homes down there at Keōmoku. So those people worked for us. They took care of the piggery, and we planted a lot of alfalfa and things like that. Food for the animals.

KM: Yes.

VH: So that was quite a settlement at Keōmoku. Not only the people that worked for us, but the old times residents.

KM: Yes.

VH: They all lived down there. Very few of those people that lived up Kōʻele and Lālākoa were the old time residents, most of them were from Keōmoku.

KM: Oh, I see. Families like Makahanaloa?

VH: The Makahanaloas were from down there. The Kaopuikis.

KM: Kaopuiki.

VH: Kāne, and [thinking], Enoka.

KM: ʻAe. Apiki?

VH: Yes.

KM: Kauila?

VH: Kauila.

KM: ʻAe.

VH: Kauila was over by… He always lived down there. But he also… All these people that worked for us also had homes—the ranch provided them with homes up in Kōʻele.

KM: Kōʻele, oh.

VH: So their families always lived, stayed back down there at Keōmoku, because the public school… Right next to our house was the public school.

KM: Yes, I see.

VH: So the children all went to that school. Only the men folks that worked, the cowboys that were needed to go up to Kōʻele, moved. The rest of the family just stayed down there.

KM: Yes.

VH: And we always had a boat, Mikiʻoi, right down in Keōmoku there. That boat, the man that ran the boat, the launch, often went to Lāhaina. Not only to buy whatever they wanted, poi and things like that, but also to take the mail.

KM: Ah, yes!

VH: We had to have the government sponsor that boat to take the mail every Wednesday and Saturday to Lāhaina.

KM: Oh!

VH: So that boat also belonged to the folks [her parents]. The ranch did have one, but they had a small boat. But ours ran, because we always depended on food from Lāhaina.

KM: Yes, yes.

VH: We had to have poi [chuckling].

KM: Yes [chuckling].

VH: We couldn't grow kalo for on Lānaʻi. We'd have great big barrels of poi. [gestures a barrel being about three feet in height]

KM: Oh, yes, big!

VH: To last for a week or so [chuckles]. They weren't in bags they were in barrels.

KM: Amazing! Tūtū, you have a photograph of Kahalepalaoa Landing…right over there.

VH: Yes, right over there, Kahalepalaoa.

KM: Is that the landing you folks would use? Did you use Kahalepalaoa Landing when you were young?

VH: For the boat?

KM: Yes. Did the boat use it?

VH: We very seldom used that, we used our own.

KM: Oh, right at Keōmoku?

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VH: Right outside of our place, there's a channel out there.

KM: Yes.

VH: The folks always had…the Hawaiians always had that channel.

KM: I see. Who was the kapena, who was the captain for the boat usually?

VH: Keoni Nakihei was one of them, and [thinking] Noa Kaopuiki, and Daniel Kaopuiki.

KM: Yes.

VH: [thinking] Those men were always available.

KM: Yes. It must have been something for the boats running between Lānaʻi and Lāhaina.

VH: Yes. Twice a week. We had to get our poi from over there [chuckling], and flour.

KM: Yes. Now you said that your church, Lānaʻi Hale…?

VH: Yes.

KM: Why was it named Lānaʻi Hale Church?

VH: After the mountain, that mountain. The highest mountain is Lānaʻi Hale.

KM: Yes. And so they named the church for the mountain?

VH: For the mountain. And the church was founded by my father.

KM: Yes, yes.

VH: And it was he who named that church Lānaʻi Hale. They used to have… It was sponsored by a mission here.

KM: Yes.

VH: The mission is still yet, I've forgotten what they call themselves.

KM: Hawaiian Evangelical Association?

LK: Yes.

VH: See, my father grew up on Kauaʻi and Niʻihau. They were all familiar with the government process.

KM: Yes.

VH: The government was responsible, they always had a boat, to take the mail, they would sponsor the boat to take the mail twice a week. And often everybody gave their list, and somebody else would get into that boat and go over there and buy and bring back.

KM: So they would shop in Lāhaina?

VH: Yes. So my father finally bought his own boat.

KM: I see.

VH: Our boat, we had so many Hawaiian people down at Keōmoku. There was more people living down Keōmoku than up above.

KM: I see.

VH: Most of them worked for my father. They all came to our… We had two churches down there. Funny thing, all those people who worked for my father all came to our church [chuckling].

KM: Yes. Because the other Hawaiian church…

VH: Hoʻomana Naʻauao Church.

KM: Yes, it was built in 1903 ["Hoolaaia Oct. 4, 1903"].

VH: That was built by the Hawaiians.

KM: Yes. That's right. So there were the two churches?

VH: Two churches.

KM: Where was your church, Lānaʻi Hale, in relation to your house?

VH: It's about a half mile.

KM: A half mile away, towards Kahalepalaoa?

VH: Towards Kahalepalaoa.

KM: Okay.

VH: My folks always took the road, and they always had to keep that road passable. But we always ran down the beach [chuckles]…

There were a few Japanese people as well, and the self-sufficient. Sometimes they volunteered to work on the roads, Lanai Company paid. We didn't have anything to do with the roads, it's all Lanai Company. So there was always some outlet.

KM: You folks were growing watermelons also?

VH: Yes!

KM: What were you doing, eating all of the watermelon?

VH: All you want [chuckling]! In those days, my mother, we used to plant them for the pigs, the little ones [gestures size] like that.

KM: About eight, nine inches.

VH: All we had to do was crack that open and just eat it like that.

KM: Good.

VH: My father always wanted to have better melons. So they called it the Mediterranean, or so many others. And all of those they would grow like this [gestures size].

KM: Oh, eighteen inches kind.

VH: So we shipped that to Lāhaina.

KM: I see. So you were selling watermelons in Lāhaina.

VH: Watermelons in Lāhaina, right from our plants at Keōmoku. And ideal place. They cut back lots of the kiawe, beautiful soil. That's where we planted watermelon.

KM: Yes. Where did your water come from, for drinking and for watering plants?

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VH: There were wells for watering our plants and all of that.

KM: Were there windmills?

VH: Windmills.

KM: I see.

VH: We had a spring and had a windmill there. So we could get our water, and our neighbors, all the people who worked for us.

KM: You would have drinking water from the well?

VH: Yes, drinking water. But to some of the people it was sort of brackish.

KM: Yes…

VH: …There was a settlement at Kahalepalaoa, right in that area. On the mauka side there were very few Hawaiians settled. Down at Pālāwai, there was an old family Keli‘ihananui.

KM: There’s the old grass house at Pālāwai.

VH: Yes, Pālāwai.

KM: You have an ‘umeke, a calabash [an ‘umeke with a mouth of approximately 24”]. Who gave you that ‘umeke?

VH: [thinking] Keli‘ihananui.

KM: Beautiful!

VH: He lived down at Pālāwai. He only had two horses, and they used to come up, he and his wife would come up. We used to have prayers there at our house. They liked to come up. It’s a long distance. So he would be on the horse and make his wife walk [chuckling]. We used to think he was a terrible man to do that, and my mother used to tell us “kulikuli, he knows what he’s doing.”

KM: So Keli‘ihananui brought that calabash.

VH: Keli‘ihananui brought that calabash.

KM: How did he carry it?

VH: He was carrying it… [thinking]

LK: Was he on the horse?

VH: That’s right, he was on his horse and brought that up. He carried it in front of him, as he rode the horse up.

KM: Amazing!

VH: But that was the only settlement down at Pālāwai. And he was the historian, he knew everything. He and his wife used to come up, he would be riding the horse and make his wife walk.

KM: That was up to Lālākoa?

VH: Yes, to Lālākoa. We moved away from… we lived in Kō‘ele first, and when the ranch brought that, the folks built Lālākoa. Lālākoa was built by the boys from Lahaina luna.

KM: Oh!

VH: There were no carpenters in those days.

LK: They built both the church and the house.

KM: That home was built by students from Lahaina luna?

VH: Yes. They come over, yes.

KM: This is a small photograph not as nice as yours up there of the Lālākoa house [Figure 40]

Figure 40. “Gays Ranch” Family Home at Lālākoa, March 28, 1924 Army air Corps, 11th Photo Section (HAPCo Collection – Lāna‘i Culture & Heritage Center)

VH: Yes.

KM: I see your yard is all fenced in.

VH: All along here this big yard back there, and pine trees. And that’s all pineapple [indicating the area outside of the yard, surrounding the house].

KM: Yes. There’s other smaller houses behind your house?

VH: Yes. They’re for the working people.

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KM: For the working people.

VH: Yes. All back there, that was a stable-like area [indicating the structure at the upper right hand, back of the large house].

KM: That's the tack house.

VH: Where we kept all our equipment and the trucks.

KM: Okay. Who was living back here. Who lived here when you were a child? Who lived in the other houses?

VH: [thinking] Many of the Hawaiians lived down at Keōmoku. When we moved up there, many of them wanted to work. They were short of laborers and the folks brought them up and built some homes in the back for them to stay.

KM: ʻAe.

VH: There were a couple of Japanese, but mostly Hawaiians.

KM: So it was the families that lived at Keōmoku, some of them came up with you folks to work?

VH: Yes.

KM: Now it's very important about the photograph you were showing us. What is all this?

VH: That's all pineapple.

KM: So is this the pineapple that your father planted?

VH: Yes, we started the pineapple on Lānaʻi.

KM: I see! Were you still living there?

VH: Yes, we lived here.

KM: Okay.

LK: Tell him what you girls did. What did you folks do in the pineapple field?

VH: We sold it. We took it down to Mānele and sold it to Flemming. Mr. Flemming way up in… [thinking].

KM: Yes, yes, Maui, Honolua.

VH: Yes. They couldn't get enough pineapple. Our pineapple was so good that they wanted our pineapples.

LK: Didn't you have to take it to Maʻalaea, and then to Haʻikū, the pineapple?

VH: Yes, yes.

LK: I think what happened is they wouldn't take it in Lāhaina anymore. This is how it all goes downhill, they would have to ship it to Maʻalaea and then truck it to Haʻikū. By the time it would get to Haʻikū it was spoiled.

KM: ʻAuwē!

LK: Tell him how you and Aunty Violet used to work in the pineapple fields.

KM: Did you work in the pineapple field?

VH: We drove the truck. [slaps her hands] Violet and I had to drive the trucks.

KM: In these fields here?

VH: Yes. We worked down there, but generally we drove the two trucks, we had a Federal and we had an Avery. Sometimes we needed the men to be working and somebody had to drive. So Violet would drive one and I would drive one all the way to Mānele [Figure 41].

Figure 41. Charles Gay with Avery Truck at Mānele Landing (Gay Family Collection)

KM: Wow!

VH: Yes. The scow would come and pick up the pineapples and took it over to Lāhaina, and over to where Flemming had the cannery.

KM: Okay.

VH: That was very hard. We lost a lot of pineapple, Lāhaina is very, very hot so is Mānele, very hot. We had to move them as fast as we could. We'd drive down there with two trucks. Our family all worked out in the yard with our laborers.

KM: Yes. So your father started the pineapple on Lānaʻi?

VH: Yes, that's right.

KM: Do you remember what year about?

VH: [thinking]

KM: It was before she went to Punahou.

VH: [thinking]

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LK: In 1916, but you see when they were driving the trucks they were teenagers.

KM: So was this the first area of pineapple that your father planted? This was Lālākoa?

VH: Yes. Not only that, but we had extensive lands over towards this area here going towards Kōʻele.

KM: Yes.

VH: That was all pineapple. [Figure 42]

KM: Nininiwai. Do you remember Nininiwai?

VH: Yes.

Figure 42. Gay Family Pineapple Fields at Nininiwai – Kōʻele in the Background (Gay Family Collection)

KM: The flats towards Kōʻele.

VH: Yes, yes.

KM: From Lālākoa across to Kōʻele.

VH: A short distance.

KM: Yes, okay. That was your father's pineapple?

VH: Yes.

KM: How about to Pālāwai? Were they planting?

VH: No, Pālāwai we didn't have any.

KM: Okay.

VH: Around here, that's all we could manage. All of this area was beautiful pineapple.

KM: Yes. Wow! Beautiful!

VH: We were the first ones, it was good, and it was our pineapples that made them to… [pauses]

KM: James Dole and Hawaiian Pineapple think about it?

VH: Yes. So dad, we had a heavy duty launch, and then the scow would come into Mānele, we had to do this fast because it was very hot down there. We cannot take it down there and leave it. It's got to be taken down there early and it got into the scow and pulled open all the way to Lāhaina where it got truck and over to Flemmings'. Flemming is the one that had the cannery.

KM: Yes. So interesting. I didn't know that you had planted pineapple all around here. That's amazing!

VH: Oh I tell you, beautiful pineapple…!

Yes. This was a very cool section here [indicating the Lālākoa vicinity]. When we took your pineapple down there [Mānele], you had to make sure that the people were coming to pick up the pineapple would be there. That Mānele was so hot.

KM: You were going right off of the old landing at Mānele.

VH: Yes.

KM: And a scow would come in? Were the pineapple in boxes?

VH: Boxes.

KM: You would have to load them.

VH: In the trucks. We had the large Avery truck.

KM: Yes. The road was quite steep wasn't it?

VH: Well, no. There was a [indicates the road cutting across at angles, going down slope]. It didn't go down straight, it was too steep [chuckles]. It was curved, and it was pretty well kept up.

KM: You drove a truck all the way down, you would drive the truck?

VH: My brothers and I took turns. No problem.

KM: Wow! Amazing!

VH: We always had a man drive the Avery, we drove the Federal. That was easy to drive.

KM: Amazing!

VH: The pineapple had to go, it was ready it had to go. We had people, and we all helped pick the pineapples.

KM: In your time, when you were picking pineapple was it mostly Hawaiian families or were there some Japanese families too and you folks.

VH: Yes, we had several Japanese. My folks preferred Japanese workers [chuckles].

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KM: Were there no Filipino workers?

VH: No.

KM: Not at that time. It was the Hawaiians and the Japanese families and you folks, that were working.

VH: Yes.

KM: How interesting!

VH: You can't beat those Japanese, they were no nonsense people.

KM: Yes…

Now, here's a nice photograph… Do you recognize that? [Figure 43]

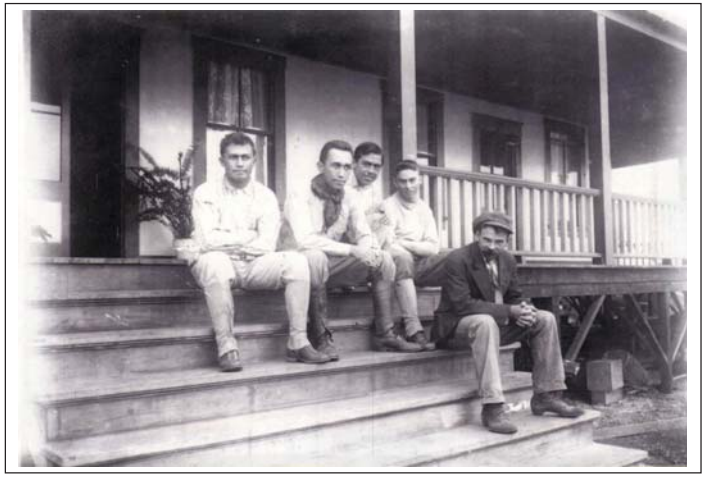

Figure 43. Family and Friends on Porch at Lālākoa House (left to right) Ernest Gay, Lawrence Gay, Roland Gay Bill Paris, and Writer, Alexander Hume Ford (on lower step (Gay Family Collection)

VH: Oh yes. This is Alexander Hume Ford. He was a newspaper man.

LK: I think so. Isn't he the founder of Outrigger Canoe Club.

KM: Oh. Sitting down with the cap on, Alexander Hume Ford?

VH: This is my older brother, Lawrence.

KM: I see.

VH: This is my second brother, Ernest.

KM: Ernest on the left.

VH: That's Roland back there. And this is a friend that used to come and visit—they were all Punahou people. Used to stop off, the Paris family from Kona. P-a-r-i-s. This one here.

KM: Yes. So the Johnsons and Paris'. It's Alexander Hume Ford, and on top [right to left], is the Paris boy, Roland.

VH: My brother Roland. This is Lawrence the oldest, Ernest. This brother [Ernest] finally moved away and lived in Sacramento and had his own rice fields.

KM: Oh! And what house is this?

VH: This is… [thinking] looks like Kōʻele. We had big homes, one in Kōʻele and one down at Keōmoku. We all went away to study. After they finished Punahou they went away to study farming. They all got involved in planting rice. But Lawrence never stayed back there. Roland came back and settled on Kauaʻi, he had his own private interest. But he [Ernest] continued to live in California. His home was right in the midst of the rice fields…

KM: …was Lānaʻi very dry or were there regular rains?

VH: You always depend on rain.

KM: Always depend on rain.

VH: Always on the rain. And we had a rainy season so we had a reservoir. We also had tanks.

KM: This photograph of Kōʻele shows you one of the reservoirs.

VH: The reservoir, yes. And that was for the animals, just to be sure that we had a supply. There were several reservoirs.

KM: Do you recognize, was this the school house? Do you remember?

VH: That's probably the school house. The school house was very small and very few people.

KM: You had mentioned earlier that George Munro came to Lānaʻi?

VH: Yes.

KM: He wasn't working for your father?

VH: No, no. My father finally sold much of it.

KM: I see.

VH: And just kept working with what he needed. So George Munro was hired by the Lanai Company to come and take care of their place.

KM: Okay.

VH: And it was all mostly ranch lands.

KM: I see. So your father when he was growing pineapple?

VH: Yes.

KM: Was your father still ranching or he wasn't ranching already?

VH: Very little, no ranching. He had a ranch down at Keōmoku, there's lot of kiawe beans and things like that. Ranching was not going to make it, it was pineapple.

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KM: Yes. So when Lanai Company bought out part of your father's interest?

VH: Yes.

KM: That's when George Munro came over?

VH: Yes.

KM: I see. George Munro, we were talking earlier about these Norfolk or Cook Island pines.

VH: Yes. He planted lot of pines. All along the mountain side, he planted so many of the pines. They looked…you look back on the mountains you'd see them right at the fence line.

KM: Do you know why he planted all of those pine trees?

VH: It was to catch the rain.

KM: Yes. So the clouds like that?

VH: Yes, the clouds.

KM: It was quite dry?

VH: It was quite dry, but it rained a lot.

KM: You knew when the rains?

VH: It rains a lot. Much of the water went into the water tanks.

KM: Right, okay.

VH: We had water tanks too. Right around our house [Lālākoa] to catch whatever water. It was a great place for rain, and at that house we had gutters all the way around the house to catch the water, and ran right into a huge tank. That area of Lānaʻi always had lots of rain.

KM: Beautiful, nice! Did you use to go into the forest sometimes?

VH: Yes, we knew this island well. We used to hike all the way in back of our property to those mountains all the way, Lānaʻi Hale. We used to hike up there. And Munro himself, always had some trails, all along the mountain side. All the way to the end. Come back and the trail would go on to Kōʻele.

KM: ʻAe.

VH: People could go up, beautiful hiking country!

KM: Beautiful!

VH: You could look out to Maui, Kahoʻolawe, when you get up, they call that section Lānaʻi Hale.

KM: ʻAe.

VH: It was long walking, from our house we would walk up and climb up the mountains and get on the ridge and then walk all along the ridge to the end of the ridge. The people over at Kōʻele would do the same thing.

KM: Did you ever gather plants to make lei, fern or maile or anything?

VH: Yes. There were lots of palai fern, there were lots of maile. We were taught never

to—don't go and get those things when there's no reason.

KM: I see.

VH: There was a reason you wanted to make a lei, when guests were coming. We always had palapalai right near the mountain side. When we had guests coming we had palapalai.

KM: Beautiful!

VH: Lots of maile up in the valley. Easy to get to. Here was our house, we had pineapple all along, and then the mountain side.

KM: Yes. So right in the mountain, just behind your house?

VH: Yes.

KM: Beautiful! You didn't go and just make any kind then, you would go only for special occasions?

VH: Yes. You just don't go up there and pick the ferns and things like that. For what? Some people, we used to have guests coming up, they wanted to go up, they come back with a lei around their head. But my folks never allowed us to do that. "Don't go and get it if you're not going to…if it's not necessary to use it."

KM: Yes.

VH: So, whenever we had guests, coming "alright, for the guests."

KM: ʻAe [chuckles].

VH: We were real old fashioned family.

KM: Beautiful! Did you ever hear any stories about Lānaʻi? About legends, like Kalaehī or Kuleana?

VH: Oh yes, yes, we used to have those legends. In fact all those legends were printed.

KM: Yes.

VH: The school teacher that we had, right next to our home in Keōmoku, there was the public school. She collected all of those for the children to read. Otherwise they had no way of knowing that there existed such a place.

KM: Do you remember, like Puʻupehe? You know by Mānele, the little island, rock.

VH: Yes, Puʻupehe.

KM: Did you hear a story about it at all?

VH: The only time we'd go there is if it's calm to get ʻōpihi. Oh, it's a great place for ʻōpihi, on the rocky place all around there. There was lots of ʻōpihi down at Mānele Bay and all along the stretch. That was an easy place to go around that, and at Puʻupehe you could crawl when it's low tide go there and pick ʻōpihi…

KM: Tūtū, if you go to Kaumālapaʻu, to the harbor.

VH: Yes.

KM: Do you remember there's a blow hole for the ocean.

VH: Yes, I remember that.

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KM: The blow hole they call it "Puhi o Ka'ala."

VH: Yes.

KM: Because a chiefess…did you hear a story?

VH: Yes. The cave there, all kinds of history [chuckles].

KM: When you were young you were still hearing some of the stories of Lāna'i?

VH: Yes.

KM: Now, something that your brother Lawrence wrote about, it was very, very interesting, there was a small canoe that was found[10]. Do you remember?

VH: Oh yes. What's the story of the canoe?

LK: It's a model.

KM: A model canoe.

LK: And supposedly it was set out and sailed, and they would race after it. And whoever retrieved the canoe brought it back was the winner of the canoe race.

VH: Yes, yes.

LK: It's like a canoe race.

KM: So Tūtū, did you ever see those small canoe?

VH: Yes.

KM: Wonderful!

VH: We had it in our house for a long time.

LK: I have it.

VH: You have it?

LK: Yes.

KM: Oh! Wonderful! For the family. Good!

LK: I have it.

VH: If you want to see it, you have to go down with her.

LK: You may.

KM: Oh wonderful.

VH: Will you invite me down! [chuckling]

KM: Beautiful! Those are wonderful stories about Lāna'i, the history.

VH: Yes. We just take it for granted, we grew up there, I was born there down at Keōmoku. There was quite a settlement there, we had two churches down there. One was Ho'omana Na'auao Church, a Hawaiian church. But most of the Hawaiians that worked for us came to our church, Lāna'i Hale. Lāna'i Hale was named after the mountain there. You could see it from Moloka'i, you could see it

[10] The model, of a double hulled canoe, formerly belonging to the Makole Princesses, set off into the sea from the Honopū-Nānāhoa vicinity (Gay, 1965:51-53). The canoes and a large kou 'umeke, were kindly returned to Lāna'i for care at the Lāna'i Culture & Heritage Center in 2016.

from Lāhaina. And what we used to marvel at was, in most of these Hawaiian churches you had benches, we never had, we had individual chairs [chuckles]…

VH: …But we were taught to respect, whatever history that you know about the place and leave it as that.

KM: Beautiful!

VH: Yes. People are interested, see. To us it's all…it happened. And if we don't talk about it nobody will ever know.

KM: That's right. Nalowale…

VH: Yes. We lived it.

KM: That's right.

VH: I was born on that island, I was born down at Keōmoku, my sister Violet was born up at Kō'ele.

KM: And kupuna, you are the oldest person from Lāna'i now, I believe. There's no one as young as you on Lāna'i.

VH: [chuckling] Brother Lawrence wrote a nice little book.

KM: Yes, it's a beautiful book. Thank you so much!

Real quickly, when we met in December and were talking with the family, we spoke about the place called Kihamāniania by Kō'ele.

VH: Yes.

KM: This is the ruins of the old stone house at Kihamāniania. It was built by the 1840s, but they started it as a church meeting house in the 1830s.

VH: Yes.

KM: Did you ever go over to Kihamāniania? Do you remember?

VH: I can remember that.

KM: Okay. This is the ruins of the stone house. There are old family graves there.

VH: Yes.

LK: Kihamāniania is where?

KM: Kihamāniania, Kō'ele is here, Kihamāniania is just on the side and then Nininiwai going to Lālākoa.

VH: Yes.

KM: I can show you on the map. That's right, Nininiwai is the reservoir where the pineapple, yes.

VH: I remember Nininiwai and Pālāwai, and all those places.

KM: Yes, down.

VH: Pālāwai was a huge basin, and the Hawaiians who lived there before had beautiful mango trees. We'd ride down there to go get mangos.

KM: Oh.

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VH: We hardly grew any mangos in our own yard, we'd go down there to Pālāwai to get.

KM: You had also said that Keliʻihananui lived down there?

VH: Yes, yes.

KM: And before, it was a Mormon settlement?

VH: Yes.

KM: All of the Hawaiians that were going to come for that.

VH: The Mormon settlement really started some very progressive work. But they were all gone in our time.

KM: Yes, that's right… Do you remember, did your father them have pipes laid from Maunalei to bring water out?

VH: They did that to furnish water, the water basin were all up at Kōʻele and Lālākoa.

KM: Okay.

VH: So the pipe would have to come through the mountains.

KM: The pipe came through the mountains. Who made the tunnel? Did you see the tunnel, the pipes that went through the mountain over to Kōʻele? Do you remember the tunnel?

VH: The ranch people. My dad had his own lands too. These people were experts, quite often they hired the boys from Lahaina luna to come in and lay those pipes.

KM: Lay the pipes.

VH: Yes.

KM: Do you remember a tunnel that came from Maunalei to Kōʻele in the mountain that the pipes were laid in?

VH: Maunalei?

KM: From Maunalei to Kōʻele.

VH: Yes. That went over the mountain.

KM: Yes.

VH: That went over the hill.

LK: Tunnel?

VH: Yes, there's some tunnels. The tunnel went right through the hill.

KM: Yes. Right through it. Did your father have the tunnels made or were those made…?

VH: It was already made. Engineers that were hired to come to Lānaʻi to do that. That was done. They brought experts, some were from Lahaina luna, sometimes they hired some of those boys to come here and work.

KM: Like Robert Cockett. Do you remember Robert Cockett?

VH: Yes.

KM: I know that he came from Lahaina luna, he worked the windmills like that, engineering.

VH: Robert Cockett.

KM: Yes.

VH: Yes. They were all old-timers. Not only from Keōmoku but they had relatives down at Pālāwai.

KM: Yes. Mikala's…

VH: His parents-in-laws were from Pālāwai.

KM: His in-laws.

VH: Yes.

LK: How about the Hale Kupakako

VH: The Hale Kupakako is the main office. Where the records were all kept. Where you went to get your pay check, Hale Kupakako.

LK: It was right across your house? Near your house at Keōmoku?

KM: At Keōmoku?

VH: Yes, Hale Kupakako, yes. And there's one up Kōʻele.

KM: This was your father's work office area at Keōmoku?

VH: Yes. He had his own…

LK: One there, and there were a couple.

VH: …And the ranch had. We lived at Keōmoku and our boats landed twice a week. The mail all went over there to the post office and we collected and it came across there.

KM: Did the mail get collected here at Hale Kupakako and then went to Lāhaina?

VH: Yes. Most of that mail went over to the Cocketts and then some up to Kōʻele. They had good mail service. There was always boats running, especially from Lāhaina to Keōmoku.

LK: It took me a long time to figure that one out, "kupakako," "super cargo."

KM: Oh, yes, thank you.

VH: Somebody from up mauka would come down and pick up mail bags and take it up, by horse back.

LK: Isn't this where Kenneth Emory stayed? Didn't he stay in the Hale Kupakako?

VH: Yes [chuckling].

KM: Oh!

VH: Emory did some research. He stayed in that place, Hale Kupakako was right next to our home. And there was one up mauka. There was our house, and Hale Kupakako was over there. Namilimili and Kahihikua had a room over there, when they would come up, they would stay there. There was a bathroom and everything. So anybody that came would know that they could go and stay.

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Anybody could go and stay there. First come, first served. There weren't too many travelers. The place was always available. So funny, Hale Kupakako, that's the name of the place.

LK: It was like an office.

KM: Yes, that's so interesting. You know, you talk about the boats going between Lānaʻi and Lāhaina, and your church, Lānaʻi Hale. Aunty Lei told me yesterday that the organ from your church…

VH: Yes.

KM: … went mauka. She said they took it by boat from Keōmoku to Mānele and then up the road. They all went together…in '35.

LK: Oh! That happened after they left.

VH: The organ finally went up to… [pauses]

LK: It went up to Kōʻele, to the church.

KM: Kōʻele church [Ka Lokahi].

VH: Yes. My father, he was an organist.

KM: Oh, your father played the organ?

VH: Yes. We had a mountain house he had an organ there. When we had family services there on a Sunday, he didn't play the piano. His organ was about as big as this [indicating the table], up against the wall. [mimics playing the organ, looking over his shoulder]. He was looking over there, "Iesu no ke Kahuhipa." [chuckles]

KM: Oh, that was one of the songs that you sang, "Iesu No Ke Kahuhipa."

VH: Yes, "Iesu no Ke Kahuhipa," that was our favorite.

KM: Okay. Kupuna, I was going to ask you, if you remembered some hīmeni that you sang. How does "Iesu No Ke Kahuhipa" go, the song?

VH: The songs we sang. I have to think about that. I can't think of it right now. We sang all kinds of songs.

KM: You did himeni?

VH: The cowboys used to come and serenade.

KM: Oh!

VH: Yes. They came and serenade every New Year's or Christmas Eve. They came to serenade, they sang all these Hawaiian songs.

KM: Did you have a favorite song on Lānaʻi that you remember?

VH: No, we just enjoyed all of them. But we liked "Iesu no ke Kahuhipa." [chuckling]

KM: ʻAe. In church. Kūkū, [singing] Iesu no ke Kahuhipa…

VH: [singing] "Iesu no ke Kahuhipa, Kahuhipa maikaʻi e. Eia mākou ka ʻohana, ke hoʻolohe a hahai. E aloha, e aloha, alakaʻi a hānai mai…" Lead and feed us.

KM: Yes, yes, beautiful!

VH: We had our own church there.

KM: Yes…

VH: Reverend White was a minister, we would come over. All these people would come over, we had one guest room. As big as this family was. We children all had a dormitory. My brothers had their own room. We used to over flow. Mother always said, "That one room was for guests." We never knew when we were going to have guests. Next thing we know, the boat is coming back, our boat.

It always went over, and my brother Lawrence ran our launch, with some of the Hawaiians. They'd get over there, and people would say, "We want to go over there." The company also had a launch. The company, Mr. Munro, would not allow anybody to come on that boat. But these people would come to the Gays boat. And my father used to say, "If they want to come, let them come." Sometimes they would always get on our launch to get across. And once you got over there, there's no hotel.

KM: Of course, yes.

VH: So the Hawaiians were always ready to let them come and stay. We had many of those people that arrived without notice. But we always had one guest room there all the time. Not only that, some of us had to move, so they could use the room, we'd have to double up. Real old fashioned, full of hospitality.

KM: Yes. Beautiful!

VH: Sit down, we all eat.

KM: Nui ke aloha.

VH: [chuckles] That's the way it was, yes. You never turned anybody away. People were always curious, they wanted to come, but there's no place to stay, there was no hotel. It was long afterwards when the pineapple people had the hotel up there. During that time out in Keōmoku, the only place you could stay was at our house.

KM: ʻAe.

VH: And there was no problem to double us all up, so the guests could have a place [chuckling].

KM: That's wonderful! And the Kupakako?

LK: Hale Kupakako, it took me a long time to figure that out.

KM: Yes.

VH: That's the way it was. My brother who ran the launch, he could only take so many. He was always aware, they're coming they are going to stay our house. Maybe two or three people, we'd find room. My brothers had their own room and they had two with double beds in their room. And the guest room. We had a dormitory like, and my father had their own room. It was just amazing how we would find room for them. Anybody that came, we found room for them.

KM: Beautiful!

VH: There was no hotel. My folks never wanted them, anyone to come and send them to the Hawaiian homes. They never wanted them to sponge off of them. It

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was alright to do it here at our house, but not for the Hawaiians.

KM: I see. So they were actually taking care, making sure that the Hawaiian families didn't get imposed upon almost?

VH: Yes. Hawaiian people were always ready, but sometimes they had their own guests.

KM: That's right. And food, you couldn't grow a lot.

VH: I never heard of such a thing as being hungry, or not enough food or anything because there was always. We had several farms and a piggery. Always lots of sweet potatoes, always corn, there's poi. We'd get the poi from Lāhaina. If they ran short of poi there's sweet potatoes.

KM: Yes. They were growing sweet potatoes down at Keōmoku?

VH: Yes. That was one of our crops, and our crop was to feed the pigs. [chuckling]

KM: Feeding the pigs sweet potatoes.

LK: And watermelons.

VH: They were good potatoes.

KM: Were they the Hawaiian sweet potatoes, do you remember? Do you remember any of the names?

VH: I don't know the variety. I think there were two or three varieties. People used to write my dad to see if they could have cuttings of this, cuttings of that. My father was related to those Niʻihau people, the Gay and Robinsons. Over there the Hawaiians, Robinsons were very strict. Whatever they grow, it's for themselves. No such thing as…people are prohibited to go there to visit those Hawaiians.

KM: Yes…

VH: …That was the way we grew up on Lānaʻi, everybody shared.

KM: ʻAe.

VH: It was a small community.

KM: Do you love Lānaʻi?

VH: We loved it, and I was born there. Only two of us were born on that island.

KM: One hānau, beautiful!

VH: I was born down in Keōmoku, and Violet was born at Kōʻele. It's our island.

KM: ʻAe. Kūkū, thank you so much!

VH: For what?

KM: For talking story!

VH: [chuckling]

KM: For sharing your memories. It's so important! Mahalo nui!

VH: Well, it's nice to let people know how we lived. Somebody always wants to know how could they live? They go down there and look at Mānele, "Oh, who could live here, what kind place is this?"

KM: Yes.

VH: They don't stop to think that there's lots of salt right around the bend.

KM: And lots of history! Mahalo nui!

VH: We loved it! When I look back, there was no problem. Our boats ran twice a week to Lāhaina. They always came back with a barrel of poi, bags of flour, or whatever, whatever, whatever. We had sort of a store room with all the things in it.

KM: Yes.

VH: And everything, there was nothing on Lānaʻi other than eating on the land.

KM: Beautiful.

VH: Yes. And the ocean was full of fish. It was nothing for some Hawaiian to go and throw his net and come back with a school of mullet or moi or pāpio, whatever.

KM: Yes. And would you gather limu?

VH: Plenty limu. The green limu, and the other places kala.

KM: Līpoa?

VH: Yes. All kinds of limu all along the shoreline.

KM: Yes.

VH: Places where the rocks ran out into the ocean. Get crabs.

KM: You would go after pāpaʻi, crabs?

VH: Yes, no problem.

KM: You chase after pāpaʻi?

VH: Yes. Except ʻōhiki, we never ate ʻōhiki.

KM: Why?

VH: That was the crab that ate a lot of rubbish, so it never should be eaten.

KM: Yes. So your mama told you not to eat ʻōhiki?

VH: Yes. All the other crabs, yes.

KM: Alamihi.

VH: Alamihi, yes. And those little ones… There were lots of places where you could get these crabs and things like that. All in the outlets along the beach there, up to Maunalei. There was always an outlet there, the rocks and everything. All you have to do is turn around some of them and you'd find something.

KM: Yes. How about ʻōpae?

VH: ʻŌpae, that's closer into land.

KM: Yes, by Kalaehī where the water comes out.

VH: Yes, you just have to have a scoop net.

KM: Yes. You would gather all of those things.

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VH: That's all, but you just take what you need.

KM: That's right, yes. Leave the rest…

VH: The Hawaiians loved to eat that raw, but we liked to dry it.

KM: Yes.

VH: Take home and put some salt on it then dry it.

KM: 'Ae.

VH: Yes, that's some of our life time.

KM: Yes. But what you were saying tūtū, "Just take what you need."

VH: Yes.

KM: No waste.

VH: No waste, you never leave anything on the table. No waste, my mother taught us whatever you put on that plate, you finish that. We always had a bowl of poi. Each one of us had a bowl of poi…

Helen HirokoTamura Onuma
February 18, 2006
Lāna'i Oral History Interview Program
with Kepā Maly

Helen Hiroko Tamura Onuma (Figure 44.) was born at Keōmoku Village in 1922. Her father, Ichiro Tamura (called Murata by Lāna'i Hawaiians), first came to Lāna'i around 1900 when Maunalei sugar Company was operating out of the Keōmoku-Kahalepalaoa region. After the Maunalei Sugar Company went bankrupt, the elder Tamura remained on Lāna'i and worked for the ranch as a handyman, and in other odd jobs. Her mother, Ayako Sumida, was a "picture bride" who came to Lāna'i in 1921.

Figure 44. Helen Hiroko Tamura Onuma (Photo KPAS_3212)

Growing up at Keōmoku, Aunty Helen's playmates and early life was connected to all the Hawaiian families of Lāna'i. In ca. 1929, she moved up to Kō'ele and lived with the Abe family on the ranch, and attended classes at the Kō'ele School. In ca. 1933 her entire family moved up to Kō'ele, where her younger sister was born, though her father remained in the Maunalei-Keōmoku are for a time, making honey and doing ranch work.

During the interview, Aunty Helen shared her memories of life at both Keōmoku and Kō'ele, speaking about families, operations of the ranch, how non-Hawaiian families were embraced and became a part of the island community, buildings of the ranch, and activities in which she participated. Aunty Helen, loved to play Hawaiian music and dance hula, and shared her love of the Lāna'i community with all who were interested. She passed away on June 25th, 2014.

HO: I'm Helen Onuma.

KM: 'Ae.

HO: I was born September 26th, 1922 in Keōmoku. Keōmoku town. Right across the Hawaiian church.

KM: You said that your name is Helen Onuma.

HO: Yes.

KM: What was your maiden name?

HO: My maiden name was Helen Hiroko Tamura.

KM: What was papa's name?

HO: My papa's name was Ichiro Tamura. Actually, they called him Murata because it was easier to say Murata in Hawaiian.

KM: 'Ae. I see.

KM: Papa was born, where?

HO: My father was born in Japan.

KM: Yes. What area?

HO: Somewhere around Sen-dai area.

KM: Sen-dai. Okay. When did your father come here? You were telling me that he came, he didn't come straight from Japan to Lāna'i, he went somewhere else too?

HO: Yes. He was working on a ship. I remember he told us he went to San Francisco, toured that area and finally, he came to Lāna'i.

KM: Wow! Did he tell you how he chose to come to Lāna'i?

HO: Well, let's see now. [thinking] I remember in Japan he had family. The last time he said, I heard from my uncle in Japan, that he used to love to travel. He loved to travel.

KM: Yes.

HO: So after he went around San Francisco area he landed on Lāna'i.

KM: Amazing!

HO: Yes.

KM: And he landed down the old landing. Do you remember Kahalepalaoa?

HO: Kahalepalaoa. Yes, that's right.

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KM: About when did papa come to Lānaʻi? Or about how old was he, you think?

HO: Okay, let me see now. My mom came in 1921. Papa was over here already. And then he had his honey bee business. He was manager of honey bees. He raised honey on Lānaʻi, Keōmoku.

KM: Oh.

HO: I remember he used to send ʻem to the mainland, the honey, credit. What he told me is he borrowed money from the bank, First Hawaiian Bank. Two grand, anyway before, two grand. The crate to put in the honey and then he sent it to the mainland.

KM: He was in the honey business?

HO: Yes.

KM: Do you think that he came, if I could just go back to thinking about when papa came to Lānaʻi. If he was born around 1886. In 1900 he would have been 14 or so.

HO: My mother was born in 1900.

KM: So she was 21 then, when she came here.

HO: Yes.

KM: Okay. Your mother was born in 1900, but your father was older than her?

HO: Yes. Fourteen years. He was young when he came to Lānaʻi. (He worked at Maunalei Sugar Company… [see Sugar Company Ledger at Lānaʻi Culture & Heritage Center].)

And what else. He did lot of stuff, you know. He raised watermelons.

KM: Really!

HO: Because he stayed down there.

KM: Yes, at Keōmoku.

HO: Yes.

KM: And you said where you were living… [looking at map]

HO: Where is the church?

KM: Okay. The church is, here's Waiaʻōpae. The map is upside down for me.

HO: Here is Keōmoku.

KM: This is the kahawai. Do you remember the little stream that came down?

HO: Yes.

KM: The kahawai came down. This was the Gays' house here. Remember the Gays?

HO: Yes.

KM: Do you remember Charles Gay them?

HO: I remember. I heard a lot of the Gays.

HO: And I know the Richardson's.

KM: Do you remember the Cocketts. When Rose Cockett and Robert Cockett, Irene's parents?

HO: Oh yes, I knew them very well.

KM: Yes. You remember Irene. Irene them as children were living here in this house here.

HO: Oh.

KM: The church would be right here on the mauka side. The Hawaiian church you said.

HO: Yes. Right there is the church.

KM: Yes.

HO: And had so many houses.

KM: That's right so there were houses.

HO: Yes. And in one of the houses I was born in.

KM: You were born in.

HO: Yes.

KM: On the mauka side of the trail or makai?

HO: Makai.

KM: Makai, below. Okay. Where the church was, just below the church you said…is that the house you were living in?

HO: Yes. Somewhere around there.

KM: Okay. Who was living by you then, when you were a child?

HO: Kahaleanu.

KM: Kahaleanu. If we go from your house towards the Kahalepalaoa side. Who was living by you? You had?

HO: Only I remember Kahaleanus. I don't remember Irene folks. I never did see them while I was living down there.

KM: Okay.

HO: I remember Mrs. Kahaleanu. When my youngest sister was born, she was the mid-wife.

KM: Oh, really!

HO: We were living up at the ranch at that time.

KM: Up at Kōʻele?

HO: Yes.

KM: Okay. Here's another landmark that you remember. The school lot, the Keōmoku school lot.

HO: Yes. The school! I went to school there.

KM: You went to school at Keōmoku?

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HO: Yes.

KM: Who were students with you. Do you remember some of them?

HO: Yes. I remember all. When I was in 1st grade, the Kaopuikis. Solomon, you know.

HO: He passed away. At that time the teacher was Mr. Tashima.

KM: Oh. Mr. Tashima.

HO: He just got out from college, the University of Hawai‘i.

KM: Yes.

HO: And poor guy he used to come Lāna‘i and stay on Lāna‘i. Weekends he used to come to our house.

KM: Oh.

HO: Interesting, yeah.

KM: Yes, yes. You went to school down here at Keōmoku.

HO: Yes. At Keōmoku.

KM: Was it a one room school house or had two rooms? Do you remember?

HO: I remember Mr. Tashima had from 1st grade to 6th grade. Because in the 1st grade you had two or three and 6th grade I remember Lei Kanipae. I told you was Lei Kanipae and maybe, Rebecca.

KM: Yes.

HO: The two. I still remember they were in the 6th grade…

KM: This house that the Kaopuikis were living in. Actually used to be the Gay’s house.

HO: Oh!

KM: The makai house that Charles and Louisa Gay with the family. Aunty Venus…

HO: Venus.

KM: Who’s still alive now. This was their house, but when they left Keōmoku, they moved back mauka to Kō‘ele.

HO: Oh.

KM: And then to their house, Lālākoa.

KM: ‘Ae. We were talking of course, about your papa and a few things. We’re going to talk more about that. Your mama you said came in 1921. Was she a picture bride, or was it arranged or?

HO: Kind of like arranged. I told you they felt she would be good for him because he’s easy going and she’s bright, you know, really. In Japan she wanted to be always, number one in school. I went to visit her parents in Japan.

KM: Hmm. What was mama’s name?

HO: Her name was Sumida.

KM: Sumida. S-u-m-i-d-a?

HO: Yes. Sumida. And you know when she came from Japan, she had all the fancy kimonos. I told you she was wealthy in Japan. She told me, she thought Hawai‘i was paradise, so she came.

KM: Now you shared with me a funny story too about her. That her friends were going to Hawai‘i, to O‘ahu or Maui, and she was?

HO: Coming to Lāna‘i.

KM: She was a little bit shame?

HO: Yes. She said, because nobody goes to Lāna‘i. They haven’t heard about Lāna‘i and Keōmoku and stuff like that.

KM: She told them she was going to…

HO: Maui. And they couldn’t find her.

KM: And all of her friends looking for her, “Where is…” What was her first name?

HO: A-y-a-k-o, Ayako.

KM: Okay, Ayako. Everyone’s looking for Ayako and cannot find her on Maui?

HO: No.

KM: You were the oldest child born to your mother and father.

HO: Yes.

KM: In 1922.

HO: 1922.

KM: Wonderful! Did mama stay at home, take care of house and things or did she go out and work also some?

HO: Well, in Keōmoku she took care of us.

KM: I see.

HO: She had a good friend, Kauwena‘ole. Elaine’s mom’s mom, that’s Elaine’s grandma. [Figure 45]

KM: Her mama, Aunty Maggie was Nakihei.

HO: Because Elaine’s mom was about same age with my mom.

KM: Ahh. At Keōmoku like that, growing up. Did you go to school till 6th grade at Keōmoku or did you come mauka?

HO: I went to 1st grade. You know my mama, she sent me to school up the city.

KM: Ahh. Who did you stay with then? You didn’t go up and down every day?

HO: No. There was a family, Abe.

KM: Abe.

HO: He was a mechanic.

KM: I remember, Abe.

HO: Yes. I stayed at their house.

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KM: I see.

HO: I just went to 1st grade at Keōmoku.

KM: In 2nd grade mama already had you come up to stay with Abe them?

HO: Yes, I stayed with Abe.

Figure 45. Keoni Nakihei, Maggie Nakihei, Ayako Sumida Tamura (A picture bride) and Ulia Nakihei at Keōmoku (Kenneth Emory Collection, 1921)

KM: Then you said, a couple of years later, mama moved up with your younger brother and sisters.

HO: Yes, everybody.

KM: Papa stayed down at Keōmoku?

HO: Yes.

KM: So, did you live at Kōʻele for a while?

HO: Yes, that's right, Kōʻele.

KM: When you moved up from Keōmoku.

HO: Yes. We stayed at Kōʻele.

KM: Maybe it was around 1929, if you were…?

HO: Let me see now. My youngest sister was born in 1933. I was in Kōʻele at that time.

KM: You were at Kōʻele.

HO: Kōʻele. That's when the mid-wife was Mrs… [thinking]

KM: Kahaleanu?

HO: Yes. Because I remember my mama saying, "Go call Mrs. Kahaleanu," because she was ready to give birth.

KM: Yes. Was Mrs. Kahaleanu still living down at the ocean.

HO: Let me see now, Kahaleanu. I think they were living up the city already.

KM: Okay. That was in 1933.

HO: In '33.

KM: What were you doing at Kōʻele? Had daddy moved up already or?

HO: Daddy was working honey and he worked for the ranch.

KM: Lānaʻi Ranch, yes.

HO: Handy man, and I remember he was watchman or something like that at the time.

KM: I see. Was that with George Munro or?

HO: George Munro and Vredenburg.

KM: Oh. Ernest Vredenburg, yes.

HO: Cockett was up there too, maybe.

KM: That's right, Robert Cockett.

HO: Yes, Robert.

KM: Irene's papa, yeah.

HO: Yes.

KM: He took care of the time-keeper and the store like that.

HO: Yes, something like that.

KM: Hmm.

HO: You heard of that too?

KM: Yes. Interesting, yeah. You went to school at Kōʻele then.

HO: Yes. I went to Kōʻele too. It was walking distance from my house.

KM: It's interesting, if we look at this map again. Here's the Kōʻele Ranch area. And you see again, the little school. Here's the school lot over here.

HO: Yes.

KM: The houses were a little further over. You had to walk over to the school, is that right?

HO: Yes.

KM: It wasn't too far though?

HO: Not too far.

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KM: Okay. Was it two rooms by that time? Do you remember, were the rooms separated, or you were still all in one class?

HO: Maybe one or two rooms, I'm sure.

KM: Yes.

HO: I remember where I was living, right close by. My neighbor was the principle's house, Armstrong.

KM: Armstrong.

HO: Armstrong, O'Neill. Mr. O'Neill? Do you remember O'Neill?

KM: No, I don't.

HO: Armstrong. And Mrs. Armstrong was my homemaking teacher at that time.

KM: Oh. Still here at Kōʻele, or were you moving down to the new school already?

HO: Kōʻele.

KM: Did you ever go to this school?

HO: Yes. Down school too.

KM: You went to down school too, oh.

HO: Yes. Because Kōʻele moved.

KM: That's right, they closed the school, yeah.

HO: Yes.

KM: Did you actually finish high school here?

HO: Yes.

KM: You did.

HO: I graduated Japanese School.

KM: Yes.

HO: I used to go Japanese School in the morning from the ranch, walking down.

KM: Wow! All the way… Is it still the Hongwanji or?

HO: Not the Hongwanji. The Japanese school was, you know by the old gym.

KM: Yes, yes. Oh, just the other side.

HO: Yes.

KM: Okay.

HO: I remember, early in the morning.

KM: Oh, hard, yeah.

HO: Yes. But we survived.

KM: That's right.

HO: Like it or not, we just survived. And no cars.

KM: Yes. By that time, pineapple was coming big business already, yeah?

HO: Yes. Let's talk about ranch.

KM: Okay. Good, thank you.

HO: The ranch, I remember they used to slaughter their own animals.

KM: Up at Kōʻele?

HO: Yes.

KM: Had the slaughter house, yeah?

HO: Yes. They had the slaughter house. They had sheep and all that.

KM: Yes. They had cattle?

HO: Cattle, sheep. People used to work hard. Mr. Vredenburg was the boss at that time, supervisor or whatever. My father is just the handy man.

KM: Yes.

HO: He was the watch man one time. I can tell you something… [chuckles] There's no union, you know what I mean, no union.

KM: Yes.

HO: When came slack, no job, they laid my father off too, one time. But at least he can work Keōmoku side, part-time.

KM: Yes.

HO: Anyway, we had hard life in those days.

KM: It was. Yes.

HO: But we did, survive. And the part is we did our shopping… I don't know what area, but we took the boat, go to Maui, Lāhaina.

KM: Yes.

HO: Was shorter than coming up the city.

KM: So from Keōmoku?

HO: Right.

KM: You would go to…

HO: Lāhaina and do the shopping.

KM: Lāhaina and shop because it was easier than going.

HO: Yes, faster.

KM: Yes, faster. I guess no more one hour to get to Lāhaina from Keōmoku, less than that?

HO: Yes. Because Keōmoku to up the city… We all had our own horse you know.

KM: Yes.

HO: My daddy, my mama, I had one, my sister had one, five. And then sometimes we'd come up the city with the horse and we used to get blisters all on our

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‘ōkoles [chuckling].

KM: [chuckling]

KM: Yes. Long ride and hard ride because it’s going uphill.

HO: Yes.

KM: Was the trail pretty bad, rough?

HO: Yes. Partly.

KM: Yes. You can see the old trail here [pointing to locations on map]. Here’s Keōmoku again, where you folks were living like that. You can see the lines marked. The trail comes out past Maunalei and you see how it turns up.

HO: Wow.

KM: It goes all the along to these places up here. This area here, would be where the Munro Trail, the cemetery is like that.

HO: Okay.

KM: You come around the bend and go around like that. It was a long ride I bet.

HO: Yes.

KM: Who was the captain of the boat when you folks would go to Lāhaina? Do you remember?

HO: [thinking] Let me see now… I don’t exactly know who was the captain, I think my daddy folks used to do it too.

KM: Oh, yeah. Oh. Did Daniel Kaopuiki, Tūtū Papa them, do you remember, or Keoni Nakihei?

HO: I don’t remember.

KM: Okay. Out of curiosity, since you folks were shopping in Lāhaina at times, and then you were growing a lot of your vegetables and things too.

HO: Yes.

KM: Did you folks sometimes exchange vegetables. Things your father grew for fish or things like that? Did the families exchange goods between one another?

HO: I don’t quite remember. But my daddy was so generous. When people used to come down, city people used to come down. He used to feed them fish and ‘ōkolehao and whatever.

KM: ‘Ōkolehao?

HO: ‘Ōkolehao [chuckles]?

KM: Where’s the ‘ōkolehao coming from?

HO: He used to make it.

KM: [chuckling]

HO: I think in the Keōmoku kiawe tree area. I remember his going in there. I was very young so I cannot… I only remember vaguely.

KM: How interesting. Did papa go fishing too or did he get his fish from the Hawaiian men.

HO: Okay. In those days had lots of fish.

KM: Yes.

HO: When we feel like eating fish, you just go in the evening, just throw net once and you get enough.

KM: Amazing! Right in front, by your house?

HO: Yes.

KM: You know when you go down today. You look where the houses were. You remember the boats that were on the sand beach that were… Now, you go from where the boats were, the shore from where you were a child. Hundreds of feet past there.

HO: Is that right?

KM: All the mud has been washing down from the mountain.

HO: Oh.

KM: What you said, you could just go from your house, right out to go fishing?

HO: Yes. Not too far…

KM: Yes. And it wasn’t all kiawe like now right? Not thick?

HO: Yes, I don’t think so…

KM: …So when you came mauka?

HO: Mauka.

KM: To Kō‘ele.

HO: Kō‘ele.

KM: After Kō‘ele where did you move to?

HO: After Kō‘ele, I moved to that Chinese camp, below…

KM: What kind of foods were you eating? Were you folks eating poi when you were young too? Or when you went to Lāhaina did you buy rice and stuff and bring it home?

HO: When my dad used to go to Lāhaina they used to buy rice and even the crackers. You know the big cans.

KM: The big cans.

HO: And the cookies in the big can. Those days was very reasonable. I remember even the teacher used to buy that.

KM: You folks ate rice? You ate poi sometimes too?

HO: Poi, yes. Poi was very reasonable, not like now.

KM: Yes.

HO: And what else…

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KM: Fish you said.

HO: Fish.

KM: Did you have beef sometimes? Pork, pig?

HO: Yes.

KM: Were you hunting or did someone raise pigs? Do you remember?

HO: I think my dad used to raise chickens too.

KM: Chickens too, yes.

HO: Lots of stuff. We got by without refrigerator.

KM: Yes. Did you used to get block ice sometimes?

HO: I remember one time we had a refrigerator that you had to put in ice.

KM: That's right, the ice box, yeah.

HO: Yes. That was, I remember up the ranch.

KM: Up the ranch.

HO: But Keōmoku I don't remember if we had.

KM: Yes. You folks… I guess you had to salt things a lot or everything was fresh. If you wanted to eat chicken tonight you go kill the chicken.

HO: Yes. Kill the chicken. You like fish you just go and get the fish.

KM: Yes. That's a good way to live.

HO: Good living…

Sam Koanui Shin (with Mary Shin)
March 29, 2006
Lānaʻi Oral History Program
with Kepā Maly

Sam Koanui Shin (Uncle Koa) was born at Kōʻele in 1925. His mother was Hawaiian and father, Korean. His father worked for the ranch, and while growing up, Uncle Koa hung around the cowboys and their families. He always expected that he would be a cowboy on Lānaʻi, and for a short time, he did work the ranch. But when it closed in 1951, he went to work on the pineapple plantation. In this portion of the interview, Uncle Koa (Figure 46) shared memories of the ranch camp, headquarters and buildings, work of the cowboys, and relationships of families with one another.

Figure 46. Sam Koanui Shin at Kihamāniania, adjoining Kōʻele, where is grandmother was buried (Photo KPAC_6198, July 12, 2007)

The interview includes important descriptions of Kōʻele, and also informs us about the occurrence of the last known burial to occur at the historic Kihamāniania Church and School House along the southern boundary of Kōʻele and what is now the Cavendish Golf Course.

KM: …Uncle, I just want to say, "Aloha nui." Mahalo to you for being willing to talk story. We're doing this history project…

SKS: Yes.

KM: …so that we can protect and take care of some of those important places on the land. Lānaʻi is changing so much now. We want to protect and keep some of the histories of your families, so that people will remember that it's Lānaʻi… I'm going to be a little mahaʻoi, I'm going to ask you questions.

SKS: That's okay because that's the thing you have to mahaʻoi little bit.

KM: Mahalo. That's right, yes.

Uncle, if you would please share with me, your full name and date of birth?

SKS: Sam Koanui Shin. My middle name was given to me by a big Hawaiian who knows the lua [Hawaiian martial arts] too. He is a very strong man. He can carry the full barrel, 55-barrell of oil or gasoline, he can lift 'em up and he put 'em on the truck. And my father guys looking down. [chuckles] That's the first time they had this experience down the harbor.

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KM: Oh yeah? Down Kaumālapaʻu?

SKS: Yes. He had asked my father if he can give his name to me.

KM: Oh, yeah?

SKS: Yes.

KM: It's his name too?

SKS: Yes.

KM: Koanui?

SKS: Yes.

KM: And what was this kūpuna's last name?

SKS: Sam "Koanui" Koapiʻimoku

KM: Oh. You said he knew lua also?

SKS: Yes.

KM: Did you hear about lua growing up at all, a little bit or?

SKS: Yes. In high school.

KM: Oh, yeah?

SKS: But I never said anything.

KM: Okay. Were people still using some form of lua when you were a child here on Lānaʻi?

SKS: Nobody knows, they only talked about it. The only thing I know is, just like the Japanese fighters.

KM: Yes.

SKS: That's the thing that we missed out. Maybe if you was there with that man…oh boy, he got lot of stories.

KM: Talk story.

SKS: According to my father what he talked about.

KM: Was this old man Koa, living down, working Kaumālapaʻu or he was going?

SKS: Up the ranch, Kōʻele.

KM: Oh, he was up at the ranch.

SKS: Yes. Used to have around thirty houses up there.

KM: Really!

SKS: Thirty buildings and they had one big fire, fifteen of those buildings went burn down.

KM: Really! Do you recall approximately how old you were when the fire occurred?

SKS: I think I wasn't born.

KM: Oh. Before you were born, okay. You mentioned Kōʻele and you said, you gave me your full name, Sam Koanui Shin. You hānau when?

SKS: March 8th, 1925.

KM: Wonderful! Too good, so actually you just had a birthday. That's right.

SKS: Yes. Just pau. [chuckling]

KM: Yes. Wonderful! So you were you hānau at Kōʻele?

SKS: [thinking] My…somebody. What do you call that, mid-mother?

KM: Mid-wife. Pale hānau they called that.

SKS: But Rebecca Kaopuiki was like my mother too, Richardson.

KM: Yes.

SKS: I hear stories, a little bit here and a little bit there that she used to take care of me. That's why I call her mom too…I asked her, "Can I call you mom." Because the way I see how things was way back you used to take good care of me. My adopted father Shin by my hānai father too. He was a nice man.

KM: Okay. Paha, you hānau Kōʻele you think or Keōmoku?

SKS: No, everybody went move up to Kōʻele.

KM: Okay. You said in 1925. Who was your papa and who was your mama? You told me that Shin was actually your hānai papa?

SKS: Right.

SKS: Kwon Gi Hong. Korean's, they put any kind name, backwards or frontward.

KM: Kwon.

MS: Yes. K-w-o-n.

KM: Okay. Is that why Uncle Bill…?

MS: When they came the spelling was Q-u-a-n.

SKS: My birth certificate well…poʻe haole.

KM: That's right they don't know how.

MS: Writing before, yes. It's Q-u-a-n on the birth certificate.

KM: I see. Papa was Kwon and mama was?

MS: Napuehu.

KM: Napuehu?

SKS: Yes. The last name.

MS: N-a-p-u-e-h-u, I think.

KM: Napuehu?

MS: Yes.

KM: Okay, that's mama. Mama was a native of Lānaʻi? No?

SKS: Kohala.

KM: Kohala. Oh…

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SKS: Yes, mom?

KM: Okay. Is that mama or grandma?

SKS: Mama and grandma buried up here.

KM: That's right. At? Kihamāniania?

SKS: This golf course.

KM: The old church school house right? The stone mortar?

SKS: Right.

KM: She's buried in there?

SKS: Right in the back there.

KM: That's your grandmother or your mother?

SKS: Grandmother.

KM: Your grandmother. Okay. Do you remember your grandmother's name?

SKS: [thinking] Do you have it? [asking his wife]

MS: I don't have the grandma's, the mother and the aunty Shin, Elizabeth according to the birth certificate.

SKS: Brother Kwon and Ethel they know.

KM: Okay.

MS: His sister Mary made the family tree.

KM: The genealogy tree. Oh!

MS: She knows. Some names I told her according to the birth certificate the mother's name, she has a different name and we have a different name.

KM: 'Ae. Interesting yes. That's how it was sometimes even like you said how Kwon is written in two ways.

MS: Yes.

KM: Sometimes they change or maybe someone remembered a different date.

MS: When my great-grandparents came to the islands, you know the writing, lot of people, the pronunciation is Kwon but when they write it down…

SKS: It's a different spelling.

KM: Different style, yes.

MS: They write them as they see.

KM: Since your grandmother was buried up at Kihamāniania, that's the name right where the old church is.

SKS: Yes.

KM: Alongside the old golf course. If your mother was from Kohala, did you hear… Was she born in Kohala and came over with her mother them or? How did they come to Lānaʻi, was it to work on the ranch?

SKS: Yes. Well, according to what I remember they heard stories about that small island. The story is that they reached over her in 1910. He came over from Korea in 1908 so he went to Hilo.

KM: Kwon?

SKS: Yes. To work over there as a plantation worker and in the sugar cane field.

KM: I see.

SKS: There was a group of Koreans that liked to get away from these things. They heard about pineapple and all that and the ranch.

KM: Yes. Kwon came from Korea, went to Hilo and then somehow met your mama?

SKS: Right.

KM: And then they came to Lānaʻi. Your grandmother came to Lānaʻi around that time also?

SKS: Yes.

KM: That means if she was buried up there at Kihamāniania that they were still burying people up there after 1910 or so. You can see in the poho, where the graves are.

MS: All the trees growing.

SKS: The worse trees to grow is the Christmas berries.

KM: Yes.

SKS: We used to go back there and clean, it was nice. But the Christmas berries came in, ahh…

KM: May I ask you folks a question, this has to do with the treatment of those graves as an example. Because that's your 'ohana in there too.

SKS: Right.

KM: Is it your manaʻo that it's important that the graves be protected where they are?

SKS: Oh, yes.

KM: No mess around?

SKS: Yes. So far, nobody did.

KM: Good. What I'm curious about in your thought also though, would it be appropriate if the members of the community and the 'ohana, if they wanted to go up and try to maybe open up, clean out some of that Christmas berry, the iron wood and stuff. So that it could be opened up a little bit, you know, protected.

MS: We don't know where the graves are now.

KM: Some. It's interesting, you can actually still see the stone alignment.

MS: On some.

KM: There's at least twenty-five graves up there. Did you ever hear about the old stone building? Anything about it?

SKS: Stories about the building. All I know is, they just say it's a church. [thinking]

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Nothing more I think.

KM: Okay. There's some tradition about that from the old man Piʻianaiʻa who lived there back in the time of Kamehameha. You'll enjoy seeing the little stories.

SKS: Oh, good.

KM: What was Kōʻele like when you were young, living? Who were the families that you remember?

SKS: [thinking] For my part, I remember the kind of house we get, it's a one wall, single wall type of building. Get the roof on top, no more this thing here.

KM: No more ceiling.

SKS: Yes.

KM: Only the piula you see, the rafters.

SKS: Only the piula over there, yes.

KM: One room? Or did they make walk in kitchen kind?

SKS: I think if I'm not mistaken, we get one bedroom but the kitchen. The kitchen and parlor is all the same.

KM: All one?

SKS: Yes.

KM: And the house. If you think back to now, the size of your living room which is what, maybe 18x20 or something?

SKS: It's about this width.

KM: It's about this, okay.

SKS: About this width. Yes.

KM: About 18x20 or so.

SKS: And then we get one bath house outside.

KM: Oh.

SKS: Concrete. You can ʻauʻau inside there.

KM: The water?

SKS: We can make the kind 50-gallon drum that's how we used to boil water, make fire.

KM: Interesting. Did your water come from catchments?

SKS: From behind the reservoir.

KM: Yes.

SKS: Over there, the one they made. Our water comes from Maunalei plus that valley up there and they put them into… Had two pūnāwai up there, Kaiholena. And then one comes down to that's where the hotel is.

KM: ʻAe. Kaiholena was the valley, I think. And you said Maunalei had? What had pipes I think coming out of Maunalei, yes?

SKS: They had three pipes.

KM: Did those pipes go through a tunnel or up and over?

SKS: Yes. Had three tunnels.

KM: Three tunnels?

SKS: Yes.

KM: Oh. In those days when they did that it was strong, everything. But then one day the third one, that means the last one, collapsed. They went fix ʻem up again. They went inside and dig it all up.

MS: [Aunty Mary returns with genealogy book] According to this book, his natural parents was were Gi Hong Kwon, and his mother was Heuka.

KM: Heuka?

MS: H-e-u-k-a.

MS: And this, Bon Soon Shin, is his adopted.

KM: I see.

MS: Yes.

KM: Oh, I see. Elizabeth Napuehu was?

MS: Was his hānai.

KM: Was hānai mama?

MS: Yes.

KM: I see. And Elizabeth, is this Elizabeth related to…?

MS: Yes. Sisters.

KM: I see. Okay, good. Mahalo!

MS: I keep all this.

KM: Yes, thank you, aunty.

MS: For when they ask you information, "What was that?" [chuckles]

KM: Wonderful!

SKS: That's my secretary.

KM: Lucky we get good wives, yes.

SKS: Yes, terrific.

KM: Kōʻele, your house and you said that at one time there were maybe thirty houses up there?

SKS: Yes, I heard. I don't know if it was during my growing up time.

KM: Yes. Because you think maybe when? Okay. When you were living there about how many houses and who were the families? Who were the families around you?

SKS: A lot of people over there they all come and go you know.

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KM: Yes. I see.

SKS: You know why when they took away that building over there all the ranch and everything. We used to go up there and nānea over there.

KM: That's right.

SKS: And then go over there. Gee, I know where and who stay all the time.

KM: Now, all of your familiar landmarks gone.

SKS: Yes. Tamura.

MS: Tamura and?

SKS: Who's that other one? Oh, Sakamoto, but Sakamoto is more on the late times.

KM: Okay. Tamura, Sakamoto. Other Hawaiian families, some of the Richardsons?

SKS: Yes. The Richardsons. Kauwenaole used to be there.

KM: Kauwenaole.

SKS: John and the Gibsons, Kauakahi down side.

KM: Kauakahi.

SKS: Yes Kauakahi and Henry Gibson.

KM: Okay.

SKS: And the wife, I think she's from the Hawaiian family. Like in those days, Gibson was kind of a big family over here too.

KM: Yes. They were in the early days. The older Gibson was that Walter Murray Gibson who actually came here in the 1861, and started in Pālāwai. He then moved to start the Kōʻele Ranch. It was Gibson and then his son-in-law, Frederick Hayselden Do you remember hearing Frederick Hayselden?

SKS: [thinking] Get that name in that book.

MS: Vredenburg.

KM: Oh, Ernest Vredenburg the manager when you…?

SKS: Yes.

MS: The ranch.

KM: Who else? Robert Cockett?

SKS: The first one was George Munro.

KM: Yes, then Vredenburg came in the '30s?

SKS: Actually George Munro. He was the man that planted all the trees up along the Hale and all that. He was the one that wrote a book about the birds. The Hawaiian.

KM: 'Ae, that's right.

SKS: I used to watch. I used to watch him, I used to sit up on the mountain underneath the trail and all that. I never asked him but now I know what he's doing. He was doing research, finding the birds. Their habitat and all kinds, how they function up

there in the forest.

KM: Yes.

MS: How about Kuʻikahi?

KM: Oh.

MS: Yes, Kuʻikahi.

KM: He was up at Kōʻele too? Because was it Mary Kuʻikahi who was the school teacher or something?

MS: A cook.

KM: A cook, oh. You went to Kōʻele school or did they close it already?

SKS: No. You know why when I was 5 years old, my father sent me to Honolulu.

KM: Oh.

SKS: I lost a lot of Lānaʻi.

KM: I see.

SKS: I stayed there. I go down there for the school year and then summer time I come back here. I ride the Humuʻula, the Hualālai or whatever.

KM: To Kaumālapaʻu or to Mānele?

SKS: If I come straight to Lānaʻi lucky. Sometimes I have to go to Molokaʻi.

KM: Molokaʻi?

SKS: And then go Maui. And they used to load sugar from like say, Kapalua or what do you call that place [thinking]? They get one jumping stone over there, what they used to make a wharf. All the sugar in the bag. They load them on the, we call it the barge and they take it out and put 'em by the boat. And then get the winch, they lift 'em up, all double job.

KM: This is 'Olowalu side?

SKS: No, at Lāhaina.

KM: At Lāhaina, Māla?

SKS: No.

KM: Kāʻanapali.

SKS: Kāʻanapali. Right around there.

KM: Okay. By Kekaʻa, the black rock?

SKS: Yes. Some place around there. After that modernization they took away all those foundations…

KM: And then you landed Kaumālapaʻu at that time?

SKS: Yes, at that time. But we parked outside the boat don't come in.

KM: Little boat comes in.

SKS: Little boat comes in.

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KM: Interesting. You never went to the Kōʻele school?

SKS: No. I went there in [thinking] 1938, I think around there.

KM: Oh… Living at Kōʻele, it was a working ranch.

SKS: Right.

KM: Where were they shipping pipi from? What was the range like that?

SKS: By my time... But if you go back into [thinking] ’38, I don’t know what was the last date of that place they stopped. Oh shucks, I know during the war time we used to make paʻakai down there and make lot of salt.

KM: Down?

SKS: Down Mānele. You know the place the parking area where you drive, you can go down where they had launch…

KM: The launch, the ramp, the boat ramp?

SKS: Right there, all that portion there. From the back side, where you enter.

KM: Yes.

SKS: Had salt boxes all over there.

KM: Mortar, cement kind?

SKS: Yes. Cement. And on top of the hill we had one, two, three.

KM: Ahh. That’s by towards the pipi chute yeah?

SKS: Yes, on top.

KM: And you folks were still making salt in the?

SKS: We used to make salt over there.

KM: Wow!

SKS: Otherwise we don’t have salt for salt our pipi, the hides.

KM: Really!

SKS: Yes.

KM: This is in the ‘30s in the ‘40s still yet? Or in the ‘30s at least?

SKS: They had them in the ‘30s already had some. Few more boxes but the on top one, we made that. Our time.

KM: Wow! That would be after you were an adult already or?

SKS: No. I was young.

KM: Teenager? That’s so interesting. Those salt beds though like the one that’s still up by pipi chute now. That was made later?

SKS: Yes. During the war.

KM: How did you get the water into that?

SKS: We used pump.

KM: Pump?

SKS: Yes. The small kind of pump. We just pumped the water on top the highest one and we let ‘em flow on the other side.

KM: How interesting! Too good! Let me ask you about making the salt then. You had a pipe or something that ran down into the ocean? Right on the pali?

SKS: Yes.

KM: Not far from the pipi chute?

SKS: Right down.

KM: Right there, yes. The pipe sucked the water up. You go into the first bed and then it sloped down?

SKS: High to low.

KM: Like a loʻi, like how the loʻi worked?

SKS: Yes, right.

KM: How long would it take you? Do you remember, how long it would take? And how thick, how deep was the water?

SKS: The water this much you know.

KM: Nine to twelve inches?

SKS: I would say twelve inches.

KM: Twelve inches, okay.

SKS: But sometimes we put less because we needed the salt quick. Then we make. I don’t know how long it takes.

KM: Uncle, that place is all uhi with the kiawe.

SKS: Right.

KM: Must have been pretty much open then? Right? Never have kiawe all the time.

SKS: No.

KM: Was all open.

SKS: All small.

KM: Yes, yes. The salt that you folks made from there.

SKS: When we started the trees were tall because when they started in the ‘30s it was small. Just like our trees…

KM: That’s interesting. Now you folks were specifically making salt so you could salt the pipi up here?

SKS: The hides. And every time when we go up there to take it all out, oh sometimes we get what, two hundred…

KM: Hides, wow.

SKS: No sense you take small load. You take a big load better.

KM: Yes.

SKS: And then we fold them all up, we tie them so it’s easy for…

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KM: Yes. For truck? And then you would put it on the truck down to Kaumālapaʻu?

SKS: Yes. Kaumālapaʻu.

KM: That's interesting.

SKS: Put 'em on the boat and ship out.

KM: In addition to the houses at Kōʻele. And I remember the old Quonset huts, at least a few of them and stuff. There were working buildings, there were houses?

SKS: After the war.

KM: Quonset houses were after the war.

SKS: In 1947, one year after then they brought that thing in, that's what I think.

SKS: They brought the Quonset from Maui.

KM: Maui.

SKS: Up, where Ethel lives?

MS: Hāliʻimaile.

SKS: Hāliʻimaile, that's where had one big marine camp.

MS: They had an army camp over there.

SKS: And Hawaiʻi had too.

KM: That's right, yes, Waimea.

SKS: Kauaʻi had.

KM: That's right.

SKS: They used every island to train all the boys over here.

KM: Yes. Oh. When you were talking about who was living up at Kōʻele and you remembered some of the names. Robert Cockett was there too? Is that right, Robert Cockett and Aunty Rose, Aunty Irene them, Lloyd the brother and the children like that. They evidently had a store up there for the ranch also?

SKS: I know the father was working for the ranch.

KM: Yes.

SKS: But those things were through the ranch system.

KM: Yes, he was working as the bookkeeper, shopkeeper for the ranch.

SKS: Right.

KM: Under Munro and Vredenburg …

SKS: Munro first.

KM: Yes, Munro first. You folks had access to meat from the ranch? Did you folks go hunting for meat at all?

SKS: Hunting, yes.

KM: What kind hunting?

SKS: We get goats.

KM: Goats.

SKS: Deer. Every month we get meat.

KM: The ranch would slaughter some pipi and everyone… all the families would have meat? There was a slaughter house up at Kōʻele too?

SKS: Yes. Down inside that valley where the horse stable is. [Iwiʻole – between ranch and school-golf course]

KM: Yes.

SKS: Then you can see that out there.

KM: That's where the slaughter house was?

SKS: Right on the side. And get the corral where we drive the pipi inside from up the hill down in.

KM: Oh, okay. Wow! You said the Quonset huts came in after. That was all part of the ranch operation. For storage, supplies, like that.

SKS: That one they used for put the horses inside there, and they made stalls.

After that I don't know what happened. Pōhō though, all wasted. Anyway, they don't have that kind of money. The Hawaiian Pineapple Company was the owner of that place.

SKS: We just were… more than they could afford.

KM: Hmm. Where was the range for the pipi when you were a child? When you were a young adult, teenager like that? Where were the pipi running? This side had already turned over to pineapple, Pālāwai like that, right?

SKS: See, wherever they end as they build up, wherever they ended and then below that we put pipi inside there, like down by Mānele.

KM: ʻAe. Below the field?

SKS: And then up by Pānini Patch.

KM: ʻAe.

SKS: You know the hotel when you look up you see that puʻu up there [Puʻu Mahanalua]?

KM: ʻAe.

SKS: All back there. And all back where the… Where the place is open away from the pineapple fields that's where we raised cattle.

KM: Okay. So the cattle were even out like towards Kānepuʻu and?

SKS: All the way out.

KM: Keahiakawelo? Around Mahana below?

SKS: Yes.

KM: Oh.

SKS: And go back this side towards Keōmoku.

KM: Even makai lands?

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SKS: All that, even Naha.

KM: To Naha too? That's right 'cause you can see the trough like that.

SKS: Yes. And you see the big place where they dug all that big water.

KM: Yes.

SKS: So the pipi can go down and drink that…

KM: Yes. So uncle, when you come back, not far from the trail 'Awehi. Yes?

SKS: Right.

KM: Inside there has a beautiful stone lined and the ramp goes down and get water inside. Like you said how the pipi can go down and drink water right? That was from the ranch days?

SKS: Yes.

KM: They would let pipi inu wai down there?

SKS: Yes.

KM: Have you looked at it? You know the place?

SKS: Today, I don't know get so much trees.

KM: Yes.

SKS: Break down and all the branches inside there. But we did go couple of times.

KM: The stone work is beautiful if you remember.

SKS: Yes.

KM: And it's interesting, I don't know if it's kiawe or maybe an old native wood even kauila or something. You know the ramp how the pipi could go down to drink the water. You see there's a beautiful wood log set into the stones…

SKS: And pōhaku.

KM: 'Ae. And then a wood log at the bottom of it to keep the stones in place. I don't know if you remember. We go down holoholo sometime…

SKS: Those things before was so the pipi no pakika [slip]. The pipi go inside the puka, cannot come out, I like laugh.

KM: So the range for the cattle was all over except for where pineapple. Did you folks have to have fence line all around the fields at one time?

SKS: Oh yes. Even we divided the area.

KM: The paddock like that, made divisions.

SKS: You know when you talk about Mānele, there's a stone wall down there.

KM: Yes.

SKS: By the tank. It starts from the pineapple field and then…

KM: Goes?

SKS: The stone wall goes right down.

KM: Yes.

SKS: And them from over there they made a wire fence and goes till the beach.

KM: Wow!

SKS: I wanted to ask around about what's the story about this place, nobody can answer me. I don't know, I was still young.

KM: Yes. They would make those kind stone wall, wire fence to divide paddocks or stuff like that.

SKS: After that they figured a fence line is better because [chuckling] stone is too much job.

KM: Hard job. Out in some of these remote lands like above Kaunolū or towards Mānele or Kānepuʻu like that, how did they get water for the pipi?

SKS: What they did for Maunalei, if you know where the trough 40 is down Keōmoku road?

KM: Okay, trough 40.

SKS: There's one trough but now it's not in use. They put a 2-inch pipe from the top.

KM: At Maunalei?

SKS: Maunalei. They put 'em all the way down next to the road go but they look up the mountain get pōhaku all landslide or something going damage the…

KM: Pipe?

SKS: Pipe. They figured if they bury 'em a little, put stone on top, if it washed out maybe they can…

KM: Yes, yes.

SKS: So not to damage the pipe. All the way down till it comes to one steep place, I don't know how they went start. Oh, they went put the pipe up, go down one at a time.

KM: Oh.

SKS: That stone wall.

KM: Yes. Amazing!

SKS: I don't know how they went do the last one. [chuckling]

KM: Steep gulch. You talking like at Maunalei?

SKS: Yes. Right by the trough water there's a place right by Maunalei Gulch. Get one… [thinking] the Hawaiian word for that, that's where the ridge goes down. You know the ridge? There's a ridge that goes down like this, goes out and then comes small and it goes right down, the point. And we used to teach the cattle how to go down.

But then after that pau. The stones all started running away, no can. Get all the different kind stones come out. We have to drive them all the way up and take the trail.

KM: Take 'em down again?

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SKS: No, we never did that. We chase the pipi down.

SKS: Lloyd Cockett went teach me plenty stuff inside there too. He found a cave, get the kind trail, stone formation. Me, I don't go inside that kind place.

KM: Yes. So they would set up pipe-lines, even to get water out to Kānepuʻu and stuff like that?

SKS: All the way. All below Kānepuʻu.

KM: Below.

SKS: Yes. If you go down, what is that, Lapaiki?

KM: ʻAe.

SKS: If you go down, halfway from the beach to the top, if you look back that's where all the pipes is.

KM: I see.

SKS: They put all the pipes, all the way.

KM: They would run pipes all over.

SKS: All the way till down here, almost close to Keone.

KM: Wow! If we come back to your pipi. They were shipping out of Kaumālapaʻu? Live head or butchered?

SKS: All live.

KM: All live. Okay.

SKS: I don't know how much they can put on the boat but I know quite a few…

KM: Like Humuʻula like that would come in or?

SKS: Yes. Because you see that's the old kind of ship where…on the bow they have a platform. But then right back of there, that's one puka right over there.

KM: I know some places where they would hōʻau the pipi out in the water and then they would winch them in.

SKS: Right.

KM: Were you swimming them in the water or were they?

SKS: Before then.

KM: Before then. Oh, wow!

SKS: Until the early times, I don't know what year is that but in the early times, that's how. You know that Mānele, what they call that now, Mānele Bay, the other one is Pōlehua used to get black sand.

KM: Oh.

SKS: And get coral. They used to chase the pipi inside there and take them to the boat. That was tough… But then after that they took the boat, no more pier but they put two anchors, one in the back, the bow and whichever way they put that thing and they bring that thing close. They get the winch up on the land.

KM: That's right.

SKS: Huki.

KM: ʻAe.

SKS: And they winch ʻem and then they get that anchor too. I don't know how they do ʻem but they did it.

KM: Did you ever see them use the pipi chute or was that pau when you were?

SKS: No. I only seen pictures of that.

KM: Okay. They weren't using that when you were working.

SKS: I look, they stay about this far away from the pōhaku [gestures a narrow gap], you know.

KM: I know so you really got to anchor paʻa.

SKS: And a good job, boy they do.

KM: Yes.

SKS: And the pipi stay up mauka, they hook the thing just chase ʻem down. Ohh!

MS: Those were the days!

KM: They were!

SKS: Yes, strong.

KM: Was mostly Hawaiian cowboys?

SKS: Yes.

KM: Hapa, part-Hawaiian cowboys like that.

SKS: That's what I know, I only seen Hawaiians.

KM: Yes.

SKS: Kahoʻohalahala all them guys.

KM: Yes.

SKS: Plenty.

KM: Aunty mentioned and you said had the Tamuras. Helen's father?

SKS: Yes.

KM: He was carpenter, handy-man like that or?

SKS: Bee hive.

KM: Bee hive, oh, the bee hive?

SKS: He could do anything.

KM: Any kind, yes. If there were Japanese or other Korean family people. What were they doing? Were they ranching also or were they doing the other jobs around the ranch land?

MS: Pineapple.

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SKS: Pick pineapple.

KM: Pick pineapple.

MS: Mostly from the Big Island when depression days they came over here. That's how my parents came.

KM: Really!

MS: They came over here to find jobs…

Mary Ellen "Suki" Louisiana Maile Lehua Richardson Nakoa
August 26, 2006
Lānaʻi Oral History Program
With Kepā Maly

Mary Ellen Louisiana Maile Lehua Richardson Nakoa – "Aunty Suki" (Figure 47) was born September 13, 1935 at Kōʻele. She was the oldest daughter of her parents Rebecca Kaopuiki Richardson and Ernest Samson Richardson, and the third eldest of the moʻopuna born to Tūtū Mama and Tūtū Papa Daniel Kaopuiki. She spent the first 20 years of her life living between Kōʻele and Keōmoku.

Figure 47. Aunty Suki, Tūtū Becca and Aunty Charlotte (KPAS-1219, September 13, 2003)

Aunty Suki held a deep passion for the history of Lānaʻi's families, land and traditions, and over the years she collected many papers, articles, genealogies and photographs which make up the foundational collection of the Lānaʻi Culture & Heritage Center. She began collecting historical materials for Lānaʻi long before most people understood their value.

In this interview, Aunty Suki provides us with glimpses into her knowledge of family and life at Kōʻele; she also helped to identify locations being discussed on the 1938 map of Kōʻele (Figure 36). She was the acknowledged family historian, and her passing away on May 14, 2011, was a loss to her family and all Lānaʻi.

KM: …We're just going to talk story.

SN: Okay.

KM: Mahalo nui. I'll talk up…mahalo! Thank you so much for being willing to talk story.

SN: Okay. You're very welcome. I'll give you whatever comes into my mind.

KM: ʻAe, yes. That's why I brought some of the old photographs and also your set of maps. I brought some that we may mark things down on also.

SN: Okay.

KM: I'm going to be a little nīʻele you know.

SN: That's okay, that's how we learn.

KM: Because if we don't ask… That's right, exactly.

SN: If you don't ask, you don't know.

KM: Yes. What I'm going to start with is basic background.

SN: Okay.

KM: Your full name and when you hānau?

SN: My full name is Mary Ellen Louisiana Maile Lehua Richardson Nakoa.

KM: ʻAe.

SN: I was born on Lānaʻi.

KM: ʻAe.

SN: September 13th, 1935.

KM: ʻAe.

SN: My mom is Rebecca Kaopuiki Richardson. My dad is Ernest Samson Richardson.

KM: ʻAe. You hānau, you said here on Lānaʻi at Keōmoku or mauka?

SN: Kōʻele.

KM: Kōʻele. Okay. Real quickly, mama was born here on Lānaʻi at Keōmoku?

SN: At Keōmoku.

KM: Somewhere in that vicinity?

SN: [thinking] Kahalepalaoa.

KM: Kahalepalaoa. Okay.

SN: She said Kahalepalaoa in one of the storage housing there.

KM: Oh, yeah?

SN: Yes, down there.

KM: From the old sugar plantation?

SN: Yes.

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KM: The landing was there right?

SN: Yes. The landing was there and then they have storage housing over there.

KM: Sure.

SN: When the boat comes in, they leave all their things over there… Now papa though, and papa was?

SN: Lāhaina.

KM: Papa was born in about 1910?

SN: In [thinking] yes, 1910.

KM: I think so because mama was born in 1914?

SN: In 1914.

KM: Okay.

SN: Let me go look in my book. Yes. I'm fine. [looking in book] Yes, July 1st, 1910.

KM: Was papa?

SN: Papa.

KM: Yes.

SN: Then mama, May 20th, 1914.

KM: Okay. Papa you said was born in Lāhaina?

SN: Lāhaina by the armory hall.

KM: Okay… Papa is Ernest Richardson?

SN: Yes. Ernest Samson Richardson. He has a brother John and he has a grandfather, John…

KM: Now, Uncle Johnny Boy here is?

SN: The brother of my dad.

KM: It was so interesting. I guess I knew that but papa was so different looking.

SN: Yes.

KM: Now, you're one of the oldest moʻopuna of Tūtū Mama and Tūtū Papa right?

SN: I am number three. Most of my childhood, during the summer vacations, three months we would spend down there with tūtū. In fact mostly all the keiki, my Uncle Daniel's children and my mom and… We were just about the same age as Aunty Eva… We all stayed down there.

I think I was only about one or two years younger than Aunty Eva and she was the youngest of my Tūtū Mama.

KM: Yes. It was like you folks were sisters?

SN: Yes. We all grew up together, yes.

KM: Okay, that's good. When you hānau at Kōʻele, you lived there, you went to school?

SN: All my life.

KM: All your life. Summers or weekends like that, you folks would go down with Tūtū Mama, Tūtū Papa them?

SN: Down with grandma, yes. We would go down to the church at Ka Lanakila.

KM: ʻAe.

SN: Every weekend we'd go down there.

KM: ʻAe.

SN: But during the summer we'd stay down there. We'd come home, back and forth, but usually during the summer, down there…

KM: ʻAe. Beautiful! Okay. Now, we're bouncing around a little bit, but just thinking about growing up, you knew your tūtū. Let's talk a little bit about Kōʻele.

SN: Yes.

KM: I have a couple of photographs. This one you gave to us, it's from above, showing the old reservoir and the village.

SN: Yes, the pool any way.

KM: Yes. The big water…

SN: Yes.

KM: This water came from Maunalei?

SN: From the mountain. Yes, Maunalei. But when rains, the water all mixed up with this.

KM: Oh.

SN: And there's another pond on this end… [point to Kaiholena]

KM: That's right. The luawai was over that side too.

SN: Yes.

KM: Now this…

SN: Tree, still living.

KM: …Norfolk pine tree is still there.

SN: Yes.

KM: And this is the one that's by the hotel?

SN: Yes.

KM: And the houses, you can see scattered through here?

SN: Yes.

KM: This photograph is in the 1920s I think, you said?

SN: Yes.

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KM: No more the church up here yet?

SN: No more. This was done in Munro's time.

KM: Okay. And Munro came 1911 about?

SN: 1911.

KM: Yes.

SN: And then he retired at 1934. And then he went to Oʻahu.

KM: It's interesting, if we look at the line of trees, then you can see the…

SN: Used to have a road in the back here because the principle, have another house over here.

KM: Yes, because the school house was there.

SN: Yes.

KM: Did you go to that school or did it close before you started school?

SN: The school was up on here. But the principle used to live right here.

KM: Just on the Nininiwai…?

SN: You come in the back and then there's a road in the back here.

KM: Along the line of trees?

SN: Yes.

KM: I see there's more houses back here [pointing to northwestern side of the ranch camp] .

SN: That's where we are now.

KM: That's where you are now?

SN: Yes.

KM: Do you recall who's houses were back here at that time?

SN: My [thinking] Tūtū Matilda Gibson.

KM: Oh. The Gibsons?

SN: She was married to Henry Gibson.

KM: Yes.

SN: I think the other one was just one ʻauʻau [bath] house, like.

KM: Yes. You can see the main big house up here the roof line and then the corner…

SN: Yes.

KM: But today, mama's house and… It's right in that…

SN: Yes. They [D.H. Murdock] moved two houses from here over on that end.

KM: Okay.

SN: And then just in front of the house because you know where the road comes into grandma's house?

KM: Yes.

SN: Right there [pointing to area where hotel now sits]. Where the avocado tree, the waiawī tree, in that area that's where this house was.

KM: ʻAe, okay. This is another, a little later photograph because now the church is there I think. The Quonset huts?

SN: Yes. This is later, this was maybe about in the…

KM: This is 1950.

SN: Yes, the 50s.

KM: The Quonset huts came from the war time right?

SN: Yes. And then the company was using them as a storage area.

KM: We see if we look here at Kōʻele, here's the reservoir, again, in the older picture, there's the reservoir, the luawai.

SN: Yes.

KM: The principle's house would have been?

SN: Over here.

KM: Oh, that house right there, the top house.

SN: Yes.

KM: Okay.

SN: Only one.

KM: And the school was out of this picture?

SN: By the golf course, on this area.

KM: Okay. Now we see, if you look maybe there's about what, twenty-five houses or something? Scattered, in buildings, houses and buildings.

SN: [thinking – begins pointing to homes] At the time I was growing up, this used to be Bernard Gibson.

KM: Okay, the first house.

SN: And then Sam Kanahele and Uncle Johnny Richardson.

KM: Okay.

SN: And us.

KM: Okay.

SN: And my Uncle Biggie.

KM: Ahh.

SN: And then there's a lane here and then Uncle Bill Kauwenaʻole.

KM: Below.

SN: And Kauila.

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KM: James? No.

SN: Robert.

KM: Robert Kauila. Oh, young, he was the younger one?

SN: Yes, the younger one. And then…

KM: That's Aunty Hannah's brother?

SN: Brother, yes. Wait, not… This was Sam Shin's house and this was Uncle Robert. Get one more house in there.

KM: Right here.

SN: Uncle Robert stayed here.

KM: Okay.

SN: Then… [thinking] let's see, no, this was the single boys house, this was Bernard Gibson.

KM: Okay.

SN: He was right next to Sam Shin, the mother them used to stay in there.

KM: Okay. If we look real quickly, we start it's at the back houses.

SN: Yes, the back.

KM: The principle, then the boy's house.

SN: Yes.

KM: Then?

SN: Kanahele.

KM: Come Sam Kanahele, then John Richardson.

SN: Johnny Boy. And then me.

KM: You folks?

SN: Yes.

KM: Here. And this last house?

SN: Uncle Biggie.

KM: Uncle Biggie. Then you come just below that row of houses…

SN: Get one lane, get one lane over here.

KM: Yes.

SN: This is Keli'ikuli…

KM: Oh. Right below you folks.

SN: And then this was our out house, that's where the garage used to be.

KM: Okay.

SN: Papa would put all his things in there. That used to be the 'au'au house, the men and the women and then the washer.

KM: Yes.

SN: Where they go wash all their clothes inside that building.

KM: Okay. This is across the road…

SN: And then had another building right here, that's all the single… most of the single boys used to stay. Papa them used to live in there, then they turned it into a recreation hall.

KM: Ahh.

SN: They had a pool table…

KM: On the end of the lot, from the church side…

SN: Yes.

KM: …over towards the north, the north of the church.

SN: Yes. Going towards the road side.

KM: Yes.

SN: And then this here used to be Kwon.

KM: Right below you across the lane was Kwon?

SN: Yes. Kwon and then Kauakahi.

KM: Simeon Kauakahi?

SN: Yes. And then as you go further, that's where Tūtū Kaula, Matilda.

KM: Matilda Gibson.

SN: And Henry.

KM: Henry Gibson.

SN: That's the place where we stay now in there.

KM: Okay.

SN: Used to have a house over there.

KM: 'Ae. Oh. Now in front below the reservoir where the hotel is now, the managers house, like that?

SN: Yes, Mai'a.

KM: Mai'a, yes, Vredenburg.

SN: Mai'a stayed there. They had a house over here but I'm not sure who was living there because [chuckling] we cannot leave this side, we got to stay that side, we cannot come down.

KM: Yes, you folks stayed your side.

SN: And then they had stables. That's where, get one picture over there get all the stables, that area.

KM: Yes.

SN: This building was mostly all stables.

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KM: They had an office also, I think before?

SN: Yes. That's the house we stay in.

KM: The house you stay in, was moved?

SN: Was there.

KM: Was it this?

SN: This house is where Uncle Johnny Boy stay, that house.

KM: Okay.

SN: And then we stayed in the small house.

KM: These are the houses that they moved up?

SN: Moved in the back.

KM: In the later years, is this where Uncle Bill Kwon and Aunty Eva lived?

SN: Yes, in this house.

KM: Okay. This is the house that moved up also?

SN: Yes. And that's the house we stay in.

KM: Yes, okay.

SN: From here went in the back.

KM: 'Ae.

SN: And then used to be all… Like this picture, you see the cowboy one? I think over there…

KM: Let me just see, the one with all the cowboys you mean?

SN: Yes, you see, all this ones.

KM: Yes.

SN: All this used to be right here.

KM: All the?

SN: Yes, right here.

KM: Where the Quonset huts are?

SN: Yes.

KM: This area?

SN: That area. See the two houses in the back?

KM: Yes, I see them.

SN: Right here.

KM: Okay.

SN: Comes straight down, this was all pasture land, pasture over here.

KM: 'Ae.

SN: And then this house was down here.

KM: Okay.

SN: They broke all this fence up and then they put the Quonset house.

KM: Did the ranch use the Quonset huts or was it really the company?

SN: No. Yes, the company had all their…

KM: Photo number 6-A is the one where showing all the houses and then the older one is number 5 from Munro's time.

SN: This area is all…

KM: Number 53.

SN: When they closed the ranch, they broke down all this.

KM: I see. All of these working pens like that?

SN: Yes. And working pen, you know the road with the cattle coming down?

KM: Yes, I may not have it here.

SN: It goes right through this area.

KM: Just below the pens?

SN: Yes.

KM: And below where the Quonset huts were, would have been?

SN: Yes.

KM: Now, they closed the ranch in 1950?

SN: In '50 or '51, around there.

KM: Okay. Were you still home?

SN: Yes.

KM: Here's a quick question for you. When the ranch closed, what was the feeling of papa them and the 'ohana? Do you remember, was it hard for them or?

SN: Was hard for the older ones, like Uncle Bill Kauwenaʻole, Uncle Johnny Boy. Papa and Keliʻikuli, Ernest, were the last cowboys because they had to go get all the strays.

KM: Yes.

SN: Most of the cattle went to Parker Ranch.

KM: Oh, yeah?

SN: Yes. All to Parker Ranch.

KM: Did they ship it to Hawaiʻi or to a holding pen on Oʻahu, do you remember?

SN: No, they shipped it right out.

KM: Shipped it to Hawaiʻi?

SN: Yes, they shipped it right out to Kawaihae.

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KM: Kawaihae.

SN: Papa and Ernest Keli‘ikuli was the last, the rest of the cowboys all went down to the city and worked, the pineapple plantation.

KM: Yes, yes.

SN: I think most of them were truck drivers, like Uncle Johnny Boy. And then the older ones like Sakamoto, Kwon and… Kanahele moved back to Moloka‘i. The Gibsons moved back to Maui. Left only Uncle Biggie, Uncle Sammy, Sam Shin and Uncle Johnny Richardson worked for the plantation. After papa and Ernest got most of the stray cattle then papa went to the company as a truck driver. And Ernest Keli‘ikuli moved his family to Honolulu and he worked at Greenwell Ranch down Kahuku.

KM: Yes, oh.

SN: That’s where he moved then later he worked at the slaughter house at Middle Street. They used to have one. United Meat or something?

KM: Yes.

SN: I forget already. He used to live down at Kahuku. He was a cowboy down there. And because—like I got it from the kids—the father was a good slaughter man. They sent him down under…

KM: Oh yeah?

SN: …to [thinking] no Johnston, might have been there, I forget already. They sent him down there and he taught those people how to slaughter the cattle down there.

KM: Oh, interesting.

SN: He stayed down there one whole month teaching them and then he came back to Greenwell.

KM: Wow! Very interesting the life there. You folks living, growing up at Kō‘ele, it was a close community?

SN: Close community.

KM: And you’d mentioned a couple of Japanese and Korean family names like that.

SN: Yes.

KM: Was Tamura or Murata still working?

SN: Yes.

KM: Sakamoto? Tamura?

SN: Sakamoto, Tamura, used to have Ueda, Kawasaki.

KM: Oh.

SN: But they all moved after a while.

KM: Yes, when it closed.

SN: Because they were older, pau. The children moved, the parents go with them.

KM: What about Nishimura?

SN: Nishimura. He was…he used to hang around all the time with the cowboys, I’m not sure if he worked for the cowboys.

KM: Maybe, what about when he was young down at Keōmoku?

SN: Probably he worked with them, I’m not too sure.

KM: Nishimura lived up here also for a while?

SN: No [thinking]… No, because when I grew up the only Japanese was Sakamoto and [thinking] Murata. Murata lived right down here by, where that corner house.

KM: Yes.

SN: Right down there. I know they used to stay down Keōmoku side, Maunalei side. But Nishimura I’m not…

KM: Yes. It was a fairly tight community though?

SN: Yes.

KM: You’ve mentioned a lot of the names, you pointed out the houses where the families were.

SN: Yes.

KM: You know what’s interesting too about you’ve mentioned that the pipi and in ’51 I think it was, like the photograph.

SN: Yes, it was that.

KM: It shows all the pipi getting put on the barge, went to Kawaihae. Vredenburg them all had a close connection to Parker Ranch also.

SN: Yes. In fact he came from that area?

KM: Yes, that’s right.

SN: And then Kauakahi came from Ni‘ihau and went to Kaua‘i. From there they came over to Lāna‘i. They all worked with my father.

KM: And Kauakahi like you said, Kauakahi actually came over with the Gays?

SN: Yes.

KM: Like Pu‘ulei.

SN: Yes.

KM: There were a couple of the older Hawaiian cowboys that had come over in that era.

SN: I only know by names because I hear papa them all talk when… He started with Kō‘ele at 16 years old.

KM: Papa?

SN: Yes. He worked with the older cowboys and then, like he said, they like to inu, so all them, they kind of bet on each other. Who was the best cowboy or the best trainer or the best bucking horse. Papa, he used to hang around all these old folks and then he said, when he young he like bucking horse so they always bet

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among themselves, the old folks. They bet on papa if he going really brake in the horse. But a lot of stories, my father is a real story teller. He had lots of stories about his days and the old folks and how they worked.

KM: Yes. This is an interesting photograph, remember when you saw it and all the pānini. Tell me, this is one of papa's stories too about the pānini.

SN: Yes. He got lost in here the first time he went round-up cattle.

KM: ʻAe.

SN: He couldn't come out because this thing was thick, it was thick. This was just about growing, but after a while it was thick and hard to maneuver. The cattle they all go in there, they hide.

KM: They smart, they go hide.

SN: Yes. They hide inside there. Papa…and like Uncle Bill, they were older already.

KM: Yes.

SN: When papa no show up, they had to go inside, go look for him and they brought him out.

KM: Look for him. Auwē! The pipi were smart. Now this pānini all in through here and you can see it in the photograph. I mean it's just thick all back there, this is photo 29.

SN: Yes. That's the red one. And we used to eat, because papa would go get for us. With the rag, then he'd peel off, then we eat that.

KM: And ʻono.

SN: We'd leave that black seed, the red one. It's ʻono!

KM: Yes. The ranch days, you said papa, and was it Ernest Keliʻikuli?

SN: Yes.

KM: Who were the last to work?

SN: They were the last.

KM: Where were the stray cattle?

SN: All over.

KM: All over, they had to go down?

SN: All over, Keōmoku area. All that area.

KM: Mountain side?

SN: Mountain. Down from Naha. They go, they go in the morning, they go look and not too much stray.

KM: Yes. You just mentioned Naha, I was just going to… Did you ever hear dad, this is the trail.

SN: Naha Trail.

KM: Yes.

SN: Papa said they used to drive the cattle, go up from Naha to Maunalei [thinking] to…

KM: Waiakeakua.

SN: Yes. Get one more other name, Kaiholena?

KM: Oh, Kaiholena.

SN: Yes. That area.

KM: Across the mountain?

SN: Yes. They come up. The cattle the one make it all smooth. That's the trail they always come when they go down that area and bring the pipi over.

KM: Yes. I took Uncle Koa and Uncle Sol on a huakaʻi a few weeks ago and they were talking just what you're saying about how... Uncle Koa though, he was younger, he still rode the trail a couple times. He said it, was a hard drive come up you know.

SN: Yes.

KM: But at Waiakeakua, they would hoʻolulu?

SN: Yes.

KM: Because had water, they had the water source up there.

SN: Yes, they had water up there. I think that's about in the ʻ40s I think, they went make cement water trough.

KM: Yes.

SN: Here and there if you look, if you go around, there's still some trough water, like that one. You see this one [pointing to trough in photo]?

KM: Okay, sure. I understand…

SN: This one get one trough water here.

KM: That's right, there's the trough. I understand that's the Kāheʻa windmill.

SN: Yes.

KM: This is Naha.

SN: Naha one. I think Kaʻa one… Because they had it all divided for the cattle. They had Hauala [written Hauola], they had Kaʻa, they had down by Naha.

KM: Yes.

SN: Get trough water all near the gates.

KM: And it was all from…they had windmill?

SN: The windmill, yes.

KM: Now, did you hear anything about who made the windmills?

SN: I don't know who made it but it was there. Tūtū Papa and Tūtū Dudee Cockett, they the one's go up here and oil.

KM: Yes.

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SN: They the only two go up there.

KM: Dudee was Uncle Lloyd or the father?

SN: The father, Robert.

KM: Uncle Robert?

SN: Yes.

KM: Okay.

SN: They call him Dudee. Only them two go up and oil.

KM: They would go up to the top to oil the mechanism.

SN: Oil the windmill. The portion right in the… Get one iron piece that holds the fans.

KM: The fans like, yes.

SN: They got to go oil inside there.

KM: Wow! Aunty Irene told one funny story once, she went climb up one of them by Keōmoku and she got stuck up there. Cry, cry, cry. Finally the father had to go up and get her.

SN: [chuckles] Oh…!

KM: Really interesting, what a life. Now Tūtū Papa used to take care of those?

SN: Yes, the windmill. Until we closed the church down there and then Tūtū moved up.

KM: ʻAe. Now that church…

SN: Ka Lanakila.

KM: The new Ka Lanakila was dedicated in 1954 up here? I think it's what the sign says.

SN: This one, yes.

KM: In 1954. When they dedicated the church up here, is when tūtū them moved up?

SN: Yes. Because then no more cattle down there, '51.

KM: Yes, '51.

SN: No more cattle but Tūtū stayed a little while and then they brought him because he was still working for the company.

KM: ʻAe…

SN: [looking at photo] Ka Lanakila.

KM: This is the church makai. And used to have a fence in front?

SN: Fence in the front, there's a toilet in the back here and there's a graveyard in the back.

KM: Yes, behind the church a little ways.

SN: Yes. You got to go along the fence, the road go in the back.

KM: Yes.

SN: That's where we buried Tūtū Mahina.

KM: Oh.

SN: And then two of my baby brothers were buried over there.

KM: Your brothers?

SN: Yes. My mom had seven children, four boys died. Two is buried up here at Kōʻele and two down here with Tūtū Mahina.

KM: Oh.

SN: Down here as I remember, only rock, hardly any dirt so they had to…

KM: Yes, so they build up a little bit too?

SN: Yes.

KM: Now this church was dedicated in 1903?

SN: Yes.

KM: And the interesting stories about Alexander George and how the ʻohana from Molokaʻi came and helped build this…

SN: Yes. Because this church was part of Ke Alaula on Cooke street.

KM: Honolulu, Cooke Street. Hoʻomana Naʻauao.

SN: Yes. That's the mother church.

KM: Yes.

SN: And then as years go by, I remember Tūtū Kauila used to be the pastor first and then Tūtū Papa. From there came up to here.

KM: Now, in 1930 Ka Lokahi was built?

SN: Yes.

KM: Had Robert Cockett been kahu down here too, or not?

SN: No.

KM: When he came up though?

SN: Only up here.

KM: Only up at Ka Lokahi.

SN: I'm not sure but I used to see, they come to the church.

KM: Yes, they came down…

SN: But whether he was… I don't think so.

KM: It's like the song that Tūtū Papa wrote for the Hoʻomana Naʻauao churches for the Lānaʻi ones…

SN: Yes, the one sounds like [humming song].

KM: That's it.

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SN: Yes.

KM: The one was [singing] No Lānaʻi a Kaululāʻau, ka ʻeaʻea ʻoia mokupuni…

SN: That's in the song book. Let me go get for you. I get most everything all over here [chuckling].

SN: And this book. Because it doesn't have music, only Aunty Lei is able to sing from this book. I always tell my kids, go sit down with aunty and tape the songs. But aunty said, she doesn't know too many of these songs… It's almost like "Nani Koʻolau…"

KM: It is and Tūtū Papa wrote the one, "ʻOhuʻohu Polihua i ka mānewanewa i ka lei kaulana ʻoia ʻāina…

SN: I'm not sure if everything is here but…

KM: Here is it, number 11, oh no… That's okay.

SN: Bumbye we can find, yes.

KM: Yes. It's beautiful. Now from Ka Lanakila, by 1930 many of the families had left Keōmoku right?

SN: Yes. Because no more job.

KM: Yes.

SN: They left. Most of them, like Tūtū Papa's number two sister, Tūtū Namī.

KM: ʻAe.

SN: She took her family go Lāhaina.

KM: Yes. And Namī married Makahanaloa?

SN: Yes… [discussing ʻohana and activities in the Keōmoku region – looking at photos]

So much memories, so much. These pictures, this is all the cowboys too, at my father's time.

KM; Yes.

SN: Because that's where he learned all his Hawaiian too from them, he pick little bit, little bit.

KM: Yes. This is one of Emory's picture, it says, "Kōʻele Inhabitants."

SN: Yes.

KM: When he was here. If we look like the two Korean men.

SN: Yes.

KM: You said, the round face one, that's Shin?

SN: Yes, that's Shin, that's Sam Shin's hānai father.

KM: Father, yes.

SN: And this is his wife.

KM: Standing behind him in the white dress?

SN: Yes.

KM: Okay. And this is?

SN: And then this is Uncle William, Noelani them's grandfather.

KM: Yes. Kwon?

SN: Yes. Kwon.

KM: And his wife?

SN: This is his wife, two sisters.

KM: And they were? Napuehu?

SN: Napuehu.

KM: Napuehu, ʻae. Now, next to them standing up, this woman, do you recognize her?

SN: Okay. This is Apiki.

KM: That's Apiki, Kaʻuhane?

SN: That's Tūtū Mans…

KM: Kauila?

SN: Kauila's wife.

KM: Okay. Next?

SN: Mother and father, Aunty Hannah, Aunty Mahoe.

KM: Okay. So we go, Apiki, Shin, Kwon, Kauila.

SN: Yes. And then Piʻimoku.

KM: Piʻimoku, Koanui, Koapiʻimoku.

SN: Yes. And that's his wife.

KM: Yes.

SN: [thinking]

KM: Maleka, Makaleka.

SN: Yes.

KM: And you said she, who was her? Do you remember?

SN: [thinking] Two sisters, I think.

KM: You think, Apiki?

SN: Either two sisters or sister-in-law.

KM: Sister-in-law.

SN: Because I know these two is two brothers-in-law, Keōmoku and Kauila.

KM: That's right, I see, okay.

SN: And then this is Pili.

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KM: Oh, that's Pili Kahoʻohalahala standing with the gun also.

SN: Yes, because look no more one ear.

KM: Oh. How did he lose his ear or hānau that way?

SN: I don't know but I know no more one ear.

KM: Interesting.

SN: This is Gibson.

KM: She's pure haole or part-Hawaiian?

SN: Half, I think.

KM: Half, okay… we were looking at photo 17.

SN: Yes.

KM: Pili?

SN: Pili.

KM: And next to him also, with the gun? Do you recognize?

SN: [thinking]

KM: No recognize.

SN: I'm not sure.

KM: Okay. Then if we come down, this woman here?

SN: This is Mano.

KM: That's Mano, okay.

SN: Tūtū Mano. I think that's the mother of Tūtū Namī's husband. Makahanaloa.

KM: Oh, yeah?

SN: You know that Mano, get Mano and Makahanaloa, but they're brothers.

KM: Oh, I see, one took one name, one took another.

SN: Tūtū Jonona, the one was married to Tūtū Georgina Kauwenaole, John Mano, that's his mother too.

KM: Oh.

SN: But he go as Mano. And then Tūtū Namī's husband, Joseph Makahanaloa, goes as Makahanaloa but they're brothers, maybe half or what, I'm not sure.

KM: Okay.

SN: That's the only… This is Tūtū Mama's brother.

KM: Here, with the guitar.

SN: They call him Puʻu.

KM: Puʻu.

SN: Kaʻuhane.

KM: Kaʻenaokalani? Not?

SN: [thinking] Half-brother I think this.

KM: Half-brother, I see.

SN: I think half.

KM: Puʻu, you think?

SN: All I know, is they call him Puʻu…

KM: Yes. And this is a part of that Kōʻele photograph?

SN: Kōʻele, yes.

KM: You told me from right to left.

SN: Yes.

KM: This is?

SN: Uncle Bill Kauwenaole.

KM: Bill Kauwenaole.

SN: Yes. And Tūtū Kauila.

KM: James Kauila.

SN: Yes. And Uncle Abraham Kauila.

KM: Kauila, this is the son?

SN: Yes, the son.

KM: This is Tūtū Ape, Apelehama?

SN: Yes. They called him, "Ape." And then this is, I think this is Uncle Jerry Kaopuiki.

KM: The older Jerry, Jeremiah.

SN: Yes. Jeremiah.

KM: And this one you said, got maʻi also, and had to go to Kalaupapa?

SN: Yes.

KM: Oh, minamina.

SN: Yes. He stayed there only about [thinking] '47, he died in '47, 1947. But he was going back and forth.

KM: By that time you could, yes.

SN: Yes. But you know when I went to Kalaupapa and I saw that area I said, "I don't know how people… No wonder so many people died…"

KM: Okay. Now, here's an important question. The old houses, the old Kōʻele houses now in reality there's only two houses at Kōʻele now.

SN: Yes. Only two.

KM: And those houses of course are not where they were originally.

SN: Yes.

KM: But they are in a part of the Kōʻele thing, as you said Tūtū Gibson mā lived there.

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SN: Yes.

KM: In the best of worlds, and we recognize that unfortunately when they began building the hotel and things like that they moved the church.

SN: Yes.

KM: They moved those two houses and then where the hotel is…

SN: They built.

KM: Yes, they built. If you had your way, unfortunately mama is coming on 93 now.

SN: 93.

KM: When mama is gone, would you like to see those houses stay there as a part of the history?

SN: Stay there, yes!

KM: Do you think in your mind, in your naʻau, that if the community could come together and work out to preserve there. Is that a good thing to do?

SN: Yes!

KM: You would like i?

SN: I think so, yes.

KM: Because it's the last…

SN: That's the last of Kōʻele.

KM: That's it!

SN: Yes.

KM: Otherwise if those houses go, we will have erased everything.

SN: Everything, yes.

KM: An important thing about this aunty, is that Kōʻele, by the 1860s was already being established as a headquarter. Gibson and the Mormon's had originally started it at Pālāwai…

SN: Pālāwai, yes.

KM: Gibson began buying out some of the government interest of the government lands.

SN: Yes.

KM: We see by the 1870s there is a Kōʻele Ranch already.

SN: Yes.

KM: In the 1880s, people like Sam Parker, Irwin them are coming and working.

SN: Yes.

KM: In the 1870s, Gibson and King Kamehameha V entered into a ranching agreement.

SN: Yes.

KM: Kōʻele is a hundred plus year history of ranching on this island. Is it important to try and perpetuate and to keep alive some of this ranch history?

SN: Oh, yes!

KM: Because it's a unique part of the history.

SN: Yes, yes. I agree with that, yes.

KM: Okay…

SN: That's what we tried to do when the ranch broke down and then the hotel was coming in. We tried to preserve it up there but they moved everything. Even that house, the house that stay down there on the state land.

KM: Yes.

SN: We wanted that to stay there and make a museum out of that house. Hermina fought for that house but we couldn't keep it up there, they moved it down there. Now it's for nothing.

KM: The last two houses now…

SN: The other two…

KM: …connect us to history.

SN: Yes. That's the only two, last… You know, like the haoles, the visitors that come in. They don't know much of the history, but if you put it there, these things, you know…

KM: Yes. They will value it.

SN: They will value what they learn.

KM: Yes, exactly. And I believe that even like with Hui Mālama Pono, we're working to try and get Hui Mālama Pono to, in a partnership with the company to take over the operation of the museum. And to increase its membership.

SN: Yes.

KM: I believe that even the new people, if we come and we share history with them, they're going to become strong advocates.

SN: That's right!

KM: Yes.

SN: And they will be coming back and coming back…

KM: Mahalo nui.

SN: I was ready for you.

KM: Oh, you always ready. Mahalo nui and God bless you, mālama pono.

SN: I thank you so much! You know you're hānai Lānaʻi yes, because when you came. How long you stayed here?

KM: About four years. Tūtū Papa them were so kind to me in the church.

SN: I know. How old were you?

KM: I started coming in '64 back and forth. I did high school. I worked summers and

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stuff like that.

SN: Yes, I know… I thank you so much for these things…

KM: Mahalo nui. Thank you. What a blessing. [end of Interview]

Albert Halapē Morita
October 16, 2006
Lānaʻi Oral History Program
With Kepā Maly

Albert Halapē Morita (Figure 48) was born in 1951 on Molokaʻi, and his Hawaiian genealogy descends from the line of Kaʻawakauʻō. When Albert was one year old, his father was employed as the Territorial game manager on Lānaʻi, and the family moved to the island. This was the period just when the ranch operation out of Kōʻele was being closed down, and the family settled in one of the old ranch houses on the headquarters parcel. Albert spend the formative years of his life with the few remaining old cowboys on Lānaʻi, and explored the lands all around Kōʻele. His interview includes richly detailed description of the later ranch camp facilities and stories of Lānaʻi that he learned from the families who remained at Kōʻele. Specifics pertaining to features on the land, and changes that occurred with the passing of years provides readers with important details of place. He also brings a sense of place and the spirit of the people to us through his stories.

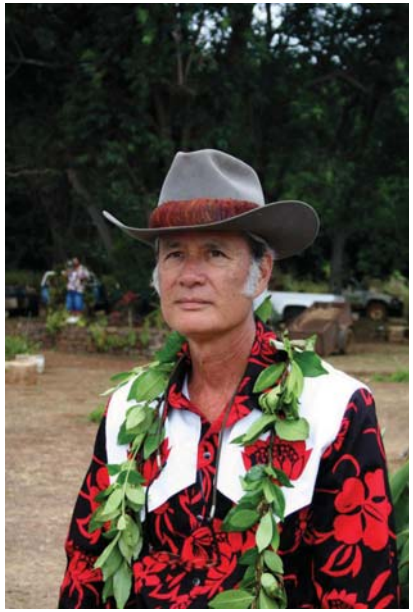

Figure 48. Albert Halapē Morita at Kōʻele (KPAC-1781, August 6, 2006)

AM: My full name is Albert Halapē Morita. I was born July 29th, 1950 in Molokaʻi.

KM: ʻAe.

AM: Hoʻolehua Hospital, that was the hospital at that time. My parents were living there with the rest of our family. My father was in the police department. We came to Lānaʻi, I think it was about 1951, when he got a commission as a game warden for the territory.

KM: I see.

AM: We moved about 1951 to Lānaʻi. I don't remember our first home but it was across the street from where Richard lives now, Caldwell, I believe. After that we moved to Kōʻele when the Territory got that, after the ranch closed down I guess, they got all the buildings there, for their base yard and residence.

KM: I see. Kōʻele Ranch or the ranch headquarters basically, was that… do you recall, was that 1951 that the ranch closed?

AM: About 1951 I would say, I was a small boy, only 1 year old.

KM: Around the time that you folks came here already the ranch was…

AM: Yes, it was closing down.

KM: Okay. You said, so the territory actually got the ranch houses?

AM: Compound.

KM: Compound?

AM: Two houses and then some of the area there for residence and then they ran everything there. The check-in station and everything.

KM: The old Quonset huts that were there?

AM: Yes.

KM: Was that a part of the Territory compound, did the company keep that?

AM: No. That wasn't part of the compound, that was still being used by Dole for storage.

KM: I see, okay.

AM: And when we first got there most of the time those things were locked up. They would store things inside and lock them up.

KM: Yes. Mostly equipment kind stuff like that?

AM: Equipment. I remember they used to bring in skips and skips of the mulch paper. And at that time, I remember as a small boy, watching them bringing the trucks and then bringing the fork-lifts and unloading. In there had stacks of the regular like tar paper, rolls of mulch paper.

KM: Yes.

AM: That was before plastic. And I guess they must have bought it in bulk and just stored it there till they needed it.

It was stuff like that. Sometimes other equipment that weren't being used, they would store it in there. Most of the time it was locked up, the Quonsets. We moved the door, as kids getting into everything, go inside go look around. And after a while in later years they didn't lock it, then we used to use that for our garage. We used to park our cars in there too. And we used to play in there, in the later years.

KM: About what year do you think you folks moved to Kōʻele? You were at Caldwell's side first. About when?

AM: Maybe about ʻ53 I think.

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KM: Okay. Who was living up with you folks, around you folks?

AM: Around Kōʻele?

KM: Yes.

AM: Our first neighbors when we moved in Kōʻele was a family by the name of Fuller.

KM: Fuller.

AM: I think [thinking] not sure if it was Richard also. It was the Fuller family and then Mr. Fuller had the job that Uncle William Kwon eventually took over.

KM: Oh, I see.

AM: They were there for a few years.

KM: Was he pure haole or you think they were part-Hawaiian?

AM: He might have been hapa you know. I know the wife was, they were fair, one of the daughters was really fair, Katie I think her name was. I think they moved to Kauaʻi. Since that time I hear the name once in a while pop up, I've never run across him again. That was our immediate neighbors.

KM: Okay.

AM: Back of us there was a church, right above the church was, I think it was the Basques family.

KM: Oh. You think Winifred Kauwenaole Basques?

AM: I'm not sure if it was the same family or not. They stayed there for a while and then they moved. And I think there was a Makekau family or was it… I might have it mixed up. I know there was a Pang family.

KM: Oh, wow.

AM: I think his name was Wally Pang and I think he worked for… [thinking] I think a store keeper in one of the stores.

AM: I'm not sure. And I'm not getting to the Richardson's yet, I'm just getting to the one's that I remember.

KM: There were still a few families living up there.

AM: Yes, there were still a few.

KM: Okay.

AM: And then down, down where Monica Borges lived after a while, there was a Sakamoto and he shows up in the ranch pictures.

KM: Yes.

AM: Old man Sakamoto. He came with Vredenburg as I understand from the Parker Ranch guys.

KM: Oh.

AM: When Vredenburg came here he brought Sakamoto with him as one of his foreman or helpers to work. The Big Island cowboys when I bring up Vredenburg, and they bring up the Sakamoto name. Me, I only remember from small boy time.

KM: Yes. Do you remember hearing about Keliʻikuli?

AM: Keliʻikuli, not until much later from Hoss guys and Aunty Rebecca guys, the name.

KM: I see. You heard the name. I was wondering if he came with Vredenburg also then since…

AM: Maybe, I cannot recall the cowboys ever mentioning that name. But he was from Big Island?

KM: Yes. Keliʻikuli are Hawaiʻi people.

AM: I know when I'm home with my mother in the mornings sometimes he'd come up to visit and he would bring pohā for me to eat. He'd say go eat this and he'd talk story with my mom in the morning like this, they would sit around, talking story. I'd be outside playing or what. I should have been there listening, he probably had some good stories.

KM: Yes.

AM: I remember him and there was some other members of his family down there but I don't remember them too much. The high school kids, I don't remember. Then after that, well of course, Uncle Ernest Richardson and Aunty Rebecca they were very, very important.

KM: ʻAe.

AM: And then Johnny Richardson and Aunty Hannah.

KM: ʻAe.

AM: I think that's about it, might have been a few families in between the Richardson's, but I don't remember them. I think might have had one Lindsey that was right next door.

KM: Yes, I've heard them mention the name.

AM: Yes. I think one of them took care, was it Charlie Lindsey?

KM: I'd have to go look.

AM: Suki, of course Suki guys.

KM: Yes, I know.

AM: I'm talking about when we first moved there, probably from the time I was three to five years old, five, six years old. Then after that families started to move out.

KM: ʻAe. At the time you were there, perhaps there were ten?

AM: Ten families.

KM: Ten families about?

AM: When we first came there maybe it was about that many total.

KM: And then?

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AM: And then after a while, little by little they started to move out. Relocate… and some of the homes, they might have brought in people short term, and then moved out.

KM: Yes.

AM: Like that Sakamoto house after a while, police department I guess got that for one of the residence. The first one I recall there was [thinking] Kenneth McGuire. The big, big cop, really a character. He used to have, the car that I remember was like a red and black Ford, big old cop car. He was kind of a radical guy, good fun.

Then he went off to Maui with his family after a while. They came, I was probably about six years old. They may have stayed about two years I think on Lānaʻi. Some of the children was, the oldest daughter was Maxine, then Stacy, then I think there was a Michael and much later a Chucky I think. She's still on Maui.

Then the other family, yes, we're getting close to ten because the principal's house was up there.

KM: Yes. That's on the upside of the reservoir?

AM: Upside of the reservoir near the hot house, the original hot house. The first family I recall there was the Tanner family, Elmo Tanner was the principle at the school. My mother used to go and clean house, be like a housekeeper, part-time, go up there. She used to take me along as she cleaning and I'm in the yard. Pretty huge house. We used to go up there. They had several children, I think it was Michael Tanner, David Tanner and Sharon. [thinking] How come I cannot remember all the mothers? Mrs. Tanner, I guess because we called her, "Mrs. Tanner."

And then Mrs. McGuire. Maybe it will come to me later. Yes, that's close to ten families.

Then there's others that moved in and out.

KM: Yes. As the ranch was phasing out, were they taking the houses and moving them somewhere else or did they just let them go to waste?

AM: A lot of them were empty and then they just locked them up, did the best they could. I'm not sure when they started tearing them down. But I know like right next to Uncle Ernest, when they used to have hunting groups come up. I don't know if it was legal or not, but used to put them in the house.

They would just break-in like that, they sleep on the floor or whatever. And then there was one that's below, right below Uncle Ernest guys house, you know if he worked night shift, he would go sleep in the house during the day 'cause I guess all the kids around. That would be his crash pad, he'd be sleeping in there, take a nap during the day. When time to go to work he'd go to work. If we look at the map I can pick out who's house is who.

KM: Do you have an old map of Kōʻele?

AM: Somewhere, Suki made one with the...

KM: Wonderful! She told me about it.

AM: Yes. I think you guys have one up there, up at the center?

KM: No, no more.

AM: I have a photo copy with the Kōʻele layout.

KM: Wonderful!

AM: I'll go look for it.

KM: I would love to see it. Suki said she was going to try to look for it but she's getting all this stuff together and she has to figure out where it is right now.

AM: Yes, I have it in the stuff that she gave me.

KM: Good, good… So at some point in your time at Kōʻele, was it only your family, Uncle William, Uncle Ernest and Uncle Johnny up there? Pretty much? Did it evolve and you were the last four families?

AM: We were [thinking], I think there may have been in that Sakamoto house, after the police then they started bringing in other people. I cannot think, we left there in 1970. Is that correct? [thinking]

KM: I believe so.

AM: In '70 or '71.

KM: Yes.

AM: When this house Lālākoa 1 subdivision came up.

KM: Yes.

AM: That's when Bob right there, built about the same time.

KM: Yes.

AM: When we left, might have been like five, I think the Sakamoto house might have had someone inside.

KM: Oh yeah?

AM: Yes. I think Butchy Mahaulu lived there with Eloise for a while. And Albert Sipe and his family lived up there. [thinking] In between there was the Nabarro family in there, people moved in and out. I cannot recall when we left.

KM: All of them were working for the company?

AM: Nearly all were company.

KM: Or like you said the police who had an agreement with the company for housing.

AM: The police one, the only one I remember was McGuire.

KM: Okay.

AM: And then after McGuire, I think it became Dole people.

KM: Okay. The house you're in, that you folks left in '70 'cause Dad them got the house down here right?

AM: Yes.

KM: What did that house become? What was it used for?

AM: Right after?

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KM: Right after.

AM: [thinking] Must have been office I think.

KM: Office.

AM: Yes. I think ‘70, because Lanai Company operation started up.

KM: Right.

AM: They had various places around town and eventually they renovated that and made that an office. Both sides, the Kwon side and our side.

KM: Yes. I recall that before hunters when they would come back they would check-in up there too right?

AM: Yes, that’s when we lived there. Uncle William guys front house, right on the side he had a little shed that was his check-station.

KM: Right, right, okay. And your house was?

AM: Behind. That was a hang-out place for all the kids, everybody. Hunting days, everybody would be up there, kind of just relax, wait for the hunters to come in. When you see the jeeps coming down, all the kids be running along and looking at the game and everything [Figure 49]. One time had guys coming in with antelope on their hood. They yell, “Hey, the guy shoot antelope.” It’s deer season and here comes these hunters they all happy because they got their deer. “They get the deer, antelope.”

Figure 49. Buck and Children at Kōʻele Hunters Check-in Station (Aurelio del Rosario Collection, ca. 1960)

KM: They were driving up with antelope?

AM: Yes.

KM: And what, tagged? [chuckles]

AM: Yes. Had the deer tag and everything on it. Now I got to call my father he’s out in the field. I called him back and he starts his investigation. Have to arrest the guys and process them…

KM: Auwē!

AM: They were so happy coming in, when they finally realized what they did, you could see them…

KM: Shame yeah, though!

AM: Yes. And you know with all the people there. All the people right there looking. Everybody scratching their head. “How can these guys make a mistake?” I think it was people who should have known the difference.

KM: Yes. Auwē!

AM: That was a fun place to be ‘cause all these activities. And all the trees, we all climbing on the trees and playing around. There was this character, Uncle William’s boss, Joseph Medeiros. He was a real rascal guy. He’d be playing chase master, chase us up the trees and acting like a kid too. He was real good fun. He’s still like that [chuckles], real rascal, retired long time ago, he’s on Maui. He was one of the real characters of the place.

KM: So living at Kōʻele, was good?

AM: Oh, yes.

KM: Did the families often get together? Was there a camaraderie?

AM: There was. [thinking] How can I explain, it was just kind of a natural thing, I guess.

KM: Yes, of course.

AM: It was families there… I guess not real planned things or anything like that. We just go hang out with them and do whatever. The other big part of that group up there was like headquarters for the horse club.

KM: Right.

AM: All the horse people would be up there too. And then they had their own corrals and their own Quonset huts and everything.

KM: Was that makai side of the road or?

AM: No, was still mauka side of the road.

KM: Okay.

AM: There was a smaller Quonset hut that was theirs, and a corral where they kept their horses and everything. There was a big banyan tree. The banyan tree is still there.

KM: Right, okay.

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AM: They used to get together under there after their work projects. Drink beer and make chicken hekka or pūlehu or whatever. Horse races.

KM: Yes, wow!

AM: They used to get always drunk…

KM: That involved more people from the community, not just the Hawaiian families?

AM: Yes. That was a lot more people. The ones I remember was Obados, Nishiyama, Donald Nishiyama's father, Jue Nakamoto the one runs Emura. Who else, Sol Kahoohalahalas family. Probably many more that I forget, but that was kind of the core group with the Kōʻele gang.

KM: Yes.

AM: Yes, it was good fun.

KM: Where were the horse races?

AM: The horse races was right from up where the tennis courts is now.

KM: Yes.

AM: That road wasn't paved yet.

KM: Yes.

AM: After the guys get good and drunk, they would go way up on the top of there. Somebody would start them up, they come tearing ass down that road and right around where the hotel parking lot is, there as kind of a little turn and had two big key posts and that was the finish line.

KM: Hmm.

AM: And it's amazing nobody got killed because from way up there man they tearing down, downhill. I don't know who's was the best horse in that one. I remember the races but I don't remember any winners. I guess if you survived, you win. [chuckling] That was spooky. Sometimes you might have a bunch of horses, four or five horses at once running. That's what alcohol does. They come brave. Poor horses, lucky none of the horses got injured that I know of.

KM: Were there still any cattle out around at all in the '50s that you remember?

AM: The only cow, one cow that I remember was one that Uncle Lloyd had. I think the name was Lulubell. He used to keep it in that pasture right in the front and here and there put it out, I guess stake it out. I don't know what happened with that. Try ask Paulette or Joyce, Joyce Jacobs now. She might remember that.

KM: I wonder… Ranching though, and as we've talked a little bit before, because the ranch was such an important part of this island's history.

AM: Yes.

KM: Uncle Ernest, his heart. Did you hear stories about what it was like ranching? Since they weren't doing it already by your time, it was pau but… Did they talk about?

AM: They talked about the ranching but it didn't really sink into me. If I go with Uncle Ernest, he would tell me how he checked the pipeline like that. I kind of liken it to how now we talk to the kids about pineapple. They looking at us with, "What you

talking about?" It doesn't sink in and I guess when they were talking about cattle, "We had cattle here, this was a fence." Get only pineapple over there, only hunting area, so it didn't sink in to me at that time. And I wasn't really interested in cattle, I was only interested in mostly hunting. When they talked about, "Over here had sheep," then my eyes perked up, "Wow, wild animals that we could hunt." But the ranching operation itself, it was so foreign to me. I guess, "These guys talking about real ancient history," and yet it was not even five years earlier, probably.

KM: Yes, that the ranch had closed, was finally closed.

AM: I get that same look that I used to give, the kids give that. We get now when I talk about pineapple.

KM: It's a really good analogy, you're right because you see you're removed from the experience.

AM: Yes, you're removed and just a few years and it's…

KM: Yes.

AM: It's gone. And just like when they talk about the war years. You know Uncle Ernest or whoever did this, there used to be bomb shelters at Kōʻele.

KM: Really?

AM: Yes. And it was simple. The one I remembered was would be somewhere near the east wing of the hotel now. It was an L-shaped trench, it couldn't have been more than six feet deep, I think you had to crouch. You could go inside and I'm not sure if had little cut-outs where you could sit down. It wasn't for long term, just something you could go inside and if something was happening you could run away for a little while. We used to go play in there as kids. Then I don't know what happened to it, basically they filled it in or…? It seemed kind of spooky though.

KM: Was it covered over?

AM: Yes, was underground.

KM: A puka underground?

AM: Yes. You go in, from both sides I guess you could go in. Must not have had a very deep cover, maybe a foot and a half or so. Maybe total, the bottom would have been eight feet below. [thinking] Yes, must have been about eight feet down, and you go down. Kind of spooky looking.

At Kōʻele, for kids was a terrific place to grow up. There was always something to do, hiking around the hills, playing in the hills.

KM: You used to go holoholo, go up Kaiholena side?

AM: Yes. That was all our playground up there. Getting into mischief, trying to, there were always deer up there. Our big project sometimes was to try and catch one another's deer. We just like wild coyotes trying to read tracks or what else. Trying to figure out a way, we never caught nothing.

Was good fun. I remember one guy from the city. He bent the tree down with the rope and then put the noose and then the trigger. We said when the deer steps on this it'll trip [made sound] going huki the deer. He was able to make it and set

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it up but never caught anything. [chuckling]

We also went hiking all around.

KM: Did you folks go, you know the tunnels that come up from Maunalei?

AM: Oh, yes. I was a chicken in there, I was a little kid. When I go through I'd see faces in the walls and stuff, I'd start screaming. They would have to bring me out. [chuckling]

KM: How long is it… and is there a place name for the area exactly? Do you know?

AM: For the tunnels?

KM: Yes, or where the tunnel comes out?

AM: [thinking] Much later, I think where the tunnel comes out the first tunnel is Hulopoʻe Gulch. Of course they dug it so they could run their water line through from Maunalei.

KM: The reservoir is there like in the 1921 photograph. The big reservoir?

AM: The big one.

KM: And the pipes. You know the one before Sakamoto? The one that's still there now, I should say.

AM: Okay. That was the first one, yes? And then later on they made two more up there?

KM: That's towards the Nininiwai side, coming this way?

AM: Yes. That's where right above the golf club house. There was a big one there.

And then little bit more, just below the tunnel, there was a smaller reservoir in there also. That one was small. That might have been plantation too, I think.

KM: There are all of these things we're trying to see if we can just figure out and tie in, were there plans for them. Again, who made it? I'm hoping we can find some sort of accounting of it.

AM: Yes. It's all, for us a lot of those things were not in use already.

KM: Yes.

AM: Like the little reservoir below the tunnels, was so overgrown you could hardly see it. It was really steep in there, we didn't get in there too much. And the other reservoir was already out of use. The existing one now, was right back of the house.

KM: Yes.

AM: When it rained there used to be a little bit of water in there. We used to go play in that water and fool around in there. Have to get a time-line on when all these water products went in.

KM: Yes. It's very important because water has been a significant factor in all facets of economics on Lānaʻi.

AM: Yes, that's an important thing. I'll go try look what I have with the Munro manuscript.

KM: Yes.

AM: He has a section in there, had James Munro I think, wrote little bit about the water.

KM: Kōʻele, real quickly, we're change gears a little bit. Stories of place. How was Kōʻele growing up compared to say the weather. They talk about the mist always being a prevalent factor I think, yes?

AM: Yes.

KM: Did that play a part of it in your life?

AM: At Kōʻele?

KM: Yes.

AM: When we were there the forest seemed like real thick. The trees, big cypress trees would be right up next to the house. When had weather like this, it would be very dark and cold and damp.

KM: Yes.

AM: And if the wind started blowing with the damp ground, a lot of times the cypress trees would come crashing down. In bad weather, this kind of weather, seemed like more days. You talk to all the old-timers, they say, "Oh yes, the weather before, it was always wet."

KM: Yes.

AM: I'm not sure if that's true or not but it sure seemed that way. Leading up to Kōʻele because the roads weren't paved it ended near Iwiʻole and where the old archery range was, just up that hill.

KM: Yes, yes.

AM: Was right about there, the end of the pavement. Beyond that, it wasn't paved until maybe after '56 I think, 1956. You come up, all dirt road and if you don't have 4-wheel drive, lot of times if you come over there you going get stuck. That seems to make the bad weather even worse. That's the kind stuff you remember. It was real remote, seemed really remote.

Remote, cold, another to emphasize the cold, had kerosene heater. Had old out-building, we called it the wash house, we had washing machine, the water heater, it was a kerosene water heater.

KM: Yes.

AM: The roof leaked, was a terrible roof on that thing. You get bad weather, the water heater not going work.

KM: Pio?

AM: Pio. [chuckling] "You guys take a shower with cold water."

KM: [chuckling]

AM: More cold you going be more you worry about the cold weather. It's all emphasized on the cold and damp.

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We had a fire place in that house. My mother would… everything would be damp, so she'd put the towels so they would dry out a little bit, keep things little bit dry.

KM: Yes.

AM: That wasn't a very good fireplace, you could make a roaring fire in there and I'd be right next to it, it wouldn't radiate the heat.

KM: You know the, you mentioned the cypress trees. You know the big pine?

AM: Yes.

KM: That's a Norfolk. The big old one?

AM: So I've been told, that's the Norfolk, yes. All the rest on Lānaʻi, or nearly all the rest are Cook pines. If you ask me, I cannot tell one from another. You look at, "well, maybe little bit difference but…"

KM: Did you ever hear anything about that old pine, when it was planted, or?

AM: Not really, we used to call it the Giant Tree. We didn't question how old it was, who planted it or…? The older people said, used to have a house around the tree, that was the managers house I guess.

KM: Yes. You can see it in the old photographs, the tree is right next to…

AM: Yes, how it is, right there, yes.

KM: The tree that got split by lightning. Not that one right? Or it was?

AM: I think it is that one.

KM: Was that one?

AM: Yes.

KM: Oh, okay.

AM: I think it is that one. And if you look at that tree it is kind of…

KM: Double?

AM: Going up double little bit. I think at one time one of the tops broke off too.

KM: Ahh.

AM: And one time, Nani's [Noelani Kwon] cousin when go climb up the tree, Jimmy, Jimmy Gibson. He went up put up a flag, came down and get good licken from Aunty Eva. [chuckling]

KM: You mentioned Gibson's, were the Gibson's still up there when you were there?

AM: No. I not sure how the connection is yes, from that Gibson.

KM: Yes.

AM: We hear the name we don't, like there was a Gibson up there and then Nani's aunty married…

KM: A Gibson, yes.

AM: A Gibson. And then Walter Murray Gibson.

KM: Yes.

AM: Okay, now what's all that connection?

KM: Walter Murray Gibson, then Henry Gibson's son and it was… Walter starts here, Walter actually started the Lānaʻi ranch. The old Kōʻele ranch that's shown on some of the maps there, in the 1870s?

AM: Yes.

KM: Coming down to this, was it John or, the Gibson that lived up at Kōʻele.

AM: Yes.

KM: Basically where Aunty Rebecca's house is now, they said the house wasn't that far out, yes?

AM: Yes, right behind. And when we grew up didn't have the house in there. But there might have been one like an out-house. You could see there was some kind of dwelling there because of the pipes.

KM: Even steps?

AM: The steps.

KM: There's some steps down below too. You know below Aunty Becca's house?

AM: Yes.

KM: Did you ever hear, you never heard anyone tell you, "How come it's called Kōʻele?"

AM: No.

KM: Or Kaiholena like that?

AM: Kaiholena, the first inkling I had of it relating to a banana.

KM: Yes.

AM: Was from Uncle John, we used to call him John Maile, Kaiaokamalie. He was the first one that mentioned to me, iholena is a banana.

AM: We growing up, we didn't even use the name.

KM: ʻAe. Now if you come below the ranch, has the old Kihamāniania place. You know where the old church, school-house is?

AM: Yes.

KM: Did you folks ever hear, go over there, did you hear anything about that, that you remember?

AM: [thinking] Only when we were on the golf course like that, we'd go past that and we'd see the wall, someone would say, "That's the old church or whatever." But spooky we no go in there.

KM: Did you hear that there was a cemetery there?

AM: [thinking] We did know there was graves there and more reason to stay away.

KM: Yes.

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AM: We would go, “Okay, graveyard, just leave that place alone,” and nobody go dig around in there and look around. That was a spooky place. You could just, I think that’s the number three or number four fairway on the green.

KM: Yes, the green.

AM: You can see it right in there. One other place that, I’m not sure if it’s just kids local knowledge or whatever, some people say, “Iwiʻole gulch, going down, that’s the ninth fairway going up there, get graves too.”

KM: Oh.

AM: Or the kids would say, I don’t know how they would know, they would pass it on but… We used to walk home from school too sometimes, we walk, we got to cut through there. I was kind of leery about going through there.

KM: Walk fast? [chuckling]

AM: All, walk fast. Was really spooky place, tall grass and everything.

KM: Yes.

KM: Speaking of that, did you ever hear of huakaʻi pō, you know, night marchers or something? Did you ever hear anything at Kōʻele? Or have any unusual experience?

AM: [thinking] I think was more when we go camping, kids go camping like that. We would talk about “white ladies” and “marchers” and this and that. We would be talking and then we start seeing things.

KM: Yes.

AM: No, at that time no, in thinking back it was just imagination rather than actual occurrences.

KM: Yes, okay.

AM: We’d hear about marchers and one of them, I guess this is local knowledge for kids. I can’t recall any adults talking about it. Like had a Hawaiian trail coming up from that side, passing the hospital.

KM: Yes.

AM: In the back of here, office parking lot.

KM: Yes.

AM: On Nani street and then continuing on along that, skirting the hillside and then towards Kōʻele.

KM: Yes, yes.

AM: They would say, “People walk and you could hear them talking,” and this and that.

KM: Yes.

AM: Of course we were all scared too of it.

KM: Uncle Koa talks about it, mentioned it too.

AM: Yes. I guess, I cannot recall any adult talking to me about it. The kids all seemed

to know.

KM: Yes.

AM: And they must have heard it from someone. I guess the older kids telling us, “This is the trail,” that’s where they passed when they marching.

KM: Yes.

AM: But no, I’ve never seen anything like that.

KM: Okay… As you’re growing up, at some point when did you decide you were going to follow sort of, in the forestry, fish and game thing?

AM: Not until it was [thinking], I guess, my father was, I was thinking, “well, he’s going to retire pretty soon.” Way back, I got into the volunteer officer program. He said, “Get into this so that in case you want to, get opening, you’ll be ready to go if you want.” And I wasn’t really interested, I was interested in going into ranching. And that’s why I went to the university, in animal science. Then I spent summers on Big Island, Parker Ranch and with Dr. Smith at the race track training horses.

KM: Oh.

AM: Went to the mainland to go learn shoe horses one summer. I was doing all that kind of stuff. In the summer of ’71 or ’72, I was working up there. Towards the end of my summer there this cowboy Uku Allen Lindsey.

KM: Yes, I know him.

AM: You know him? Uku?

KM: Yes.

AM: He gave me good advice. He said, “Albert, you went school, you went university, you get all this education. Cowboy is good fun but it’s not a life. No more future…”

AM: Then later, I worked one year at Dole and then my father retired and I applied for this job, and got in.

KM: What year was that?

AM: I started in 1977 with the state, next year going be thirty years.

KM: Yes, you see, that’s interesting. I remember when you came back, I somehow just always assumed you came back and was with the state already, but you spent several years?

AM: I was with Lanai Company at first and then with Dole and then with the state.

KM: Even when we came back with Emory [July 1975], you were with Dole even when we came back with Emory?

AM: When you were with Emory, I was with Lanai Company.

KM: Lanai Company.

AM: Yes. Was with Lanai Company doing lots of odds and ends jobs. Lot of times we was scraping for work and trying to figure out what we’re going to do. They were kind of spinning their wheels a lot of times.

KM: Yes…

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KM: But you know… If we talk about changes for a moment on Lānaʻi.

AM: Yes.

KM: You look at Kōʻele what do you think, today?

AM: Kōʻele, we hoped it could have remained like how we knew it in our youth.

KM: Yes.

AM: But later on in our years we know it's a valuable piece of property, it has to be put to its highest use. I'm pretty happy with what they've done there. And still allowing the Richardson's, at least them, to remain there for as long as they have.

KM: Yes.

AM: They could have easily said, "Well you guys, get out."

KM: Sure.

AM: And not even consider their needs. Yes, I would much rather have it the old way but this had pretty decent results.

KM: Do you have some thoughts, if I may ask you, I've already spoken with some of the ʻohana about this. The last two houses that are, and of course those houses aren't the houses that were originally there. They were brought from further in the heart of the ranch out to that edge there.

AM: Yes.

KM: You know there's something about driving up there today. And when you see those houses, there's still something inside your naʻau that, it feels kind of good I think because it's something that you're familiar with.

AM: Yes.

KM: Have you had any thoughts? Have you talked story with any of the ʻohana at all about? Do we try to keep? Does the community try to keep that small bit of the landscape intact and use it as a resource that can benefit you know where we, the present day is as well, but also keep us attached to some history. Or is it just a lost cause, let it all go?

AM: Yes. It's a hard one because everything changes.

KM: Yes.

AM: Especially with older buildings. When we left there in 1970 that house was really falling down and ready to go. I was really surprised that they renovated it and made it offices.

KM: Yes.

AM: And after that they turned it back to residence here. Pablo Liberro lived up there.

KM: Yes.

AM: At what point are you going to say, "Well, I see now we have to say good-bye to these buildings."

KM: Yes.

AM: I'm not sure what to do with those. [thinking] You feel like you should preserve it, but then at what point, you going say, "Well, how much money it's going to cost?" If you have unlimited supply of money, you could do something.

KM: Sure.

AM: And then what form will it take? Will it be, you going to make another village there? Where people can see how the ranching days was or just maybe just this interim period over here to document or preserve. From the eighties, the last twenty years.

KM: Yes.

AM: Each period has its own special charm…

KM: It does, history, charm.

AM: History, it's moving.

KM: Yes.

AM: Which one? Everybody has a different piece that they want to preserve. My piece that I would like to preserve, would be maybe just the phasing out of the ranch, Kōʻele Ranch. And then the period I was there as a little boy. It would be from 1950s or up, say, '53 to '69, '70…

KM: That is a unique facet of Lānaʻi's history. If we lose this entire landscape to this contemporary…

AM: And it's starting to eat away there now.

KM: It is. I don't know, you feel kind of minamina.

AM: Yes.

KM: Every time you drive there.

AM: Yes. For me I would like the hotel to end their extension, and just keep that corner at least.

KM: Yes.

AM: Would have been nice if they could have deeded that property over to the Richardson's, at least someone that they could keep it.

KM: Yes.

AM: But that's not going to happen.

KM: No.

AM: The next best thing would be kind of like you say, educational or cultural center use where you can use that. You have to I guess present it to Murdock in that way, where it's going to benefit him.

KM: Yes.

AM: Be something that his visitors can benefit from it.

KM: I truly, I do believe in my gut that if we can work on protecting that remaining corner of that landscape.

AM: Yes…

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Richard Munro Towill (with son, Rick Towill)
June 29, 2007
Lānaʻi Oral History Interview Program
with Kepā Maly

Richard Munro Towill (Figure 50) was born on Oʻahu in 1929, and was a grandson of George C. Munro, whom he affectionately called "Pa." His mother was Jane Margaret Munro (daughter of George C. Munro), and his father was Roswell Murray Towill (Founder of the engineering firm, R.M. Towill).

Figure 50. Richard Munro Towill at Pālehua (KPAC-5804, June 28, 2007)

While Richard M. Towills' first visit to Lānaʻi was in 1935, he heard stories and descriptions of Lānaʻi from Pa, other family members (e.g. James Munro and Henry Caldwell) and family friends who had been with Pa on Lānaʻi all his life. Richard spent years with his grandfather, who passed away on December 4, 1963. Richard and his son, Rick Towill were responsible for compiling a highly valued manuscript and family photos, chronicling Lānaʻi's history that had been written by Pa. The manuscript was published as "The Story of Lānaʻi" (G.C. Munro, 2007). Excerpts from the interview with Richard Towill share insights into life at Kōʻele, Pa's background, and care for the families, landscape and ranching business on Lānaʻi. Richard Munro Towill passed away on January 30, 2014.

KM: …Mahalo. Would you just share with me your full name and date of birth?

RT: Richard Munro Towill, 29 of June 1929.

KM: Wonderful! Did I hear you say you were class of '47?

RT: That's right.

KM: Punahou?

RT: Punahou. Rick was '77 and Mark was '07. We're all thirty years apart.

KM: Wow! From Rick your son and Mark your oldest grandson?

RT: Yes. The oldest.

KM: That's amazing!

RT: It's a coincidence, it's kind of a fun thing.

RTx: Good fun thing, yes.

KM: You were born here in Honolulu?

RT: In Honolulu.

KM: Just so we have some basic background. Who were your parents? And we'll go to your grandfather. And some of the stories you were sharing, when we were talking story.

RT: Sure.

RT: My dad was Roswell Murray Towill. He was born in Virginia, and came here in 1924 to work on the construction of those oil tanks for Pearl Harbor. He stayed and married my mother who was Pa's [George Munro] oldest daughter. She was born in 1895. They were married and they had a daughter, my sister Jean who lives on Kāneʻohe Bay Drive, and I, we constituted the family.

KM: What was mama's name?

RT: Mama was Jeanie Margaret Munro. Actually, it was Jane Margaret Munro, ma's name was Jane, that's written on her grave stone. Pa always called her Jean and so they named my mother after her, Jane. They called her Jean and she never knew it till she was applying for a passport years later. The birth certificate showed Jane, my dad teased her about whether her children might have a little bit of questionable legitimacy [chuckles]. They were wonderful people, I'm grateful to both of them. My dad was a civil engineer and surveyor, he started his own practice when I was a year old.

KM: Yes. I'm learning something new here now also is that I assume that R.M. Towill is?

RT: I am R.M. Towill too, but he was the one whose name is on the door.

KM: Oh. How wonderful! You said your father came in 1924?

RT: Yes.

KM: Worked for a while in the engineer and laying out the tanks and things at Pearl Harbor.

RT: Yes…

KM: On your mother's side of the family, her father and mother were? And you mentioned...?

RT: George C. Munro and Jane Wright Tate Munro, Jean Munro.

KM: You shared too that your Pa, grandfather, George Munro had come here originally in 18...?

RT: In 1890. As a young boy, he was interested in all natural phenomena, particularly interested in birds. He and his brother Hugh took a mail order course on taxidermy. He began collecting bird skins and things. In 1890, Henry Palmer who was employed by Lord Rothchild to go and collect bird specimens from the Sandwich Islands. Contacted Pa and two of them came up here on the steamer in 1890. Collected bird specimens throughout the Kingdom.

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KM: Yes, that's right. I think you shared that they did work on Kauaʻi?

RT: Yes. That's where they spent a lot of time on Kauai. Frances Gay was very, very kind and helpful to them. And Frances Gay offered him a job, if he ever wanted to work on the Gay and Robinson ranch.

KM: Makaweli section?

RT: Yes.

KM: Was he part of the Niʻihau operation also?

RT: No.

KM: No. Just Makaweli section.

RT: Yes. He was there from '92 until… when did he go to Molokaʻi, Rick? That escapes me, I will look in the papers. He was there probably five or seven years.

KM: I think you said around 1897 or so. That would be right, I think so.

RT: He went to work there in 1892, at Makaweli.

KM: And then went to Molokaʻi, about five or something years later?

RT: Years later, right.

KM: Before going to work with the Gay, Robinson Ranch, He did spend about two years with Palmer, on the Rothschild Expedition?

RT: About, I'm not sure.

KM: He worked on Kauai. Did he do collection on other islands in the group also?

RT: They were in Kona when they finally left the expedition and went to Kauai to join the Robinson's.

KM: Did I hear, did he do a collection on Lānaʻi at that time...?

RT: I don't believe he did.

KM: Only on Maui? Do you recall?

RT: I don't recall that either.

KM: Okay.

RT: They were on Kauai and Kona. I'm sure the other islands also.

KM: Okay…

RT: He learned his Hawaiian from the Hawaiians at Makaweli. He spoke very well. He was a stickler for having things right. And that from him to my mother, she was always very exact, we don't have any grammatical errors and all that.

KM: That's important to know that about your Pa. He had some command of the language then?

RT: He was very fluent in the Hawaiian language. He needed to be, to manage the ranch on Lānaʻi.

KM: Yes.

RTx: That's how he was able to complete the genealogy as well.

KM: That lends an interesting facet to history in that unlike Kenneth Emory when he came to Lānaʻi to do his research in 1921, '22. He didn't have a command of the language. But your grandfather was able to communicate and speak the language with the people.

RT: Yes. I'm not sure whether he said, "Lanai" or "Lānaʻi."

KM: When did Pa leave Molokaʻi...19...?

RT: In 1905, I think it was.

KM: In 1905, that's good. By that time, Charles Gay and his Hawaiian wife, Luika, Louisa had already purchased some large tracts of Lānaʻi.

RT: Yes.

KM: Hayselden and them were basically all out of the picture already, although Henry Gibson and a few others still were there.

RT: Yes.

KM: The important note here is that Gibson himself died in 1888, Hayselden and Talula, Frederick and Talula inherit the estate and they begin this process of trying to make Lānaʻi economically sustainable for them. Ranching is really formalized but it's still extensively sheep. In about 1907 or so, Charles Gay is entering into some significant mortgages with Waterhouse, Bishop them as I understand, and at that time they're still saying there's 14,500 sheep estimated on the island in about 1907. In this time Pa is back in New Zealand, he receives a letter now because in 1911, thereabouts?

RT: Yes, in 1911 they hired him. He'd written a letter applying for the job to Waterhouse Trust Company. The wire came back, "Come immediately. When can you come?" That must have brought great happiness to the farm house in Ruatangata.

KM: Yes. You also said he was cautious, he didn't just pop and ship up his whole family.

RT: No. He wanted the family to stay down there until his managership of Lānaʻi was assured. Because he said he didn't want to do managership with somebody else counter managing his decision.

KM: Okay.

RTx: The land at Ruatangata was poor.

RT: It was not a good piece of land. He and my Uncle Doug worked to irrigate the lower area there. That was of course a result of his experience here in the islands, the Hawaiians were their irrigation system. James said to stick the shovel into the ground and take out a shovel full of dirt and then let the water trickle in, fill it up. And then wherever the direction the water went out of this puka...

RTx: Lua.

RT: Not a puka, it was a lua. They dug another hole and then kept going in the downhill direction. Kind of interesting.

KM: And thus, they were able to irrigate some of their own crops.

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RT: That's right.

KM: Interesting

RTx: And the family that remains there today, I don't believe there were many owners, maybe two owners of that land. The people who had it, we went and visited them. They still refer to "Munro and his ditches" on that land.

KM: How interesting.

RT: He said he'd liked to have known Munro. I guess he benefited from the ditches.

KM: He gets settled on Lānaʻi finds that... And there's these beautiful collections of photographs that your family has kept, fortunately showing facets of the Kōʻele managers and residence area.

RT: He kept all those and they were all in one box to be included in the book. That was his plan. We're fortunate there. Kenneth Emory made an album and pasted his pictures into one of those albums with black pages and all. Gave it to the Munro's as a gift for their hospitality when he was there.

RTx: There's a sister album that's located at Bishop Museum and it's interesting some of the images that from a photography standpoint… Like I remember some that were taken at Kaunolū. Some will be back lit so they were reverse images between one album and another. Kind of fun to see.

KM: Yes.

RTx: There was a picture of Kenneth sitting at Kahekili's Leap. One shows a really… there was a long exposure and a short exposure. That gave you a whole different feel for the same view.

KM: Yes.

RT: The same. Oh, I see.

KM: It's very interesting to see.

RT: Kenneth when he was at Punahou got interested in photography. His dad set up a dark room for him. He wasn't just somebody who took pictures and had it developed. He used his own equipment.

KM: Yes. I see in the letters that Kenneth was writing back, his letters are full of much more detail. You were talking about the hospitality and friendship that he developed with the Munro family. Both the elder and the children and nephews. Hector was?

RT: Hector was Pa's nephew.

KM: Yes.

RT: The son of his brother Hector down in New Zealand who came up to work with him on the ranch and then work for the pineapple company.

KM: Okay. In 1911, your Pa gets situated on Lānaʻi. Did he develop the water system eventually that came up out of Maunalei? Do you know? Did Charles Gay do some of that? Did you hear?

RT: Oh, I can't really give you that information. It's in the book on the water systems.

KM: Yes.

RT: He didn't... Most of the tunneling work and all that was done when the pineapple company had bought the island. His son James was very active in all of that. Most he did was getting the pine trees planted up on Lānaʻi Hale.

KM: I'm going to ask you to repeat this story just because it's nice to hear it from a personal prospective. We see this large, and it is a true Norfolk pine. It happened to be situated right in front of the house that your grandfather was living in.

RT: Yes. The house the Hayselden's had lived in. They called it the ranch managers house, I guess. Who was it, Alika Dowsett was up there managing at one time.

KM: Yes. Before Pa?

RT: Before Pa.

KM: Okay. I know Alika Dowsett also had an association with Ulupalakua. I don't know if he was involved with the Baldwin's as well. He was before Pa's time.

RT: Pa went over to visit Lānaʻi. There was a group of people going there to look at it.

KM: This was even before...?

RT: They picked him up on Molokai. He joined them, they went over and visited Lānaʻi. He wasn't without knowledge of the island.

KM: He'd been to the island previously. I recall from some of his writing. Landing I think at Kahalepalaoa, Keōmoku section, being met and riding up. Coming back to that Norfolk though, as that of course, is one of the great stories of Lānaʻi. You have the Norfolk standing over there. Of course, Lawrence Gay, when he did his "True Stories of Lānaʻi." He describes shortly after they arrived on the island that a lightning had hit that same tree also.

RT: Yes.

KM: Struck it. Did you hear stories about that?

RT: When we went there in 1937 there was a big scar on the side of the tree. I guess it had been hit by lightning several times.

RTx: That particular time he said the lightning had come down, hit the tree and then hit the stove, went down to the floor and killed the cat under the ranch house.

KM: Yes. And it gave one of the children a knock also.

RT: Yes. That is a true Norfolk pine. Then Pa, in his note said that he had trouble getting seeds for the Norfolk pine trees. And then that's as much as he said about the seeds. Then somebody must have given him some Cook pine seeds and told him... [chuckles] Or maybe the person thought they were Norfolk, whatever happened. But the trees do their work, so that's fine.

KM: And again, the revelation or the value of this came about because your grandfather in the night time, I guess, or the fog drip?

RT: Yes. When the fog rolled in, in the evening they would hear the drip, drip, drip of the water from the trees falling on the metal roof over the dining room. Pa, in his inimitable way referred to this as fog drip.

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KM: Amazing!

RT: Lot of the engineers and scientists think that fog drip is a rather ridiculous concept. But it isn't, it's a natural phenomenon that he felt... He had great power of observation, he could observe things, birds and bird behavior. And then that same curiosity transferred to plants after Charles Forbes had helped him to learn to botanize. He always had to understand the reasons of something. And the reason this water was falling, it wasn't raining, it wasn't raining over the kitchen it was just over the dining room.

KM: Yes.

RT: It was fog drip.

KM: Interesting. Rick, this morning on a brief interview on TV, described your grandfather, his great grandfather as really an early... Perhaps one of the original environmentalists here in Hawai'i. You were saying, he just had this keen sense of observation, of nature about him.

RT: And he had the wisdom to work with nature rather than against nature.

KM: Yes. Very important, the concept.

RTx: Perhaps his ultimate challenge too was, his work in the dry forest. One would kind of give up readily, I know I would. But it was he, and he persevered and always tended the dry land.

KM: Yes. He causes... On this map, 1938 or '39 map of Kō'ele that I brought, there's an area that's called the "Experimental hot-house." It's building 1050 on the map up there.

RTx: Yes.

KM: I think you were saying that he finally received these loads of seeds that ended up being Cook pines, Cook Island pines. Yes?

RTx: Yes.

KM: You were talking about him having the cowboys or whoever plant them into gallon pots, get them going and stuff. Carrying them up on to the mountain to...

RT: That was a little bit before 1938, Kepā.

KM: Yes. This map is just depicting what the complex was at that time.

RT: At what time?

KM: In 1938.

RT: '38.

KM: This of course happened, as you said much earlier. I go through the territorial forestry records and I see that your grandfather, Pa, was actually appointed, designated as the Territorial Forester for Lāna'i. In the period between 1914, 1915 to 1919.

RT: Yes.

KM: I believe the first year there were like two thousand pines planted, within a couple years, eight thousand more. There were thousands.

RT: Thousands.

KM: He thousands of these planted.

RT: You can find that out from Sol Kaopuiki. I think he tended the nursery and participated in that planting.

RTx: Tonight you'll meet Miyoko Shimoda, who is going to be here, she lives in Kāne'ohe. Her father was Susumu Nishimura who was a cowboy early. I think he was one of the cowboys that helped.

KM: Yes. I remember Susumu.

RTx: He'd take the plants mauka and plant them. He ultimately had that service station.

KM: What is Miyoko's last name?

RTx: Shimoda.

RT: S-h-i-m-o-d-a.

RTx: I believe their eldest son Wade will also be there tonight.

RT: Wade applied to MIT and I was in those days interviewing the high school students that were applying to MIT to give them the human stuff. Wade was accepted. He is now a counselor. That's very nice, I don't know the mother.

RTx: She sounds like a very nice lady.

KM: Wonderful.

RTx: It was kind of interesting on your map there. There's an image taken showing the corral... Now I get an orientation because now you have where the corral is located there... This particular one here with the corral, that's looking out towards Kānepu'u.

KM: Yes. Across this section here.

RTx: It's kind of fun to match it up.

KM: It is to put things together and figure out where it was. Rick, what year were you born?

RTx: I was born, 13th of March, 1958 in Honolulu.

KM: Okay. Your mom? Is it Pat, Patricia or?

RTx: Patricia Anderson. Anderson was for her step-father's name. Her father was Gordon Young, his father was J.L. Young engineering company that built the immigration building downtown...

KM: Wow! Prominent, beautiful features. Her mother was under the Rice, Waterhouse line?

RTx: My grandmother's mother was [thinking], she was the youngest daughter of the Rice.

KM: William Hyde Rice, yes.

RT: Mary Rice Scott.

RTx: There you go.

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KM: We see that as a result of your grandfather's observations and his recognizing the need to manage a landscape, particularly like Lānaʻi very carefully. Lānaʻi was given a reprieve from the depredation of the sheep and wild goats. He describes trying to exterminate the goats and really get rid of pretty much everything and focus on the cattle business.

RTx: He was very proud of one of the herds he tended because he shipped... There was an article that appeared in a New Zealand periodical, he penned in on the side of it. He was very proud, this was the first herd that he shipped up to...

RT: Back to New Zealand.

KM: Wow! Interesting.

RT: He had bought sheep and cattle down there.

RTx: And shipped them up.

RT: Shipped them up. He was very interested in everything that was going on and doing it well.

KM: You, if we come up to you... Was your mother born on Lānaʻi?

RT: She was born on Kauai.

KM: Kauai. Okay. You, as you said, born in '29. Pa was on Lānaʻi until '35 thereabouts, '34?

RT: Well he was kept on as a consultant for many years by Dole.

KM: I see.

RT: Whenever he went over there he could stay in the old house. I guess his forestry activity probably ended around '35.

KM: I see, okay. What was the occasion of your first trip to Lānaʻi?

RT: I was in the second grade. My dad had a job over on the Big Island. He shipped over the 1935 Ford banana wagon. We went over on the Waiʻaleʻale and arrived in Hilo in the morning. Pretty-well went around the island. Visited the Hāmākua coast, and in those days it was a very windy trip.

KM: Yes.

RT: We visited Kona where they were harvesting coffee. We spent a night up at the Volcano House where I loved the cold weather.

KM: This was in 1935?

RT: In '37.

KM: Okay.

RT: Pa wasn't over there when we visited, just James [Munro] and Fran. We boarded the Humuʻula at Kawaihae, I think. Spent the night going over to Lānaʻi and arrived in the morning.

KM: Kaumālapaʻu or Hulopoʻe, do you recall?

RT: Kaumālapaʻu.

RTx: By then the pineapple company had built...

KM: By '26 it was pretty much well done.

RT: That was interesting. Jean and my mother got seasick and were feeding fish. It was a fun... That was the first time we'd been anywhere on a trip. Big excitement to me to go on the steamer.

KM: [chuckling] Were you in steerage or were you folks in a cabin? Were they still taking cattle at that time to anywhere?

RT: We were in a cabin.

KM: For a while Humuʻula was still handling cattle and passengers.

RT: Yes. It was handling cattle. There were cattle aboard when we went over. I don't know whether they were on route to Honolulu or... I don't think they unloaded them when we arrived. Yes, because the ranch had been...

KM: I'll go backwards a teeny bit. Your Uncle James, did he work with your grandfather on Lānaʻi as part of the ranch or not? How did he get connected with James Dole and play such a prominent role in the laying out of Lānaʻi? After Dole purchased it?

RT: He was the only son and he had to look after the farm in New Zealand while growing up. I'm sure when they arrived in 1912, he would have been then. He was born in '93. He would have been 19 years old. He worked for the ironworks for a while in Honolulu. I'm sure he spent time on Lānaʻi and helped Pa. But then after Jim Dole bought the island, I guess they hired him for construction of the Lānaʻi City.

KM: Yes.

RT: He did a lot of engineering work. He was not formally trained as an engineer. He had the same common sense of Pa and studied things till he understood them. He was very active in the development of water with Harold Stearns and all of that.

KM: I only know a last name, Root, an engineer. Root? Was it James that helped to lay out Lānaʻi City as we see it today? The roads... Just that square with the park in the middle, that beautiful panoramic photograph that you had from basically sort of the gym area, the old gym.

RT: I have no knowledge of that.

KM: Okay.

RTx: I've heard that from JoAnn...

RT: What?

KM: That he helped to lay out?

RTx: Helped to lay that all out.

RT: I'm sure he did, but I don't know if it was his design. You say there was an engineer named Root?

KM: Root, yes.

RT: That doesn't ring a bell at all.

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KM: Okay. In addition to his engineering work. Working on the water system for Lānaʻi, working with some of the layout of the city and perhaps engineering some of the pineapple fields as well.

RT: Yes.

KM: That's quite an engineering task in itself. James you uncle, also, did he have some hand in designing some of the pineapple planting or harvesting equipment?

RT: Oh, yes.

RTx: Very much so.

RT: The harvesters were... I remember we had a place at Hauʻula, a beach place down there. He'd collect the cones from the tree. They were little pineapples and he would use it.

KM: [chuckles]

RT: He conceived the notion that they could harvest the pineapples by those conveyor belts and booms. And then the big water sprinklers and things like that. He loved to do the things that can't be done.

KM: That's really amazing!

RT: When somebody says, "No, it can't be done" that was a challenge. They moved some houses up there, he said, "Yes, we just put them on the back of a truck and moved them." I'm sure that was something that somebody had said it could not be done.

RTx: Couldn't be done, yes.

KM: Besides your Pa's time, your family actually share several connections with Lānaʻi. Your Uncle James, his family and then you have a cousin who married Caldwell.

RT: Yes.

KM: And Caldwell was?

RT: Henry B. Caldwell worked for the Hawaiian Pineapple Company.

KM: Hawaiian Pineapple Company as well.

RT: He lived on Lānaʻi and Sam, his son, spent some time there when he was a young kid. The Caldwell's were good friends of James…

KM: Interesting. May I ask you, bringing this book together, as I said honestly to you folks when we were on Lānaʻi. A guy named Mike Gordon from the Advertiser...

RT: He called this morning.

KM: He's called me a couple of days ago. We spoke and I just said, "For Lānaʻi, this history is a gift for the people of Lānaʻi. Particularly for the Hawaiian families. It is a connection with their past."

RT: That's right.

KM: "For those who are making Lānaʻi their home now, it gives them something to associate with. History didn't start when they arrived."

RT: Yes, there is a past.

KM: What...? If I may, for you... What is getting this done? For both of you guys... Really mean to you? I think there must be a strong aloha for your Pa and his history.

RT: He was a marvelous man to know…

KM: Aunty Venus [Gay holt] describes a fondness for your grandparents, shared with Charles Gay them.

RT: Yes.

RTx: That was a fun thing that tickled me. When Aunty Venus talked about there, was that picture of Ma standing between Keliʻihananui...

KM: And Makaimoku, his wife, yes.

RTx: He would make her walk instead of ride the horse, when they came from their home to Kōʻele. And Aunty Venus lovingly said, she outlived him by several years. And then that really... That was the one story that really touched my heart when Aunty Venus talked about her papa used to make kālua pig around Thanksgiving and they would put it up in those big cracker cans.

RT: Those were cooking oil cans.

RTx: Then the captain of the Humuʻula asked if he may have some. Papa Gay said, "You may if you take two cans around to Kalaupapa and share with the patients there." That was really touching.

RT: Was it the Humuʻula or was it...?

RTx: We will have to ask tonight to clarify.

RT: I don't think the Humuʻula was going around then. What's the one they were putting the cattle on… Likelike.

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REFERENCES CITED

Alexander, W.D.
1875-1876 Field Note Book No.153. Hawai‘i State Survey Office.

1891 A Brief History of Land Titles in the Hawaiian Kingdom. Hawaiian Almanac and Annual for 1891. Honolulu. T.G. Thrum.

Boundary Commission Testimony
1877-1891 Digitized Collection of Kumu Pono Associates LLC.

Buke Mahele
1848 Buke Kakau Paa no ka mahele aina i hooholoia iwaena o Kamehameha 3 a me Na Lii a me Na Konohiki ana Hale Alii Honolulu. Ianuari 1848. (Ke Kope 1864).

Center for Oral History Social Science Research Institute
University of Hawai‘i at Mānoa
1989 (July) Lāna‘i Ranch, The People of Kō‘ele and Keōmoku (Volume 1 & 2) Mina Morita and Warren Nishimoto, et al.

Coulter, J.W.
1935 A Gazetteer of the Territory of Hawaii. Honolulu.

Emory, K.P.
Ms. Letters of Kenneth P. Emory from Lāna‘i (July 12, 1921 to January 27, 1922). Original from Bernice Pauahi Bishop Museum Archives. Typeset Transcript of Lāna‘i Culture & Heritage Center

1924 The Island of Lanai. B.P. Bishop Museum, Bulletin 12. Honolulu.

Fornander, A.
1916–1919 Fornander Collection of Hawaiian Antiquities and Folk-Lore. Memoirs of the Bernice Pauahi Bishop Museum. Bishop Museum Press, Honolulu. (Kraus Reprint, 1986)

l973 An Account of the Polynesian Race: Its Origin and Migrations. Tokyo: Charles E. Tuttle Co, Inc.

Henke, L.A.
1929 A Survey of Livestock in Hawaii. University of Hawaii Research Bulleting No. 5. Honolulu, Hawaii.

Kalakaua, King David
1888 The Legends and Myths of Hawaii. The Fables and Folk-Lore of a Strange People. Rutland, Vermont and Tokyo: Charles E. Tuttle Co., Inc.

Kamakau, S.M.
1961 Ruling Chiefs of Hawaii. Honolulu: The Kamehameha Schools Press.

Lyons, C.J.
1875 Land Matters in Hawaii. Islander, Honolulu.

Malo, D.
1951 Hawaiian Antiquities. Honolulu: B.P. Bishop Museum.

Pukui, M.K., S.H. Elbert, and E.T. Mookini
1974 Place Names of Hawaii. University of Hawaii Press, Honolulu.

State of Hawai‘i
Ms. Files cited in text from the collections of the:
Hawai‘i State Archives
Department of Land and Natural Resources — Bureau of Conveyances
Department of Land and Natural Resources — Land Management Division
Department of Land and Natural Resources — State Survey Division
University of Hawai‘i – Special Collections, Hamilton Library

The Constitution and Laws of the Hawaiian Islands,
Established in the Reign of Kamehameha III
1842 Hawaiian Laws, 1842; Hawaiian Laws compiled from between the years of 1833 to 1842. (Hawaii State Archives)

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PHASE I ENVIRONMENTAL SITE ASSESSMENT

APPENDIX

G

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April 16, 2021

We were originally contracted to complete a Phase I Environmental Site Assessment for the draft Environmental Assessment for the Kōʻele Project District Amendment.

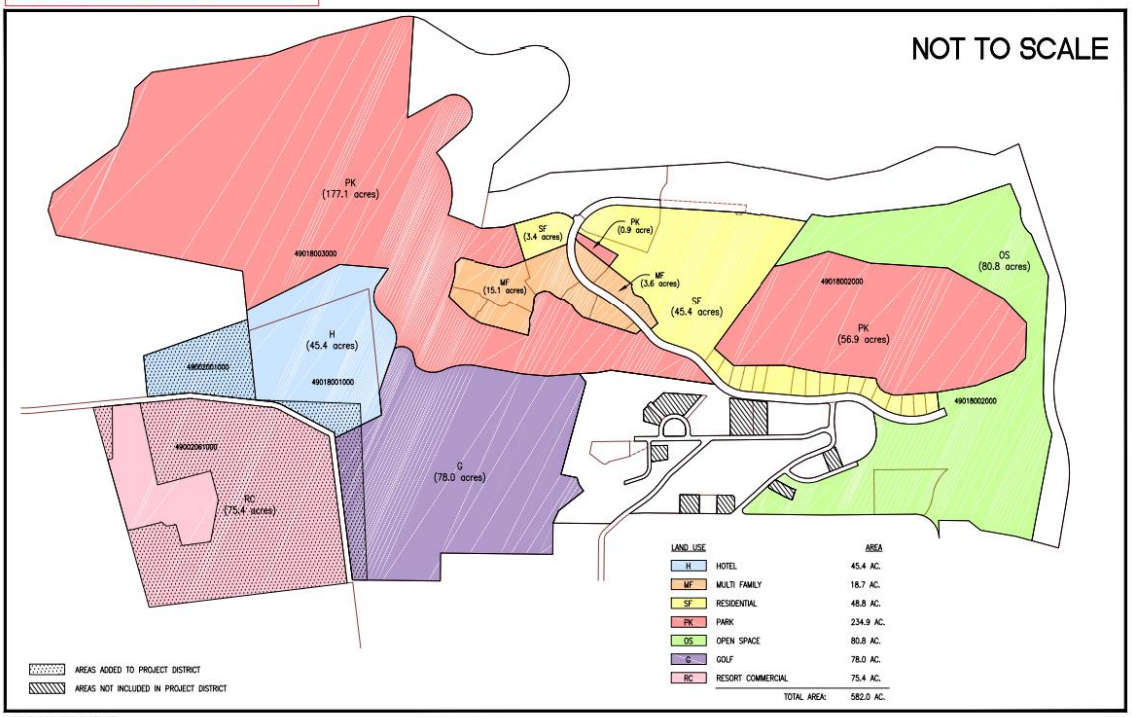
Since the completion of our study, Pūlama Lānaʻi has adjusted the uses and associated acres within the project district. This is reflected in the map below.

Additionally, an inconsistency between MCC Chapter 19.71.080 and Ordinance 1581, 2140, and 2852 was identified by Pūlama Lānaʻi while finalizing their application. A non-contiguous 14.5 acre parcel (TMK: [2] 4-9-002:061 (portion)) is zoned "Project District" in Ordinance 2852, however, no subdistrict designation is assigned to the 14.5 acres in Ordinance 2852. Furthermore, there is no record of the 14.5 acres in Ordinance 1581, Ordinance 2140, and MCC Chapter 19.71.080, where the subdistricts are identified by the number of acres.

Pūlama Lānaʻi has incorporated this 14.5 acre section (identified as "Stables & Tennis Courts" in CIZ Map 2615) into the Proposed Kōʻele Project District Map, it was not identified in earlier maps provided to our firm.

We attest that the results of our technical study, *Phase I Environmental Site Assessment, Lodge at Koele Expansion*, do not change for the approximately 75.2 acres included in our technical study based on the updated map.

Proposed Kōʻele Project District Map



KOELE PROJECT DISTRICT April 1, 2021

Signed

Kacey Swindle
Project Manager
TRC

REF-368

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Lodge at Koele Expansion
1 Keomoku Highway
Lana'i City, Hawaii

October 28, 2019

Project Number: 352477

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EXECUTIVE SUMMARY

TRC Environmental Corporation, Inc. (TRC) was retained by Pulama Lana'i (PL), also referred to as Lana'i Resorts, LLC (also known as "Client" or "User") to perform a Phase I Environmental Site Assessment (ESA) of the Lodge at Koele Expansion project area totaling approximately 75.2 acres. The property is situated to the north and west of the Lodge at Koele Resort property located at 1 Keomoku Highway in Lana'i City, Hawaii (herein referred to as the "Site"). TRC conducted the ESA in connection with the Client's planned redevelopment of the Site that will require a zoning change. The Phase I ESA described in this report was performed in accordance with the scope and limitations of the American Society for Testing and Materials Practice E 1527-13 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E 1527-13). Limiting conditions and/or deviations from the ASTM E 1527-13 standard are described in Sections 1.3 and 7.6 of this report.

Approximately 18-acres of the 75.2-acre Site is currently operated by multiple contractors as a construction lay-down site associated with the renovations to the Lodge at Koele and other development projects on Lana'i. Approximately 57.2-acres of the 75.2-acre Site is currently operated by Lana'i Ranch with pasture area, stables, horses and other livestock. The Ranch provides horseback riding lessons and barrel racing practice areas. Adjacent to the Lana'i Ranch is a shipping container staging area.

TRC has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527 of [insert address or legal description], the Site. Any exceptions to, or deletions from, this practice are described in Sections 1.3 and 7.6 of this report. This assessment has revealed no evidence of recognized environmental conditions (RECs) and/or controlled recognized environmental conditions (CRECs) in connection with the Site, except for the following:

REC No. 1: During Site reconnaissance a large area of staining was observed on the ground around the painting booth. Site personnel indicated that the staining was a result of overspray from wood staining activities using PPG ProLuxe 1 Primary Coat RE Wood Finish Transparent Satin. This would constitute a REC, as this is a petroleum-based product that has been released to the environment.

The following additional findings have been identified during the course of this Phase I ESA that have not been determined to be RECs but may be of importance to the User:

Finding No. 1: The previous use of portions of the Site as part of pineapple plantation activities indicates possible use of pesticides and other chemicals. Disturbance of soils could lead to potential exposures to potential pesticides and other chemicals and should be considered during the redevelopment process.

Finding No. 2: An AST containing propane was observed near one of the residential structures on the Site. The AST is located on the exterior of the residence. No releases have been reported from the AST and no staining was noted at the time of inspection. As no releases to the environment are known or suspected, this is not considered to be a REC.

This Executive Summary is part of this complete report; any findings, opinions, or conclusions in this Executive Summary are made in context with the complete report. TRC recommends that the

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User read the entire report for supporting information related to findings, opinions, and conclusions.

Legal Notice

TRC has prepared this Phase I ESA for Pulama Lana'i also referred to as Lana'i Resorts, LLC (hereinafter "Client" or "User"). This document was prepared by TRC solely for the benefit of the Client and the User. With regard to third-party recipients of this document, neither TRC, nor the Client, nor the User, nor any of their respective parents, affiliates, or subsidiaries, nor any person acting on their behalf: (a) makes any warranty, expressed or implied, with respect to the use of any information or methods disclosed in this document; or (b) assumes any liability with respect to the use of any information or methods disclosed in this document. Any third-party recipient of this document, by its acceptance or use of this document, releases TRC, the Client, the User, and their parents, affiliates, and subsidiaries from any liability for direct, indirect, economic, incidental, consequential, or special loss or damage whether arising in contract, warranty, express or implied, tort, or otherwise, and irrespective of fault, negligence, and strict liability.

1.0 INTRODUCTION

TRC Environmental Corporation (TRC) has prepared this Phase I Environmental Site Assessment (ESA) for Pulama Lana'i also referred to as Lana'i Resorts, LLC (hereinafter "Client" or "User").

This report was prepared for and may be relied upon by Client and User for the purposes set forth herein; it may not be relied on by any party other than the Client and User. TRC will consider authorization for third-party reliance on this report if requested by the Client. TRC reserves the right to deny reliance on this report by third parties.

1.1 Purpose and Scope of Services

The following Phase I ESA was performed for the Lodge at Koele Expansion project area totaling approximately 75.2 acres. The property is situated to the north and west of the Lodge at Koele Resort property located at 1 Keomoku Highway in Lana'i City, Hawaii (herein referred to as the "Site"). A Site location map is included as **Figure 1**. This Phase I ESA has been prepared by TRC in accordance with the American Society for Testing and Materials E 1527-13 *Standard Practice for Environmental Site Assessments: Phase I ESA Process* (ASTM E 1527-13) and is intended for the sole use of Pulama Lana'i also referred to as Lana'i Resorts, LLC per TRC's April 3, 2019 *Proposal for Professional Consulting Services*, authorized on April 15, 2019.

The purpose of this assessment is to identify *Recognized Environmental Conditions* (RECs) at the Site, as defined by the ASTM E 1527-13 standard. The completion of this Phase I ESA report may be used to satisfy one of the requirements for the User to qualify for the *innocent landowner*, *contiguous property owner*, or *bona fide prospective purchaser* liability protections pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), thereby constituting *all appropriate inquiries into the previous ownership and uses of the property consistent with good commercial or customary practice* as defined by 42 U.S.C. §9601(35)(B) of CERCLA.

The Scope of Services for this Phase I ESA included the following tasks:

- Site and vicinity reconnaissance;
- Site and vicinity description and physical setting;
- Historical source review and description of historic Site conditions;
- Interviews with owners, operators, and/or occupants of the Site, and/or local officials;
- Review of environmental databases and regulatory agency records;
- Review of previous environmental reports/documentation, as applicable;
- Review of environmental liens, if provided or authorized to obtain by the User; and
- Preparation of a report summarizing findings, opinions, and conclusions.

1.2 Additional Services

Items outside the scope of the ASTM E 1527-13 standard include but are not limited to the following:

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- Asbestos-containing building materials
- Radon
- Lead-based paint
- Lead in drinking water
- Wetlands
- Regulatory compliance
- Cultural and historic resources
- Industrial hygiene
- Emerging contaminants
- Health and safety
- Ecological resources
- Endangered species
- Indoor air quality unrelated to *releases* of *hazardous substances* or *petroleum products* into the environment
- Biological agents
- Mold

No additional services were performed outside the scope of the ASTM E 1527-13 standard.

1.3 Deviations to ASTM E 1527-13 Standard

The following significant deviations or deletions to the ASTM standard were made during this Phase I ESA:

- TRC did not access the interior of all structures including: residential structures, trailers, and shipping containers used to for storage of construction materials.

2.0 SITE DESCRIPTION

2.1 Site Location and Legal Description

The approximately 75.2-acre Site is situated to the north and west of the current Lodge at Koele Resort property located at 1 Keomoku Highway in Lana'i City, Hawaii. The Site includes a 57.2-acre portion of the adjacent 16,124-acre parcel (Parcel Number: 490020610000) and an approximately 18-acre portion of the adjacent 69,270-acre parcel (Parcel Number: 490020010000), in a mixed residential and commercial use area. Parcel 49002061000 is described by the Maui County tax assessor as being in the agricultural tax class and is currently owned by Lana'i Resorts, LLC with Lana'i Sustainability Research, LLC listed as a Lessee. Parcel 490020010000 is described by the Maui County tax assessor as being in the agricultural, conservation, industrial, and residential tax classes and is currently owned by Lana'i Resorts, LLC with the State of Hawaii listed as a Lessee. A Site location map is included as **Figure 1**.

2.2 Site Improvements

Current on-Site improvements are listed in the following table. A Site layout plan is included as **Figure 2**.

Table 2.1 - Site Improvements

Site Feature	Description
Buildings (stories)	Four (4) single-story temporary construction trailers Two (2) single-story residential structures with a small storage shed One (1) single-story structure with horse stables
Construction date(s)	Unknown
Exterior areas	Primarily unpaved with a dirt construction lay-down site, livestock pastures and vegetated areas
On-Site roads/rail lines	Keomoku Highway and Kanepuu Highway
Other large equipment	Farm/Agriculture equipment including: Post-hole driller, Mower, Tractor, Back Hoe, Gator Construction equipment including: Fork Lifts, Back Hoes, Gators, Boom Lifts
Potable water supply	Water is supplied by deep aquifer wells located in higher elevated portions of the island and is provided by Lanai City/Maui County.
Sewage disposal system(s)	Wastewater is discharged to the city sanitary sewer system, which is maintained by the City of Lanai City/Maui County. Portable toilet facilities are present at the construction lay down and container staging area adjacent to the horse stables on the Site.
Heating/cooling system fuel source(s)	Construction trailers have exterior mounted central HVAC units Horse stable office has a window mounted air conditioning unit Container near the horse stables has a split air conditioning unit
Back-up fuel source(s)	None
Electricity supplier(s)	Maui Electric Company (MECO) supplies power to the island A portable generator is used to power storage containers adjacent to the horse stables
Stormwater system	Run off

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2.3 Current and Historic Site Use

2.3.1 Current Site Use(s)

Approximately 18-acres of the 75.2-acre Site is currently operated by multiple contractors as a construction lay-down site associated with the renovations to the Lodge at Koele and other development projects on Lana'i. Approximately 57.2-acres of the 75.2-acre Site is currently operated by Lana'i Ranch with pasture area, stables, horses and other livestock. The Ranch provides horseback riding lessons and barrel racing practice areas. Adjacent to the Lana'i Ranch is a shipping container staging area.

2.3.2 Previous Owner and Operator Information

Based on information provided by the User (Section 3.0), the historical record review (Section 4.0), and/or interviews conducted during this Phase I ESA (Section 6.0), the Site appears to have been primarily undeveloped or utilized for agricultural purposes associated with the island's pineapple plantation activities until pineapple plantation activities ceased in 1991. The current residential structures and horse stables appear to have been added to the Site by 1992. The Site has been owned by Lanai Resorts, LLC since 2012 and was owned by Castle & Cooke from 1961 to 2012. Mr. James Dole owned the Site from 1922 to 1961.

2.4 Physical Setting

According to the United States Geological Survey, 2013, *7.5-Minute Topographic Map for Lanai North OE W, HI; Lanai North, HI* (refer to **Figure 1**), the Site is located approximately 4.4 miles to the east of the Pacific Ocean, the Site topographic elevation is approximately 1,720 feet above mean sea level, and local topography slopes to the west. The topographic downward slope observed at the Site during the Site reconnaissance is generally toward the west. Based on local topography, the assumed direction of shallow groundwater flow is to the west, toward the Pacific Ocean. However, a subsurface investigation would be required to determine actual groundwater flow direction.

The GeoPlus Physical Setting Maps, supplied by GeoSearch of Austin, Texas, was reviewed to obtain information regarding the dominant soil composition in the Site vicinity. The dominant soil compositions are reported as Kalae silty clay, 2 to 7 percent slopes, MLRA 165 (KcB); Kalae silty clay, 7 to 15 percent slopes (KcC); Koele silty clay loam, 3 to 7 percent slops (KrB); and Waihuna clay, 3 to 7 percent slopes (WoB).

Please refer to the GeoPlus Physical Setting Maps of the GeoSearch report presented in **Appendix A** for further information regarding the soil composition in the Site vicinity. According to GeoSearch, the Site is located in Federal Emergency Management Agency (FEMA) Zone X, which is an area determined to be outside the 100- and 500-year floodplains.

3.0 USER PROVIDED INFORMATION

According to the ASTM E 1527-13 standard, certain tasks that may help identify the presence of RECs associated with the Site are generally conducted by the Phase I ESA User. These tasks include providing or authorizing the *environmental professional* to obtain recorded land title records for environmental liens or activity and use limitations (AULs); providing specialized knowledge related to RECs at the Site (e.g., information about previous ownership or environmental litigation); providing commonly known or *reasonably ascertainable* information within the local community about the *property* that is material to RECs in connection with the *property*; and informing the *environmental professional* if, as believed by the User, the purchase price of the *property* is lower than the fair market value due to contamination. A list of requested information was included in TRC's signed proposal (see Section 1.1). A copy of the User questionnaire is included in **Appendix B**.

3.1 Title and Judicial Records for Environmental Liens or AULs

The User did not provide any information regarding environmental concerns associated with title or judicial records, or the existence of environmental liens or activity and use limitations (AULs) for the Site. Completion of an additional title and judicial record search was beyond the scope of this Phase I ESA, was not requested by the User, and remains a User requirement.

3.2 Specialized Knowledge

The User was not aware of specialized knowledge related to RECs at the Site.

3.3 Property Value Reduction Issues

The User was not aware of property valuation reduction issues regarding the Site.

3.4 Commonly Known or Reasonably Ascertainable Information

TRC was supplied with commonly known and/or reasonably ascertainable information regarding the Site by Mr. Vann Allan, Director of Development and Construction with Pulama Lana'i. This information was used during this Phase I ESA and has been incorporated in this report as applicable.

3.5 Reason for Conducting Phase I ESA

TRC understands the User requires a Phase I for the planned redevelopment of the Site that will require a zoning change.

REF-373

4.0 RECORDS REVIEW

4.1 Historic Use Information

Information regarding Site and vicinity historic uses was obtained from various publicly available and practically reviewable sources including:

- Aerial photographs (scale: 1" = 500') dated 1952, 1965, 1976, and 1992;
- Topographic maps dated 1923, 1925, 1984, 1992, and 2013;
- City directories dated 2002, 2008, 2014, and 2019;
- Local municipal records;
- An environmental database report; and
- Interviews with Site representative(s) and regulatory agency official(s), as necessary.

Historical research documentation is included in **Appendix C**.

Fire Insurance Maps were originally produced for assessing fire insurance liability in urban areas in the United States. The maps provide detailed information (e.g., building construction, facility occupants, storage tank locations, and hazardous material storage areas), which can be used as a resource to document land use and structural change over time. GeoSearch researched the availability of Fire Insurance Maps in the vicinity of the Site; however, GeoSearch stated that Fire Insurance Map coverage does not exist for the Site or nearby surrounding area.

4.1.1 Site History

Operational History

Table 4.1 - Site History

Year	Site History
1952 to 1991	The Site property appears to be used for agricultural purposes; no structures are present.
1992 to 2017	The 1992 historical aerial maps depict the current residential structures, tennis courts and horse stable and associated Lana'i Ranch areas in their current configuration.
2017 to present	The construction laydown Site is added to a portion of the Site to support renovation activities at the Lodge at Koele and other development projects on the island of Lana'i.

It does not appear that topographic contours in the Site area have significantly changed during the time period reviewed. If significant changes had been noted, it could indicate significant filling or excavation activity.

4.1.2 Adjoining Property History

Table 4.2 - Adjoining Property History

Direction from Site	Adjoining Property History
North	Historic aerial photographs and topographic maps depict the area north-northwest of the Site as undeveloped since the 1920's. The area appears to have been utilized for the island's pineapple plantation activities from the 1940's until 1991 and appears to have remained undeveloped since pineapple plantation activities ceased.
East	Historical aerial photographs depict the area to the east-southeast as developed with three large warehouse like structures and multiple small structures likely utilized for residential purposes from at least 1952 to as late as 1975. The 1976 historic aerial photograph depicts some of these smaller structures to be no longer present in this area. The Lodge at Koele facility was constructed in this area in the late 1980's and opened in 1990 and remains in this area in its current configuration today.
South	Historic topographic maps depict the Iwiole Gulch located directly south of the Site since the 1920's. Historic aerial photographs and topographic maps indicate the road referred to as Keomoku Road and the current golf course located in this area have been present since at least 1952.
West	Historic aerial photographs and topographic maps depict the area west-southwest of the Site as undeveloped since the 1920's. The area appears to have been utilized for the island's pineapple plantation activities from the 1940's until 1991 and appears to have remained undeveloped since pineapple plantation activities ceased.

4.1.3 Surrounding Property History

Table 4.3 - Surrounding Property History

Direction from Site	Surrounding Property History
North	Historic aerial photographs and topographic maps depict this area as undeveloped since the 1920's. The area appears to have been utilized for the island's pineapple plantation activities from the 1940's until 1991 and appears to have remained undeveloped since pineapple plantation activities ceased.
East	This area was primarily undeveloped from the 1920's to the late 1980's. The current golf course located in this area has been present since the early 1990's when the Lodge at Koele resort property was constructed.
South	Lana'i City has been located in this area since the 1920's. The current multi-family residential development was constructed to the south-southwest of the Site in the early 1990's according to the Maui County Tax Assessor.
West	Historic aerial photographs and topographic maps depict this area as undeveloped since the 1920's. The area appears to have been utilized for the island's pineapple plantation activities from the 1940's until 1991 and appears to have remained undeveloped since pineapple plantation activities ceased.

4.2 Database Report and Environmental Record Review

A database search report that identifies properties listed on state and federal databases within the ASTM-required radii of the Site was obtained from EDR and is included in **Appendix D**.

The environmental database report identified no records/listings for the Site; however, 15 other records/listings were identified within the search radii of the Site. These properties included those that could be mapped and those that could not (i.e., orphan properties).

REF-374

4.2.1 Adjoining and Surrounding Property Record Review

TRC evaluated the following factors to determine whether additional environmental records should be reviewed with respect to the potential for contaminant migration from the adjoining and surrounding properties:

(1) Whether the property is upgradient or downgradient of the Site related to potential groundwater migration based on the local topography, and the assumed (or known) groundwater depth and west shallow groundwater flow direction;
(2) Whether the property is upgradient or downgradient of the Site related to potential vapor migration based on readily available information pursuant to the ASTM E 1527-13 standard including soil and geological characteristics; contaminant characteristics; contaminated plume migration data; and significant conduits that might provide preferential pathways for vapor migration such as major utility corridors, sanitary sewers, storm sewers, and significant natural conduits such as Karst terrain (vapor migration may also be influenced by the age and design of infrastructure features associated with these conduits);
(3) Property case status [i.e., whether the State of Hawaii Department of Health (DOH) has issued a No Further Action letter or other similar closure document];
(4) Type of database and whether the presence of contamination is known; and
(5) The distance between the listed property and the Site.

Based on this evaluation, TRC limited the review of additional environmental records to the properties listed below because the potential for contamination to be migrating to the Site from the other properties identified by the database search is considered low.

4.2.1.1 Adjoining Properties

Information regarding adjoining properties (those which share a common property boundary with the Site) included in the database search report is summarized in the following table(s):

Facility Name(s) and/or Listed Address(es)	Lodge at Koele, Lanai, HI 96763
EDR Map No(s).	1
Database(s)	State Hazardous Waste Sites (SHWS)
Description/ID No(s)	Facility Registry Identifier: 110013771338
Database Review Summary	This property is listed in the SHWS database related to a diesel spill that occurred in 1998 at the "Sporting Clay Lodge at Koele" facility. The listing indicates that the response was complete, and the property was issued an NFA – Unrestricted Residential Use letter dated 8/18/2005. Based on the current regulatory status, this facility is not a concern to the Site.

Based on the above listing(s), no information regarding an on-going release at the adjoining property was noted. Therefore, no subsequent file review of this property was conducted.

4.3 Other Environmental Record Sources

As part of the assessment, records were requested for the target property from: County of Maui – Department of Environmental Management (DEM) and State of Hawaii Department of Health (DOH) – Solid and Hazardous Waste Branch (SHWB) and Maui County Fire Department. The requests were submitted via written correspondence.

The County of Maui – DEM response indicated that there are no records of hazardous material contamination, underground storage tanks or other environmental issues associated with the Site.

The SHWB response indicated that there are no underground storage tanks records, hazardous waste records or solid waste records associated with the Site.

The Maui County Fire Department Response included information regarding two (2) underground storage tanks (USTs) associated with Parcel number 490020610000; however, further research indicated that these tanks are not located on the Site.

REF-375

5.0 SITE RECONNAISSANCE

5.1 Methodology and Limiting Conditions

Ms. Kacey Swindle, Project Manager, conducted a Site reconnaissance of accessible areas on and around the Site on July 27 and 28, 2019 for the purpose of identifying potential RECs, and was accompanied by Mr. Jimmy Smith of Koele Lanai on July 28, 2019, who provided access to the property and answered questions during the reconnaissance. Photographs taken during the Site reconnaissance are provided in **Appendix E**. A Site layout plan is included as **Figure 2**.

During the Site reconnaissance, portions of the Site were overgrown and TRC was not provided access to the residential structures, all of the construction trailers, or all of the shipping containers used to store construction materials on the Site. These limiting conditions are not expected to impact the results of this Phase I ESA because the overgrown areas appear to be limited to vegetation, the residential structures are used for residential purposes, and the construction trailers and shipping containers are expected to be similar to the ones that were accessed.

5.2 Interior and Exterior Site Observations

Unless otherwise noted, the items listed in the table below appeared in good condition with no visual evidence of staining, deterioration, or a discharge of hazardous materials; and there are no records of a release in these areas. Items where further description is warranted are discussed in the section(s) following the table.

Table 5.1 - Interior and Exterior Site Observations

Item	Present (Current/ Historic/ Not Observed)	Description
Hazardous material storage or handling areas	Current	(see Section 5.2.1)
Solid and liquid wastes including municipal wastes	Current	(see Section 5.2.2)
USTs and associated piping	Not Observed	
ASTs and associated piping	Current	One propane AST was observed right outside one of the residential structures. No staining was observed. Two small ASTs used for water storage for the landscaping contractor were located on the construction laydown portion of the Site.
Drums and containers (≥5 gallons)	Current	Various empty drums were located throughout the Site. Three (3) drums were observed with used rags and water near the paint booth. Reportedly a third party properly disposes of these rags/drums.
Odors	Not Observed	

Table 5.1 - Interior and Exterior Site Observations

Item	Present (Current/ Historic/ Not Observed)	Description
Pools of liquid, including surface water bodies and sumps (handling hazardous substances or substances likely to be hazardous only)	Not Observed	
PCBs/transformers	Current	One transformer was observed on the construction lay down portion of the Site One transformer was observed near the Lana'i Ranch property on the Site. No staining was observed around these transformers
Stains or corrosion	Current	*de minimus* staining (less than one square foot) was observed in the BMK contractor tent in the construction laydown portion of the Site. No evidence of a leaking container or source was identified. A large amount of wood finish (ProLuxe Transparent Satin) staining was observed on the ground next to the paint booth on the construction laydown portion of the Site.
Drains and sumps	Current	Floor drains were observed in the Lana'i Ranch horse stables building.
Pits, ponds, and lagoons	Current	A dirt pit was located on the construction laydown portion of the Site. These pits are areas to collect rain run off.
Stressed vegetation	Not Observed	
Historic fill or other fill material	Not Observed	
Wastewater (including stormwater or discharge into a drain, ditch, underground injection system, or stream on or adjacent to the Site)	Not Observed	
Wells (including dry wells, irrigation wells, injection wells, abandoned wells, or other wells)	Not Observed	
Septic systems or cesspools	Not Observed	

5.2.1 Hazardous Substances

Hazardous substances including raw materials; finished products and formulations; hazardous wastes; hazardous constituents and pollutants including intermediates and byproducts that are currently present at the Site; are listed in the following table.

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Table 5.2 - Current Site Hazardous Substances

Material Name	Approximate Quantity on Site During Reconnaissance (gallons/pounds)	Storage Containers and Conditions*
WD-40	5 containers	Spray-cans in good condition in a flammable cabinet at Lana'i Ranch
Gas	10 gallons	Containers in good condition in a flammable cabinet at Lana'i Ranch
Spray Paint	8 containers	Good condition in a flammable cabinet at Lana'i Ranch
Paint	5 gallons	One gallon and quart containers in good condition in a flammable cabinet at Lana'i Ranch
Oil	5 gallons	One gallon and quart containers in good condition in a flammable cabinet at Lana'i Ranch
Diesel	5 gallons	One container in good condition in the floor of a storage room at Lana'i Ranch
Bleach	1 gallon	One container in good condition in the laundry room of Lana'i Ranch
Retail sized cleaning products	Unknown	Multiple containers in good condition in the laundry room of Lana'i Ranch
Paints and Stains and Finishes	700 gallons	Multiple one gallon and five-gallon containers in fair condition in the construction lay down portion of the Site
Paint Thinner	30 gallons	Five-gallon containers in good condition in the construction lay down portion of the Site
Epoxy	60 gallons	Three-gallon containers in fair condition in the construction lay down portion of the Site
Diesel	10 gallons	Five-gallon containers in good condition in the construction lay down portion of the Site
Propane	2 cannisters	Five-gallon cannisters in good condition in the construction lay down portion of the Site
Acetylene	3 cannisters	Good condition in the construction lay down portion of the Site
Acrylic Texture	125 gallons	Five-gallon containers in good condition in the construction lay down portion of the Site
Weather seal	60 gallons	Five-gallon containers in good condition in the construction lay down portion of the Site
Primer	117 gallons	2.6-gallon containers in good condition in the construction lay down portion of the Site
Eco 185	132 gallons	Four-gallon containers in good condition in the construction lay down portion of the Site
Uzin PE 460	90 gallons	Five-gallon containers in good condition in the construction lay down portion of the Site
Gas	19 containers	Containers in good condition in flammable cabinets in the construction lay down portion of the Site
Masonry Sealer	200 gallons	Five-gallon containers in good condition in the construction lay down portion of the Site
Oil Mix	1 gallon	One-gallon container in good condition in a flammable cabinet in the construction lay down portion of the Site
Wood Finish	25 gallons	Five-gallon containers in good condition in a flammable cabinet in the construction lay down portion of the Site

Table 5.2 - Current Site Hazardous Substances

Material Name	Approximate Quantity on Site During Reconnaissance (gallons/pounds)	Storage Containers and Conditions*
Diesel	5 gallons	Five-gallon container in good condition in a flammable cabinet in the construction lay down portion of the Site
Acetone	2 gallons	One-gallon containers in good condition in a flammable cabinet in the construction lay down portion of the Site
Antifreeze	4 gallons	One-gallon containers in good condition in a flammable cabinet in the construction lay down portion of the Site
Oil	5 gallons	One-gallon and quart containers in good condition in a flammable cabinet in the construction lay down portion of the Site
Wood Floor Adhesive	930 gallons	Five-gallon containers in good condition in the construction lay down portion of the Site
Acrylic Mortar	75 gallons	Five-gallon containers in good condition in the construction lay down portion of the Site
Rg4gs	3 cannisters	Five-gallon containers in good condition in the construction lay down portion of the Site
HT Fluid	5 gallons	Five-gallon container in good condition in the construction lay down portion of the Site
TruValue Flammable Liquid	125 gallons	Five-gallon containers in poor condition in the construction lay down portion of the Site
TruValue Corrosive Liquid	3 gallons	Container in poor condition in the construction lay down portion of the Site

* - Definition of conditions
Compromised: Obvious holes in container or visual evidence of a release.
Poor: Container appears dented, bulging, rusted, or visual evidence of spillage.
Fair: Container appears intact with visual traces of rust.
Good: No visual evidence of container damage.
Excellent: Container appears like new.

5.2.2 Solid and Liquid Wastes

Solid and liquid wastes are generated and stored on the Site. A summary of the observations made during the Site visit regarding solid and liquid waste generation and disposal is provided in the following table.

Table 5.3 - Current Site Solid and Liquid Wastes

Waste Generated	Current Waste Storage /Containers Location	Condition of Storage Area /Secondary Containment	Waste Disposal or Recycling Contractor
Office trash and general construction debris	Outdoor dumpsters	Good – No staining or perforations were observed with the dumpsters.	Maui Disposal
Used rags	Drums near the paint booth	Good – No perforations or staining were observed.	A third-party contractor

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Table 5.3 - Current Site Solid and Liquid Wastes

Waste Generated	Current Waste Storage /Containers Location	Condition of Storage Area /Secondary Containment	Waste Disposal or Recycling Contractor
Waste oil and other chemicals	Various containers	Good – No perforations or staining were observed.	Each contractor on the construction lay down Site utilizes third-party contractors for proper hazardous waste disposal
Sanitary wastewater (Lana'i Ranch)	Sanitary sewer system	Indiscernible due to its underground location.	Sanitary sewer system
Sanitary wastewater (Other Areas of the Site)	Portable toilet facilities	Good – No perforations or staining were observed.	Rainbow Rentals/Paradise Lua

5.3 Adjoining and Surrounding Properties Reconnaissance

5.3.1 Adjoining Properties

During the Site reconnaissance, TRC viewed the adjoining properties from the Site and publicly accessible areas (e.g., public roadways, etc.).

Table 5.4 - Adjoining Properties Reconnaissance

Direction from Site	Current Land Use Description
North	Undeveloped agricultural land
East	Lodge at Koele Resort Property
South	Keomoku Road followed by golf course.
West	Undeveloped agricultural land

5.3.2 Surrounding Properties

Surrounding properties generally include undeveloped to the north and west, golf course to the east and residential to the south.

6.0 INTERVIEWS

The following persons were interviewed to obtain historically and/or environmentally pertinent information regarding RECs associated with the Site.

- Mr. Vann Allan, Director of Development and Construction of Pulama Lana'i with six (6) years of experience at the Site – *Key Site Manager* (as defined by the ASTM standard and identified by the property owner).

The information provided by each is discussed and referenced in the text or provided below. Other references and sources of information are included in **Appendix F**.

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7.0 FINDINGS, OPINIONS, AND CONCLUSIONS

Potential findings can include RECs, including CREC), HRECs, and *de minimis* conditions, pursuant to the ASTM E 1527-13 standard.

RECs are defined as the presence or likely presence of any *hazardous substances* or *petroleum products* in, on, or at a *property*: (1) due to any *release* to the environment; (2) under conditions indicative of a *release* to the *environment*; or (3) under conditions that pose a *material threat* of a future *release* to the *environment*.

CRECs are defined as RECs resulting from past *releases* of *hazardous substances* or *petroleum products* that have been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with *hazardous substances* or *petroleum products* allowed to remain in place subject to the implementation of required controls (e.g., *property* use restrictions, *AULs, institutional controls*, or *engineering controls*).

HRECs are defined as past *releases* of any *hazardous substances* or *petroleum products* that have occurred in connection with the *property* and have been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the *property* to any required controls (for example, *property* use restrictions, *AULs, institutional controls*, or *engineering controls*).

De minimis conditions are defined as conditions that generally do not present a threat to human health or the *environment* and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis conditions* are not RECs nor CRECs.

TRC has performed a Phase I ESA in conformance with the scope and limitations of ASTM E 1527-13 at the Lodge at Koele Expansion project area totaling approximately 75.2 acres. The property is situated to the north and west of the Lodge at Koele Resort property located at 1 Keomoku Highway in Lana'i City, Hawaii (Site), see **Appendices G** and **H**. Deviations from this standard are described in Sections 1.3 and 7.6 of this report.

7.1 Findings and Opinions

The following conditions were noted during the preparation of this report. TRC has provided the Environmental Professional's rationale for concluding that a condition is or is not currently a REC.

Finding No. 1

During Site reconnaissance a large area of staining was observed on the ground around the painting booth. Site personnel indicated that the staining was a result of overspray from wood staining activities using PPG ProLuxe 1 Primary Coat RE Wood Finish Transparent Satin. A copy of the SDS for this product is included in **Appendix F**. This would constitute a REC, as this is a petroleum-based product that has been released to the environment.

Finding No. 2

The previous use of portions of the Site as part of pineapple plantation activities indicates possible use of pesticides and other chemicals. Although not considered a REC, disturbance of soils could lead to potential exposures to potential pesticides and other chemicals and should be considered during the redevelopment process.

Finding No. 3

An AST containing propane was observed near one of the residential structures. The AST is located on the exterior of the residence. No releases have been reported from the AST and no staining was noted at the time of inspection. As no releases to the environment are known or suspected, this is not considered to be a REC.

7.2 RECs and CRECs

This assessment has revealed the following RECs (including CRECs) in connection with the Site:

REC No. 1

During Site reconnaissance a large area of staining was observed on the ground around the painting booth. Site personnel indicated that the staining was a result of overspray from wood staining activities using PPG ProLuxe 1 Primary Coat RE Wood Finish Transparent Satin. This would constitute a REC, as this is a petroleum-based product that has been released to the environment.

7.3 HRECs

This assessment has revealed no evidence of HRECs in connection with the Site.

7.4 *De Minimis* Conditions

This assessment has revealed the following *de minimis* conditions in connection with the Site:

- Less than one square foot of staining was observed on the ground in the BMK tent in the construction laydown portion of the Site. No evidence of a leaking container or source was identified. Due to the very limited nature, this would be considered *de minimus*.

7.5 Data Gaps

TRC has made an appropriate inquiry into the commonly known and reasonably ascertainable resources concerning the historic ownership and use of the Site back to the first development per 40 CFR Part 312.24 (*Reviews of Historical Sources of Information*). Data gaps identified during this assessment include the following:

1. Failure to obtain specific information or files on the past ownership of the Site.
2. Portions of the Site were overgrown and TRC was not provided access to the residential structures, all of the construction trailers, or all of the shipping containers used to store construction materials on the Site.

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3. The Site was used for agricultural purposes prior to 1991, during which herbicides and pesticides may have been used. No structures were identified on the Site during this time through the review of historical sources and interviews with the Site contacts and prior owners. Given that no storage structures or spills were historically identified on the Site related to herbicides and pesticides, TRC presumes that the amount of these substances administered on the Site would have been at "application" concentrations, if any. Additional information that varies significantly from the sources provided to TRC may affect the conclusions of this assessment.

Based on other historical sources reviewed, Data Gap Nos. 1-3 are not considered *significant*.

7.6 Limiting Conditions and Deviations

7.6.1 Accuracy and Completeness

The ASTM E 1527-13 standard recognizes inherent limitations for Phase I ESAs that apply to this report, including:

- Uncertainty Not Eliminated – No Phase I ESA can wholly eliminate uncertainty regarding the potential for RECs in connection with a property. Data gaps identified during this Phase I ESA are listed in Section 7.4.
- Not Exhaustive – A Phase I ESA is not an exhaustive investigation.
- Past Uses of the Property – A review of standard historical sources at intervals less than 5 years is not required.

The Client is advised that the Phase I ESA conducted at the Site is a limited inquiry into a property's environmental status, cannot wholly eliminate uncertainty, and is not an exhaustive assessment to discover every potential source of environmental liability at the Site. Therefore, TRC does not make a statement i) of warranty or guarantee, express or implied for any specific use; ii) that the Site is free of RECs or environmental impairment; iii) that the Site is "clean;" or iv) that impairments, if any, are limited to those that were discovered while TRC was performing the Phase I ESA. This limiting statement is not meant to compromise the findings of this report; rather, it is meant as a statement of limitations within the ASTM standard and intended scope of this assessment. Specific limiting conditions identified during the Site reconnaissance are described in Section 5.1. Subsurface conditions may differ from the conditions implied by surface observations and can be evaluated more thoroughly through intrusive techniques that are beyond the scope of this assessment. Information in this report is not intended to be used as a construction document and should not be used for demolition, renovation, or other construction purposes.

This report presents TRC's Site reconnaissance observations, findings, and conclusions as they existed at the time of the Site reconnaissance. TRC makes no representation or warranty that the past or current operations at the property are or have been in compliance with applicable federal, state, and local laws, regulations, and codes. TRC makes no guarantees as to the accuracy or completeness of information obtained from others during the course of this Phase I ESA report. It is possible that information exists beyond the scope of this assessment, or that information was not provided to TRC. Additional information subsequently provided, discovered, or produced may alter findings or conclusions made in this Phase I ESA report. TRC is under no obligation to update

this report to reflect such subsequent information. The findings presented in this report are based upon reasonably ascertainable information and observed Site conditions at the time of the assessment.

This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not assessed. Regardless of the findings stated in this report, TRC is not responsible for consequences or conditions arising from facts that were not fully disclosed to TRC during the assessment.

An independent data research company provided the government agency database referenced in this report. Information regarding surrounding area properties was requested for approximate minimum search distances and was assumed to be correct and complete unless obviously contradicted by TRC's observations or other credible referenced sources reviewed during the assessment.

TRC is not a professional title insurance or land surveyor firm and makes no guarantee, explicit or implied, that any land title records acquired or reviewed, or any physical descriptions or depictions of the property in this report, represent a comprehensive definition or precise delineation of property ownership or boundaries.

7.6.2 Warranties and Representations

This report does not warrant against: (1) operations or conditions which were not evident from visual observations or historical information provided; (2) conditions which could only be determined by physical sampling or other intrusive investigation techniques; (3) locations other than the client-provided addresses and/or legal parcel description; or (4) information regarding off-Site location(s) (with possible impact to the Site) not published in publicly available records.

7.6.3 Continued Validity/User Reliance

This report is presumed to be valid, in accordance with, and subject to, the limitations specified in the ASTM E 1527-13 standard, for a period of 180 days from completion, or until the Client obtains specific information that may materially alter a finding, opinion, or conclusion in this report, or until the Client is notified by TRC that it has obtained specific information that may materially alter a finding, opinion, or conclusion in this report. Additionally, pursuant to the ASTM E 1527-13 standard, this report is presumed valid if completed less than 180 days prior to the date of acquisition of the property or (for transactions not involving an acquisition) the date of the intended transaction.

7.6.4 Significant Assumptions

During this Phase I ESA, TRC relied on database information; interviews with Site representatives, regulatory officials, and other individuals having knowledge of Site operations; and information provided by the User as requested in our authorized Scope of Work. TRC has assumed that the information provided is true and accurate. Reliance on electronic database search reports is subject to the limitations set forth in those reports. TRC did not independently verify the information provided. TRC found no reason to question the validity of the information received unless explicitly noted elsewhere in this report. If other information is discovered and/or if previous reports exist that were not provided to TRC, our conclusions may not be valid.

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8.0 REFERENCES

Table 8.1 - Reference Information

Description/Title of Document(s) Received or Agency Contacted	Date Information Request Filled/Date of Agency Contact	Information Updated	Reference Source
Regulatory database search and historical sources discussed herein	July 12, 2019	N/A	GeoSearch Inquiry Number: 304417
Submitted written request to State Hawaii Department of Health – Solid and Hazardous Waste Branch	July 15, 2019	July 29, 2019	http://health.hawaii.gov
Submitted written request to Maui County Fire Department	July 15, 2019	July 17, 2019	http://www.co.maui.hi.us
Submitted written request to County of Maui, Department of Environmental Management	July 15, 2019	July 17, 2019	http://www.honoluludpp.org/Planning/
Maui County Tax Assessor	July 11, 2019	N/A	http://www.honoluluproperty tax.com/
Interview with Vann Allan	October 22, 2019	N/A	Personal Interview

9.0 NON-SCOPE ITEMS

No ASTM E1527-13 non-scope services were performed as part of this Phase I ESA.

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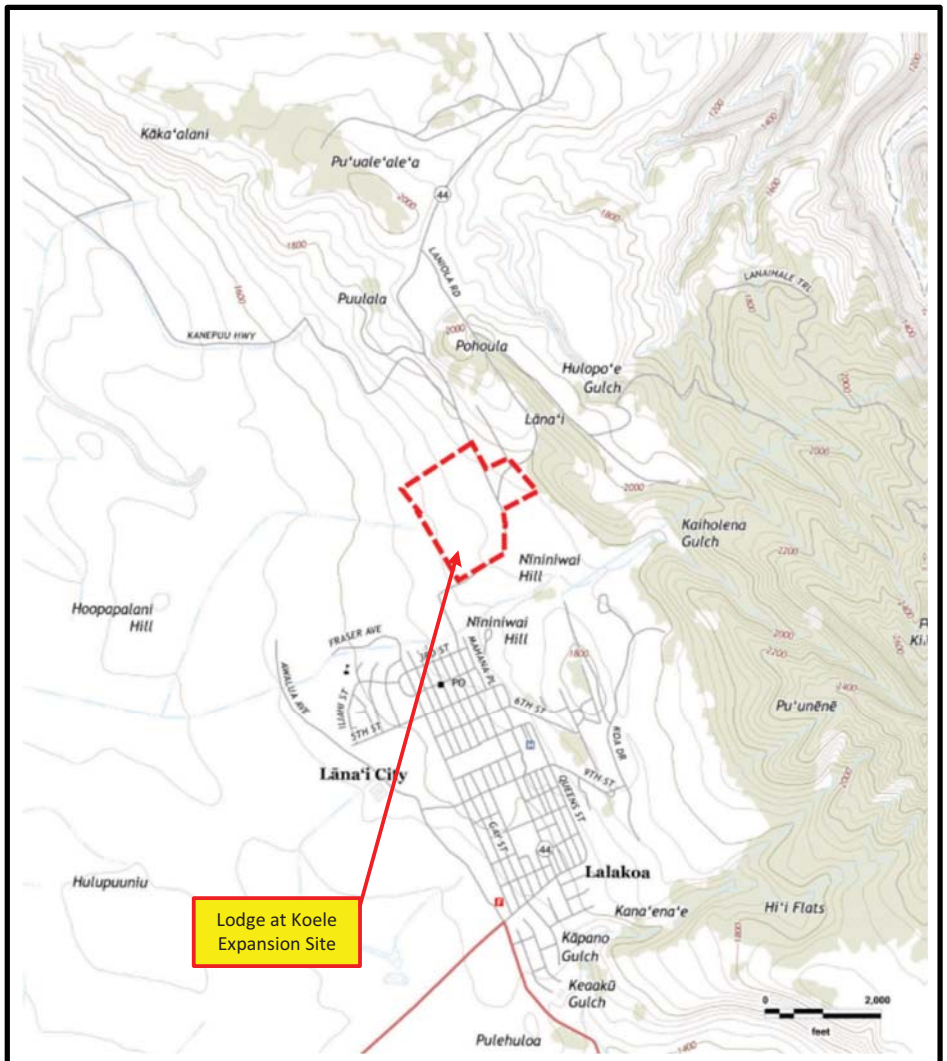
TRC

FIGURES



TRC
1600 Kapiolani Boulevard, Suite 717
Honolulu, Hawaii 96814

ENVIRONMENTAL SITE ASSESSMENT
SITE VICINITY MAP

Lodge at Koele Expansion
Lana'i City, Hawaii

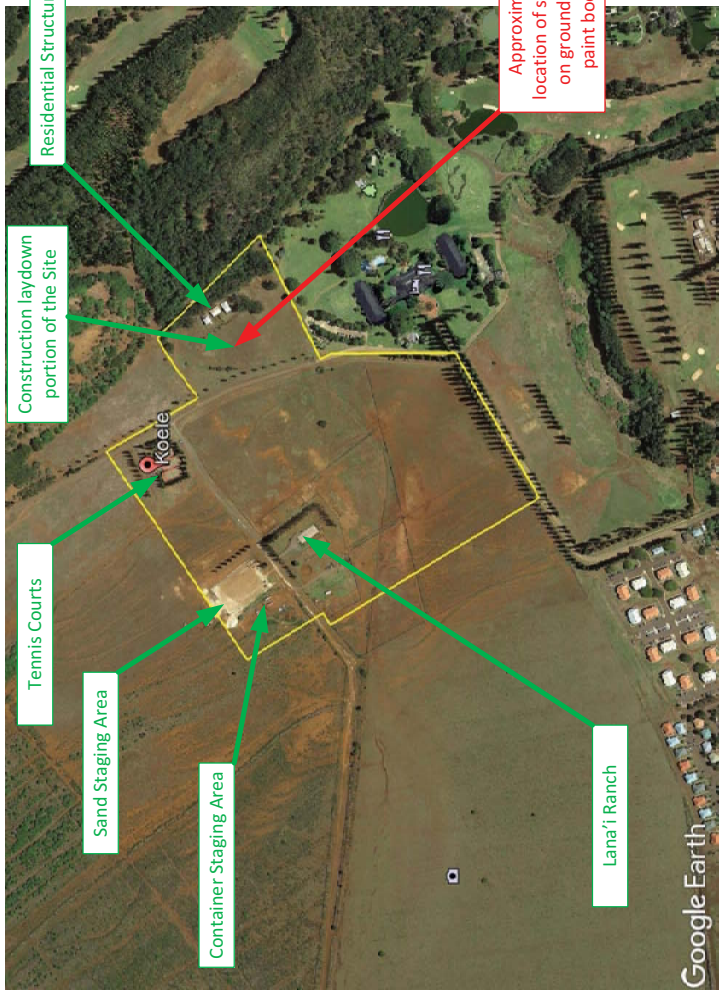
TRC Project No.: 352477 | Figure: 1

NOTES

N

Source: USGS Topo,
Lanai North OE W, HI (2013)
Lanai South OE W, HI (2013)

REF-382



LEGEND

Approximate Property Boundary

Source: Google Earth

N

ENVIRONMENTAL SITE ASSESSMENT
SITE PLAN

Lodge at Koele Expansion
Lana'i City, Hawaii

TRC Project No.: 352477

Figure: 2

TRC

1600 Kapiolani Boulevard, Suite 717
Honolulu, Hawaii 96814

TRC

Appendix A:
GeoPlus Physical Setting Maps

REF-383

GeoSearch
On time. On target. In touch.™

GeoPlus Physical Setting Maps

Satellite view

Target Property:

Lodge at Koele Expansion
Keomuku Rd
Lanai City, Maui County, Hawaii 96763

Prepared For:

TRC-Portland

Order #: 130053
Job #: 305877
Project #: 352477
Date: 07/23/2019

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REF-384

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Target Property Summary

Target Property Information

Lodge at Koele Expansion
Keomuku Rd
Lanai City, Hawaii 96763

Coordinates
Area centroid (-156.92030, 20.8372852)
1,720 feet above sea level

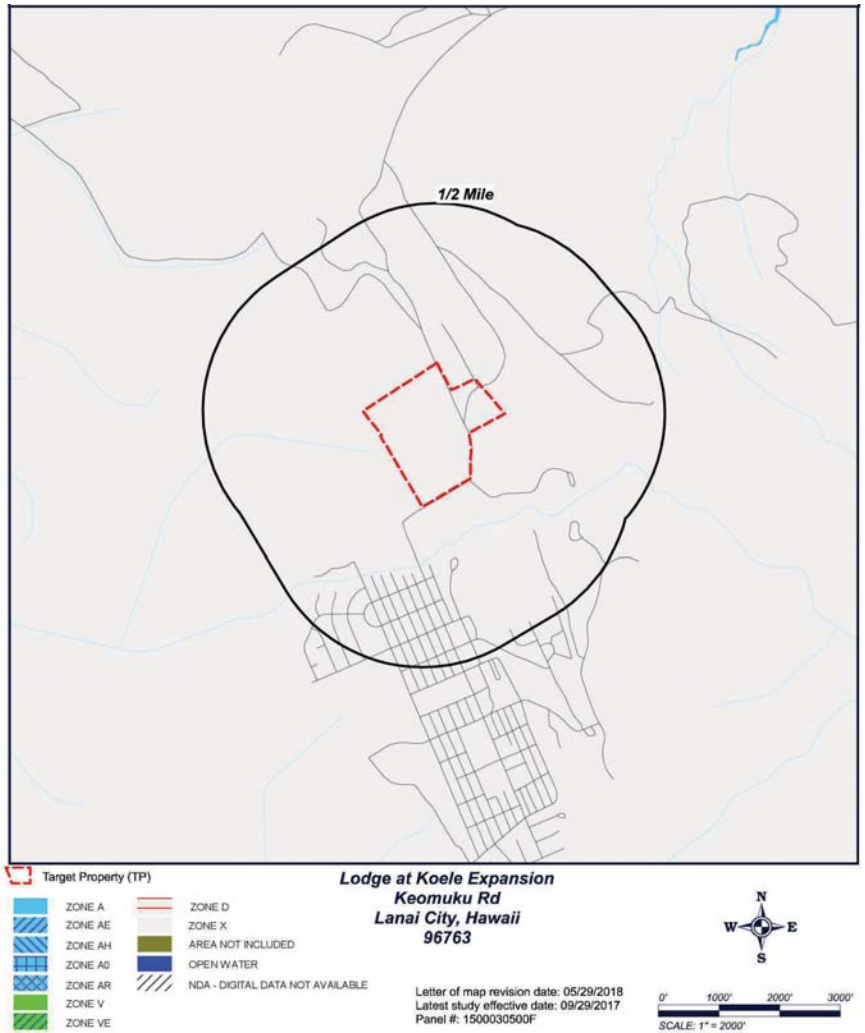
USGS Quadrangle
Island Of Lanai Oe Nw, HI

Geographic Coverage Information

County/Parish: Maui (HI)
ZipCode(s):
Lanai City HI: 96763

REF-385

FEMA Map



Click here to access Satellite view

FEMA Report

FEMA - Federal Emergency Management Agency

The National Flood Hazard Layer (NFHL) data used in this report is derived from the Federal Emergency Management Agency. The NFHL dataset is a compilation of effective Flood Insurance Rate Map (FIRM) databases (a collection of the digital data that are used in GIS systems for creating new Flood Insurance Rate Maps) and Letters of Map Change (Letters of Map Amendment and Letters of Map Revision only) that create a seamless GIS data layer for United States and its territories. The NFHL is updated as new study or LOMC data becomes effective. Note: Currently, not all areas have modernized FIRM database data available. As a result, users may need to refer to the effective Flood Insurance Rate Map for effective flood hazard information.

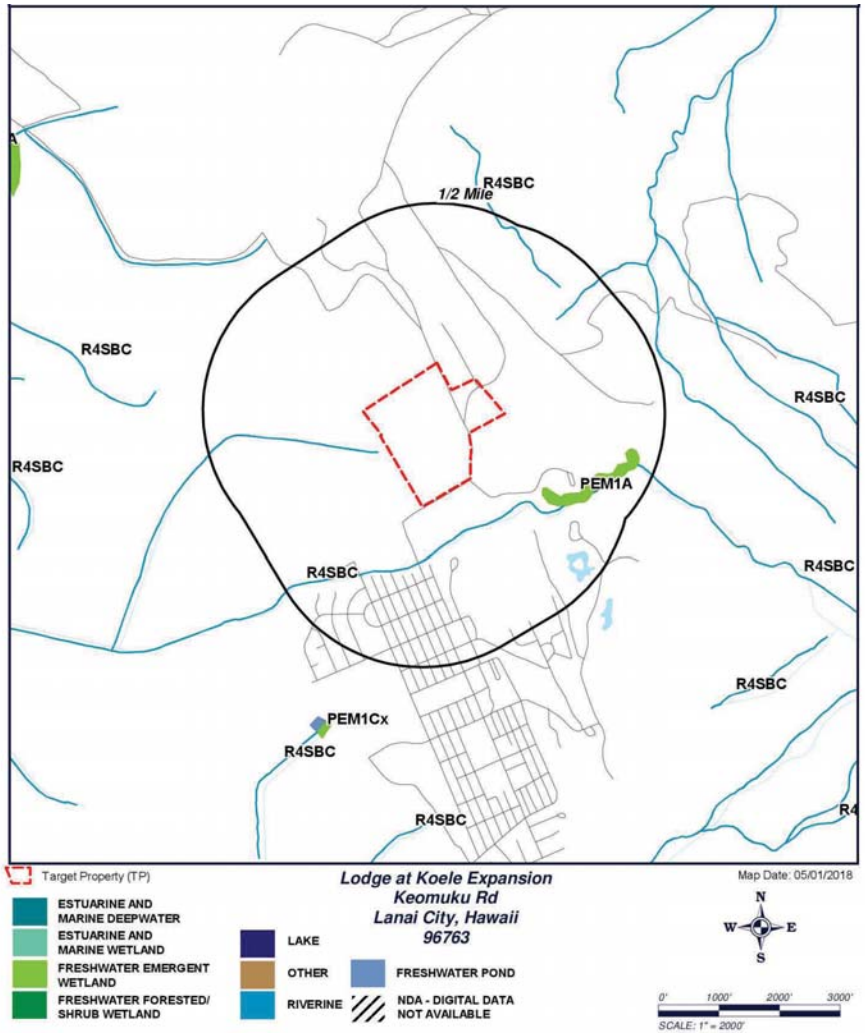
FEMA Flood Zone Definitions within Search Radius

X	Zone X

An area that is determined to be outside the 100 and 500 year floodplains.

REF-386

NWI Map



Click here to access Satellite view

NWI Report

NWI - National Wetlands Inventory

The US NWI digital data bundle is a set of records of wetlands location and classification as defined by the U.S. Fish & Wildlife Service. This dataset is one of a series available in 7.5 minute by 7.5 minute blocks containing ground planimetric coordinates of wetlands point, line, and area features and wetlands attributes. When completed, the series will provide coverage for all of the contiguous United States, Hawaii, Alaska, and U.S. protectorates in the Pacific and Caribbean. The digital data as well as the hardcopy maps that were used as the source for the digital data are produced and distributed by the U.S. Fish & Wildlife Service's National Wetlands Inventory project. Currently, this data is only available in select counties throughout the United States.

NWI Definitions within Search Radius

PEM1A

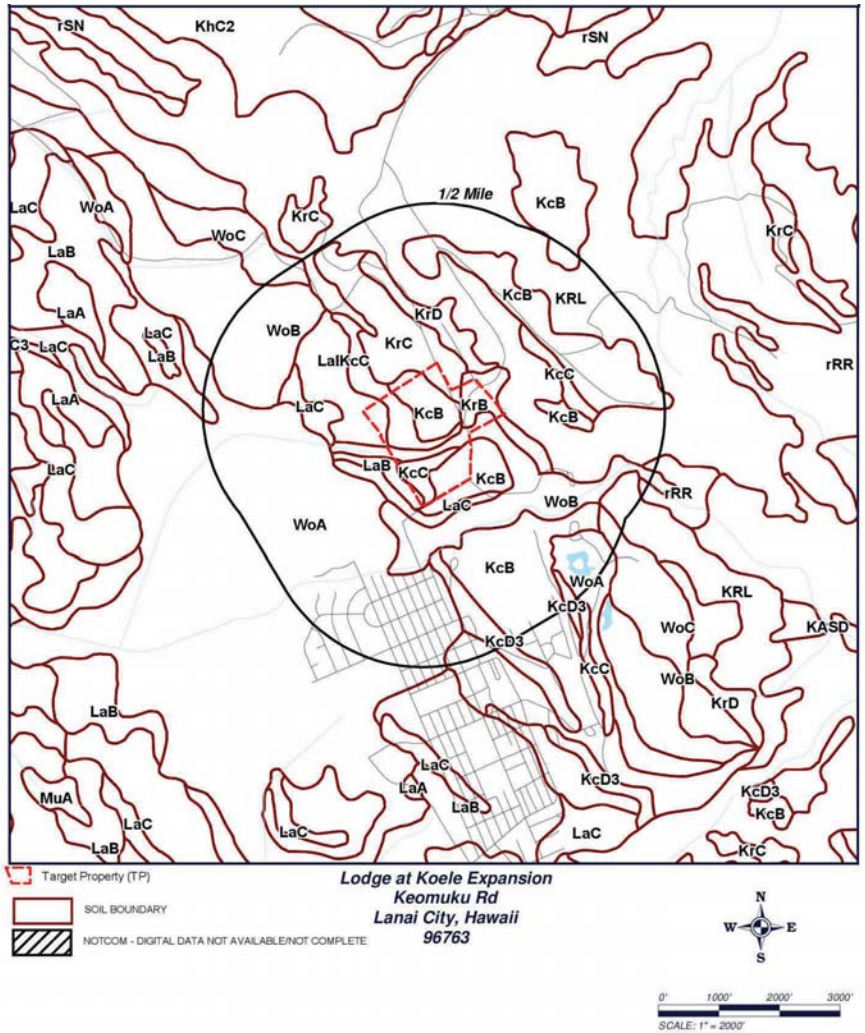
SYSTEM: **PALUSTRINE**
CLASS: **EMERGENT**
SUBCLASS: **BROAD-LEAVED DECIDUOUS**
WATER REGIME: **TEMPORARILY FLOODED**

R4SBC

SYSTEM: **RIVERINE**
SUBSYSTEM: **INTERMITTENT**
CLASS: **STREAMBED**
WATER REGIME: **SEASONALLY FLOODED**

REF-387

Soil Map



Click here to access Satellite view

SOIL Report

Soil Surveys

The soil data used in this report is obtained from the Natural Resources Conservation Service (NRCS). The NRCS is the primary federal agency that works with private landowners to help them conserve, maintain and improve their natural resources. The soil survey contains information that can be applied in managing farms and ranches; in selecting sites for roads, ponds, buildings and other structures; and in determining the suitability of tracts of land for farming, industry and recreation. This data is available in select counties throughout the United States.

SOIL Code Definitions within Search Radius

KRL	Koele-Badland complex, MLRA 166
KcB	Kalae silty clay, 2 to 7 percent slopes, MLRA 165
KcC	Kalae silty clay, 7 to 15 percent slopes
KcD3	Kalae silty clay, 15 to 25 percent slopes, severely eroded, MLRA 165
KrB	Koele silty clay loam, 3 to 7 percent slopes
KrC	Koele silty clay loam, 7 to 15 percent slopes
KrD	Koele silty clay loam, 15 to 25 percent slopes
LaB	Lahaina silty clay, 3 to 7 percent slopes, MLRA 158
LaC	Lahaina silty clay, 7 to 15 percent slopes, MLRA 158
WoA	Waihuna clay, 0 to 3 percent slopes
WoB	Waihuna clay, 3 to 7 percent slopes
WoC	Waihuna clay, 7 to 15 percent slopes
rRR	Rough broken land

REF-388

TRC

Appendix B:
User Questionnaire

ASTM E-1527 PHASE I ENVIRONMENTAL SITE ASSESSMENT
PRE-SURVEY QUESTIONNAIRE AND DISCLOSURE STATEMENT

Borrower: Please complete this questionnaire before the Consultant's site visit. For those questions that are not applicable to the subject please respond with an "N/A". This document must be signed by the Owner or his/her representative (Item No. 2). If you have any questions about how to answer any of the questions please call. If additional pages for response are necessary please attach them to this form. Clearly mark all references to the appropriate question number(s). This document and your written response to same will be an exhibit in our report.

1. PROPERTY INFORMATION:

Property Name: **Koele Project District , Hotel Expansion and added Resort Commercial.**		
Property Address: **1 Keomoku Highway**		
City: **Lanai City**	State: **Hawaii**	Zip: **96773**
Assessor's Parcel Number: **49002001000, 49002061000**		

2. COMPLETED BY

Signature	Date: 10-21-19
Printed Name: Thomas A Hoen	Title: Consultant

3. ASTM-REQUIRED INQUIRIES

Property Owner: Name: **Lanai Resorts**	Phone: **808-565-3000**	Fax:
Key Site Manager (Site contact): Name: **Vann Allan**	Phone: **808-436-6437**	Fax:
If not residential Property, please provide list of tenants, including contact names and phone numbers.		
Can you provide a Current Title Abstract for the Property, including a chain of Title? If so, please send documents along with completed questionnaire.		☐ Yes ☒ No
Do you have knowledge of any environmental liens recorded against the Property, or environmentally related Activity and Use Limitations of the Property?		☐ Yes ☒ No
Do you have any specialized knowledge that would be material in identifying recognized environmental conditions in connection with the Property?		☐ Yes ☒ No
Are you aware of a reduction in the property value due to environmental issues?		☐ Yes ☒ No
Please attach explanation of all affirmative answers.		

REF-389

Please state reason for procuring this Phase 1 ESA:

☐ Qualify for Innocent Landowner defense to CERCLA Liability.

XX Other: (state below)

Zoning Change - County

4. PLEASE PROVIDE A GENERAL SITE DESCRIPTION BY COMPLETING THE FOLLOWING TABLE:

Legal description/ boundary survey/ plat available for inspector **49002001000,49002061000**	☐ Yes ☐ No
Total Property Size **18 acre Hotel Expansion and 57.2 acre Resort Commercial**	
Total number of buildings **Stable Building and Accessory Storage Buildings**	
Total square footage of buildings	
Date of construction	
Dates of significant renovation	
Waste water discharge ☐ Municipal Sanitary Sewer ☐ On-site septic system ☐ Other	
Potable water source ☐ Community Water Supplier ☐ On-site well ☐ Other	
Please describe prior use of property, if known:	

5. PREVIOUS INVESTIGATIONS:

Have any previous environmental investigations been performed at the site?

☐ Yes ☐ No

INVESTIGATION TYPE **If yes, please describe conclusions, and attach copy of report(s)**	
☐ Phase 1 ESA	
☐ Phase 2 ESA	
☐ Tank Tightness Testing	
☐ Asbestos Survey/ O&M	
☐ Radon	
☐ Lead-based Paint	
☐ Lead in Water	

Proposal for Professional Consulting Services at:
Lodge at Koele Expansion, Lanai City, Hawaii
April 3, 2019

☐ Operations & Maintenance Plan(s)	
☐ Other	

6. ON SITE OPERATIONS

Are you aware of any of the following conditions, either past or present, on the site?

Condition	Response	If yes, please describe
1. Stored Chemicals	☑ Yes ☐ No	Construction Materials
2. Underground Storage Tanks	☐ Yes ☒ No	
3. Aboveground Storage Tanks	☐ Yes ☒ No	
4. Spills or Releases	☐ Yes ☒ No	
5. Dump Areas/ Landfills	☐ Yes ☒ No	
6. Waste Treatment Systems	☐ Yes ☒ No	
7. Clarifies/ Separators	☐ Yes ☒ No	
8. Air stacks/ Vents/ Odors	☐ Yes ☒ No	
9. Floor Drains/Sumps	☐ Yes ☒ No	
10. Stained Soil/ Impacted Vegetation	☒ Yes ☐ No	Paint Booth Overspray
11. On-site OWNED Electrical Transformers	☐ Yes ☒ No	
12. Hydraulic lifts/ Elevators	☐ Yes ☒ No	
13. Dry Cleaning Operations	☐ Yes ☒ No	
14. Wetlands/ Flooding	☐ Yes ☒ No	
15. Oil/ Gas/ Water/ Monitoring Wells	☐ Yes ☒ No	
16. Environmental Cleanups	☐ Yes ☒ No	
17. Environmental Permits	☐ Yes ☒ No	If **yes**, please describe and ATTACH ALL COPIES of permits. Please attach last three waste manifests.
a) Industrial Discharge	☐ Yes ☒ No	
b) POTW (NPDES)	☐ Yes ☒ No	
c) Hazardous Waste Generator	☐ Yes ☒ No	
d) Air Quality	☐ Yes ☒ No	
e) Flammable Materials	☐ Yes ☒ No	
f) AST/UST	☐ Yes ☒ No	
g) Waste Manifest(s)	☐ Yes ☒ No	
h) other	☐ Yes ☒ No	

REF-390

TRC

Appendix C:
Historical Research Documentation

GeoSearch
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Historical Aerial Photographs

NEW: GeoLens by Geosearch

Target Property:

Lodge at Koele Expansion
Keomuku Rd
Lanai City, Maui, Hawaii 96763

Prepared For:

TRC-Portland

Order #: 130053
Job #: 305873
Project #: 352477
Date: 7/26/2019

REF-391

Target Property Summary

Lodge at Koele Expansion
Keomuku Rd
Lanai City, Maui, Hawaii 96763

USGS Quadrangle: ISLAND OF LANAI OE NW
Target Property Geometry: Area

Target Property Longitude(s)/Latitude(s):
(-156.920113419, 20.840338946), (-156.923675393, 20.838153064), (-156.922774170, 20.837070139), (-156.922849272, 20.837040057), (-156.920800064, 20.833821315), (-156.918482636, 20.835104810), (-156.918482636, 20.835816743), (-156.918439721, 20.836518646), (-156.918568467, 20.837170410), (-156.916830395, 20.838032740), (-156.918268059, 20.839617007), (-156.919405316, 20.839115658)

Aerial Research Summary

Date	Source	Scale	Frame
09/21/1992	NASA	1" = 500'	4473-223
12/25/1976	USGS	1" = 500'	4-5
01/20/1965	USGS	1" = 500'	1-25
01/26/1952	USGS	1" = 500'	1-4

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N
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Lodge at Koele Expansion
NASA
09/21/1992

GeoSearch

JOB #: 305873 - 07/26/2019

N
W E
S

Lodge at Koele Expansion
USGS
12/25/1976

GeoSearch

JOB #: 305873 - 07/26/2019

REF-393

N W E S

Lodge at Koele Expansion
USGS
01/20/1965

GeoSearch

JOB #: 305873 - 07/26/2019

N W E S

Lodge at Koele Expansion
USGS
01/26/1952

GeoSearch

JOB #: 305873 - 07/26/2019

REF-394

GeoSearch
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Historical Topographic Maps

NEW: GeoLens by Geosearch

Target Property:

Lodge at Koele Expansion
Keomuku Rd
Lanai City, Maui, Hawaii 96763

Prepared For:

TRC-Portland

Order #: 130053
Job #: 305872
Project #: 352477
Date: 7/24/2019

Target Property Summary

Lodge at Koele Expansion
Keomuku Rd
Lanai City, Maui, Hawaii 96763

USGS Quadrangle: ISLAND OF LANAI OE NW
Target Property Geometry: Area

Target Property Longitude(s)/Latitude(s):
(-156.920113419, 20.840338946), (-156.923675393, 20.838153064), (-156.922774170, 20.837070139), (-156.922849272, 20.837040057), (-156.920800064, 20.833821315), (-156.918482636, 20.835104810), (-156.918482636, 20.835816743), (-156.918439721, 20.836518646), (-156.918568467, 20.837170410), (-156.916830395, 20.838032740), (-156.918268059, 20.839617007), (-156.919405316, 20.839115658)

REF-395

Topographic Map Summary

Date	Quadrangle	Scale
2013	Lanai North OE W, HI (2013)	1" = 2000'
	Lanai North, HI (2013)	
	Lanai South OE W, HI (2013)	
	Lanai South, HI (2013)	
1992	Garden Of The Gods, HI (1991)	1" = 2000'
	Makalau, HI (1991)	
	Lanai City, HI (1992)	
	Haalelepaakai, HI (1992)	
1984	Lanai North, HI (1984)	1" = 2083'
	Lanai South, HI (1984)	
1925	Island of Lanai, HI	1" = 5208'
1923	Island of Lanai, HI	1" = 5208'

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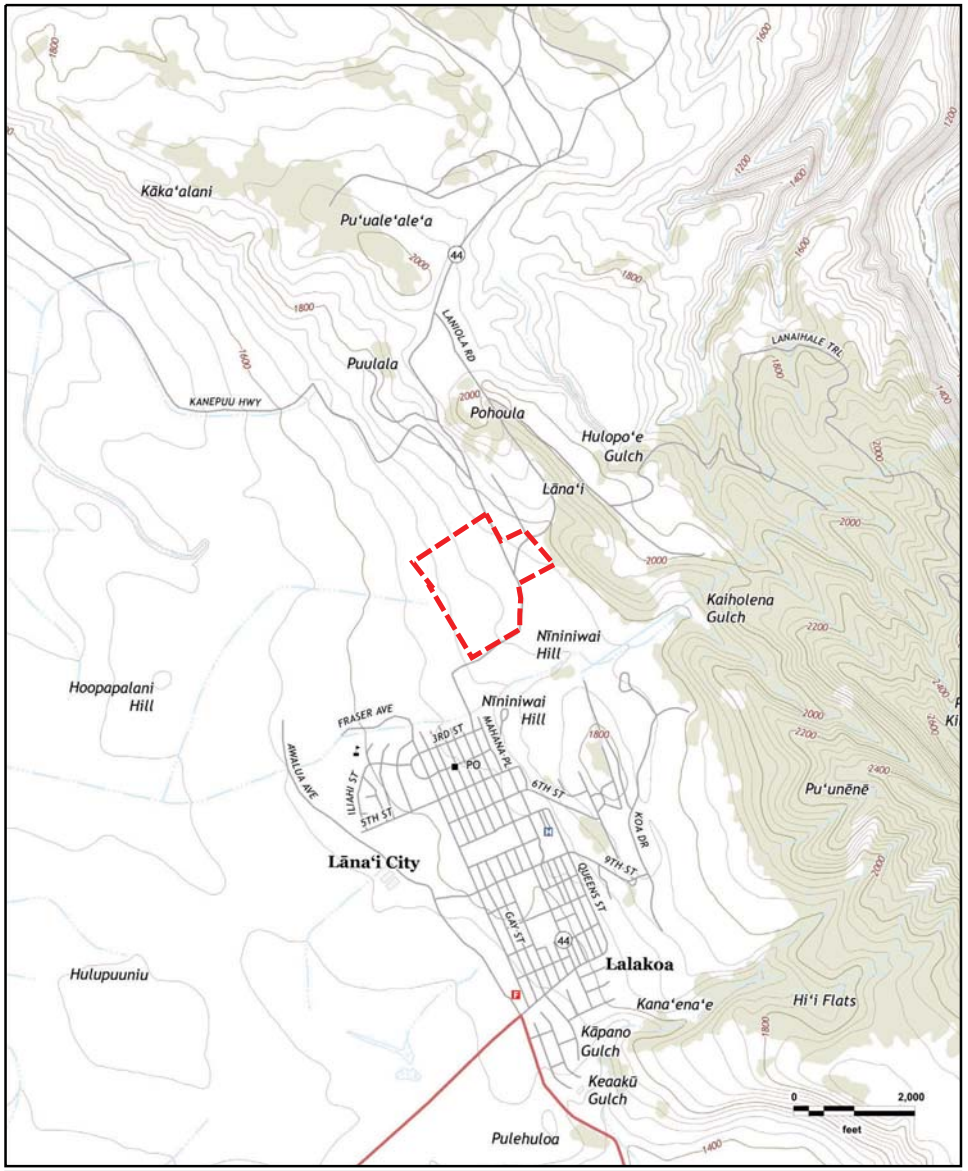
GeoSearch www.geo-search.com 888-396-0042

Order# 130053 Job# 305872



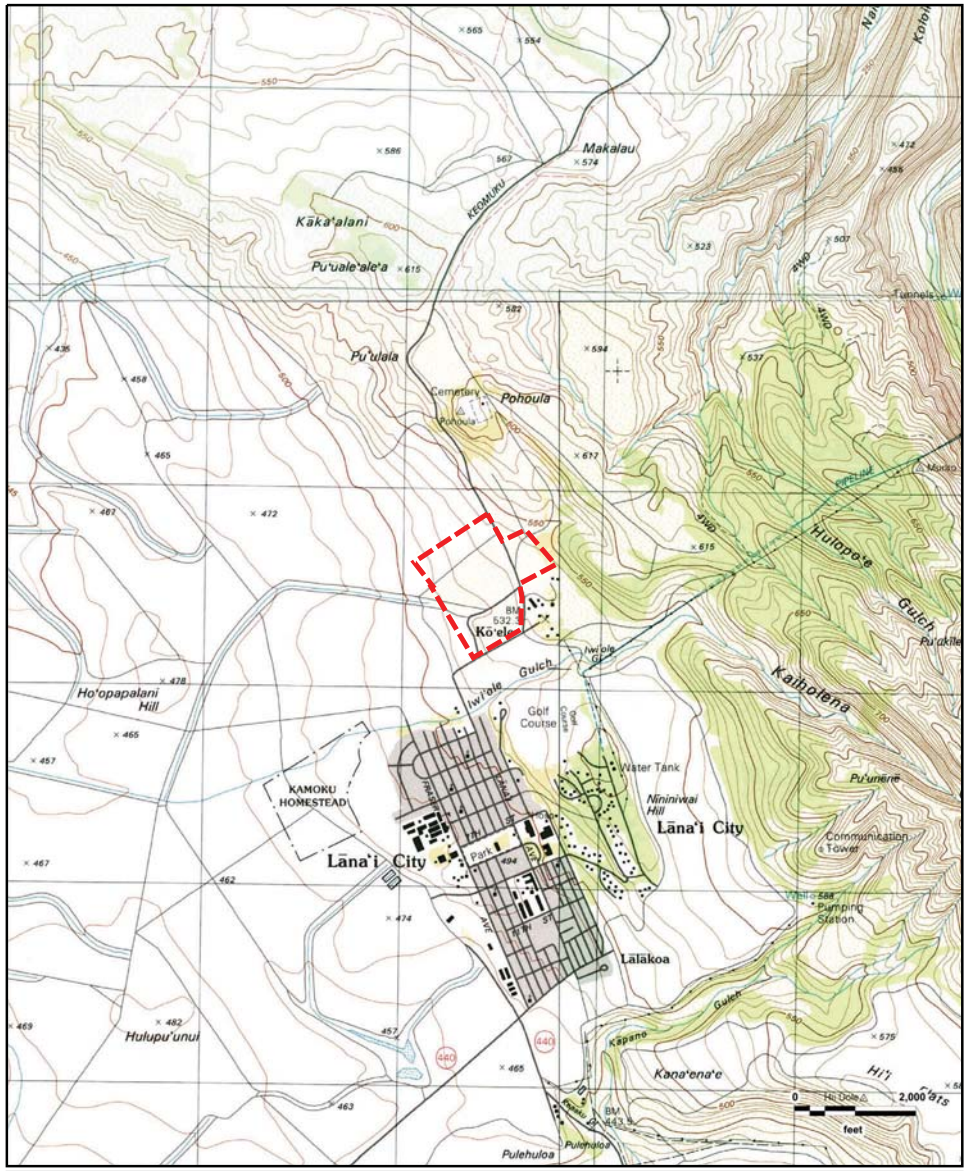
N W E S

Lodge at Koele Expansion
Lanai North OE W, HI (2013); Lanai North, HI (2013)
Lanai South OE W, HI (2013); Lanai South, HI (2013)

GeoSearch

JOB #: 305872 - 07/24/2019

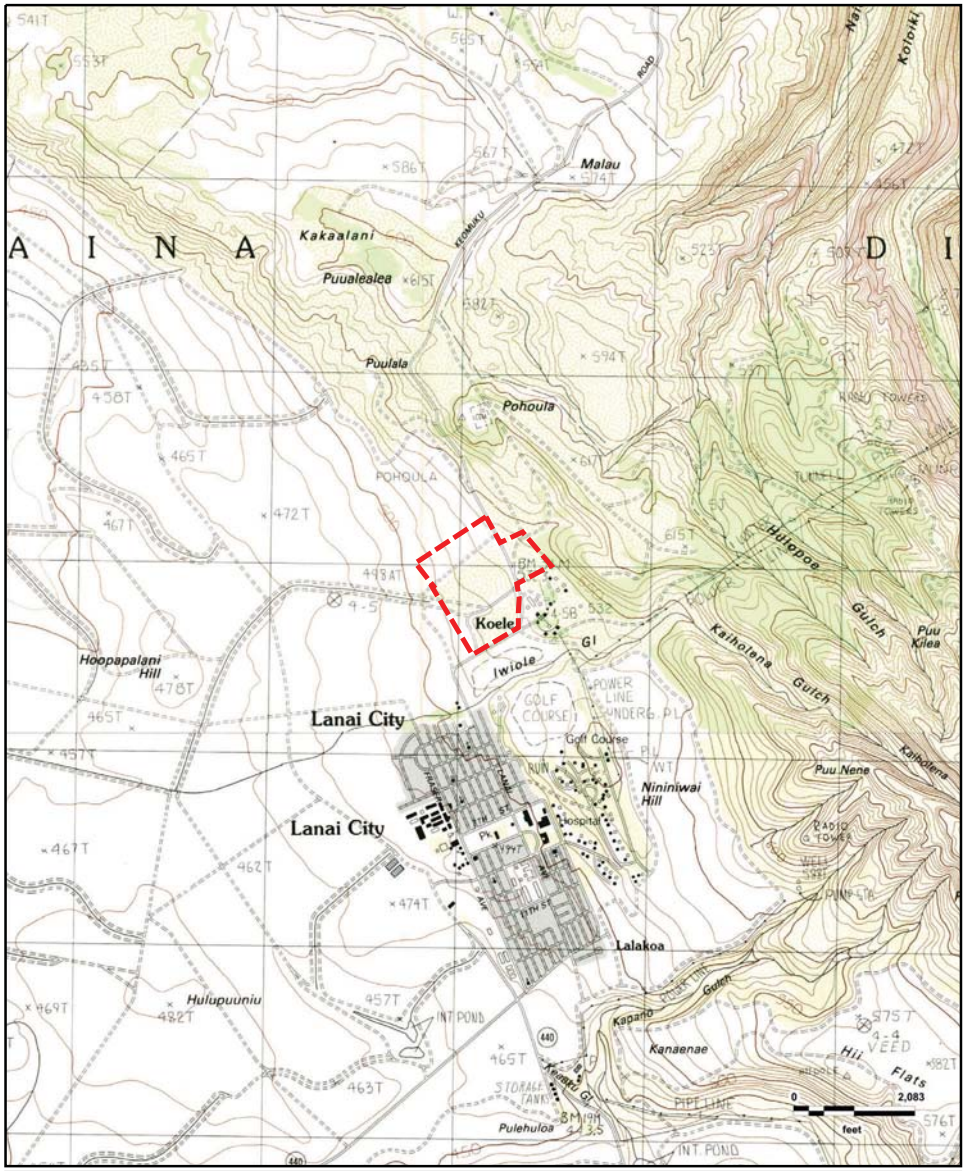
REF-396



Lodge at Koele Expansion
Garden Of The Gods, HI (1991); Makalau, HI (1991)
Lanai City, HI (1992); Haalelepaakai, HI (1992)

GeoSearch

JOB #: 305872 - 07/24/2019

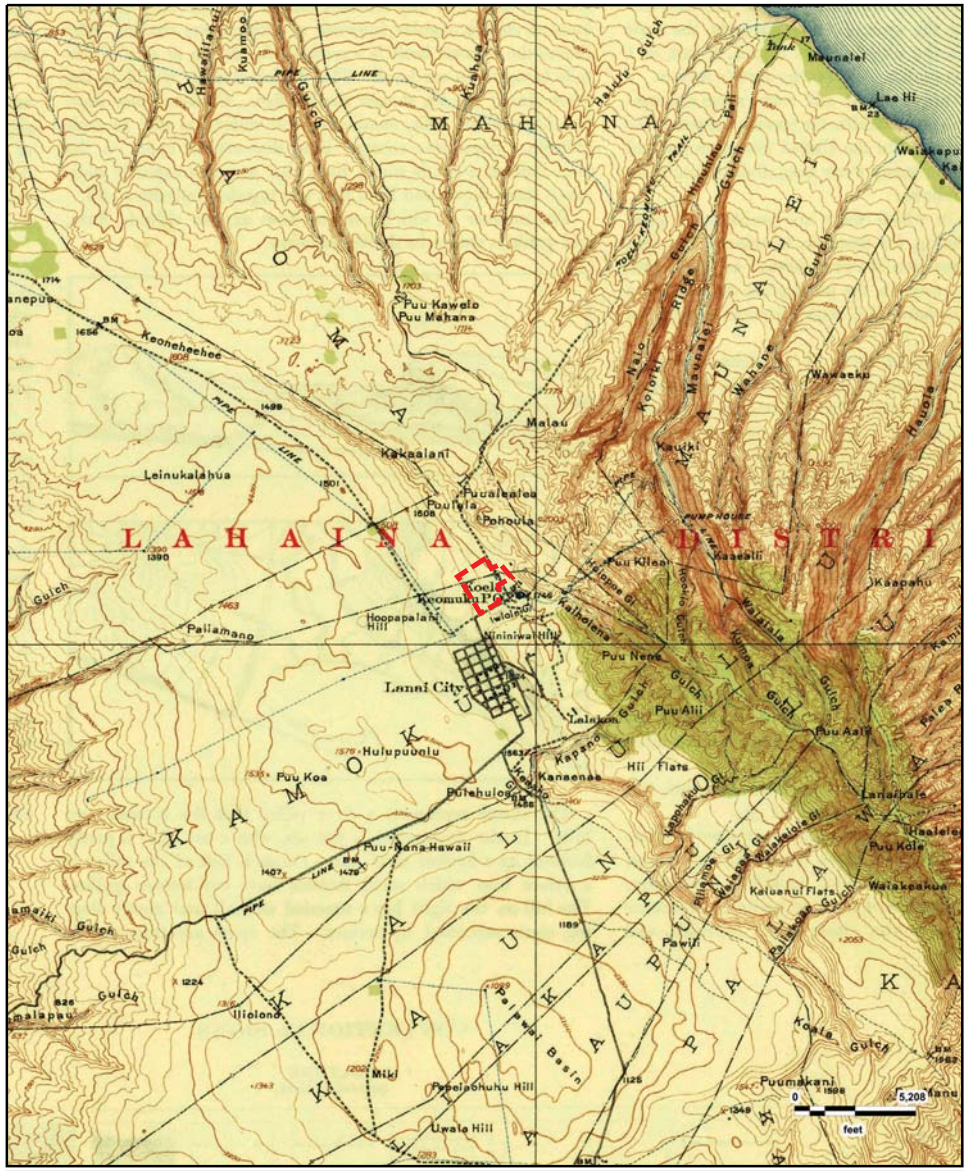


Lodge at Koele Expansion
Lanai North, HI (1984), Lanai South, HI (1984)

GeoSearch

JOB #: 305872 - 07/24/2019

REF-397



N
W E
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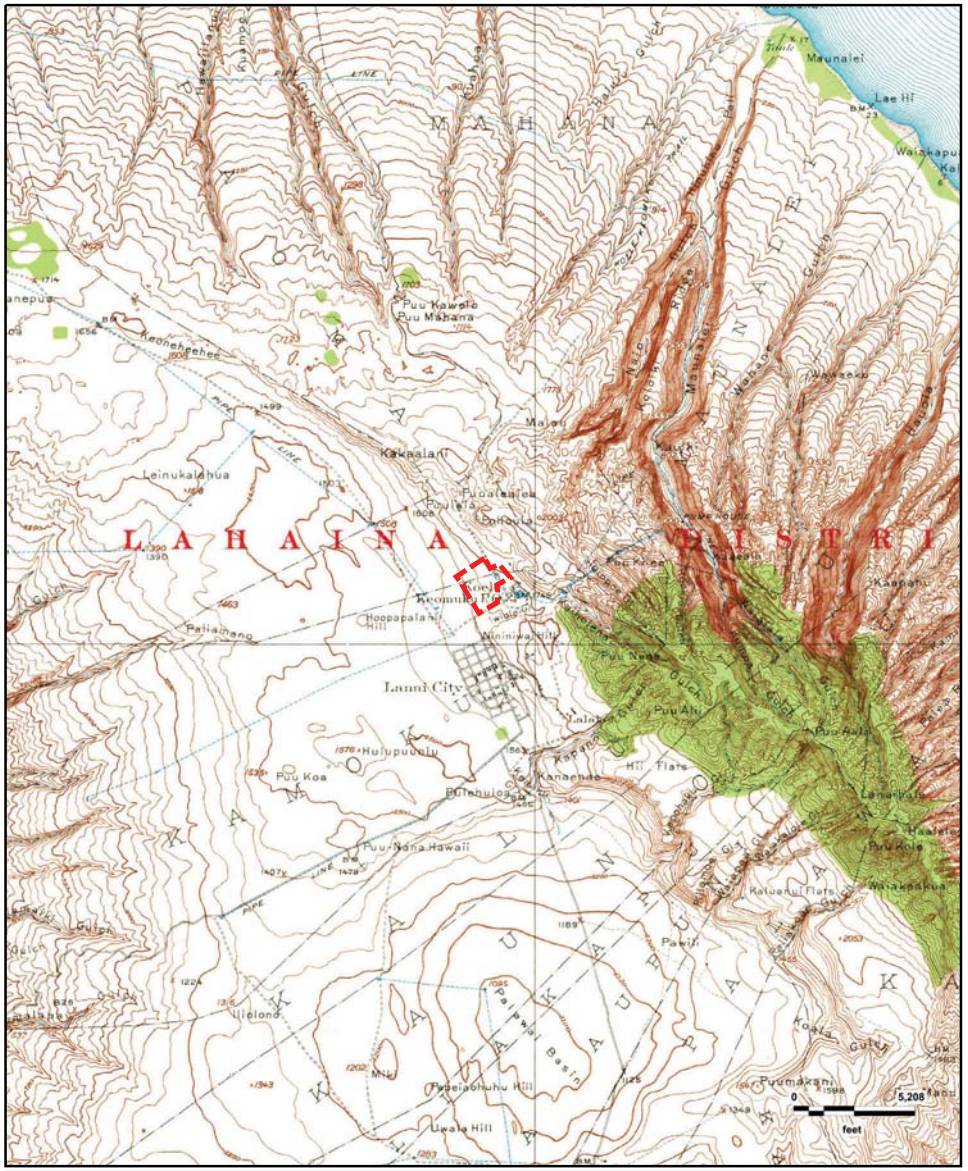
Lodge at Koele Expansion
Island of Lanai, HI (1925)

GeoSearch

JOB #: 305872 - 07/24/2019



N
W E
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Lodge at Koele Expansion
Island of Lanai, HI (1923)

GeoSearch

JOB #: 305872 - 07/24/2019

REF-398

GeoSearch
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City Directory Target Property Address

Target Property:

Keomuku Hwy,

Lanai City, HI 96763

Prepared For:
TRC-Portland

Order #: 130053

Project #: 352477

Date: 7/25/2019

City Directory Target Property Address

Keomuku Hwy, Lanai City, HI 96763

NO # KEOMUKU HWY

2019	EXPERIENCE AT KOELE	INFOUSA	SOUTH WEST
2008	LODGE AT KOELE	INFOUSA	WEST
2002	EXPERIENCE AT KOELE	INFOUSA	WEST

1 KEOMUKU HWY

2019	STREET BEGINS	INFOUSA	SOUTH WEST
2019	STREET NOT LISTED	R.L. POLK & CO.	HAWAII MAUI KAUAI
2019	ORTIZ RUPERTO	INFOUSA	SOUTH WEST
2019	X [END OF LISTINGS]	INFOUSA	SOUTH WEST
2014	STREET BEGINS	INFOUSA	SOUTH WEST
2014	EXPERIENCE AT KOELE	INFOUSA	SOUTH WEST
2014	FOUR SEASONS RESORT LANAI	INFOUSA	SOUTH WEST
2014	X [END OF LISTINGS]	INFOUSA	SOUTH WEST
2014	STREET NOT LISTED	R.L. POLK & CO.	HAWAII MAUI KAUAI
2008	X [END OF LISTINGS]	INFOUSA	WEST
2008	STREET BEGINS	INFOUSA	WEST
2002	STREET BEGINS	INFOUSA	WEST
2002	X [END OF LISTINGS]	INFOUSA	WEST

Comment: Keomuku Rd is listed as Keomuku Hwy. No coverage available for Lanai City prior to 2002.

REF-399

GeoSearch
On time. On target. In touch.™

City Directory Target Property Address

Target Property:

Kanepuu Hwy,

Lanai City, HI 96763

Prepared For:
TRC-Portland

Order #: 130053

Project #: 352477

Date: 7/25/2019

City Directory Target Property Address

Kanepuu Hwy, Lanai City, HI 96763

1 KANEPUU HWY

2019	STREET NOT LISTED	R.L. POLK & CO.	HAWAII MAUI KAUAI
2019	STREET NOT LISTED	INFOUSA	SOUTH WEST
2014	STREET NOT LISTED	R.L. POLK & CO.	HAWAII MAUI KAUAI
2014	STREET NOT LISTED	INFOUSA	SOUTH WEST
2008	STREET NOT LISTED	INFOUSA	WEST
2002	STREET NOT LISTED	INFOUSA	WEST

Comment: No coverage available for Lanai City prior to 2002.

REF-400

GeoSearch

On time. On target. In touch.™

Fire Insurance Map Abstract

Target Property:
Lodge at Koele Expansion
Keomuku Rd,
Lanai City, HI 96763

Prepared For:
TRC-Portland

Order #: 130053
Job #: 305876
Project #: 352477
Date #: 07/24/19

phone: 888-396-0042 · fax: 512-472-9967 · www.Geo-Search.com

GeoSearch FIM

Date: 07/24/19

GS Job Number: 130053

Company Name: TRC-Portland

Project Number: 352477

Site Information: Lodge at Koele Expansion
Keomuku Rd,
Lanai City, HI 96763

The collections of fire insurance maps listed below were reviewed according to the site information supplied by client. Based on the information provided, no coverage is available.

Library of Congress
University Publications of America
Other Libraries (universities, state, local, etc.).

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REF-401

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Appendix D:
Database Radius Map Report

GeoSearch
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Radius Report

GeoLens by GeoSearch

Target Property:

Lodge at Koele Expansion
Keomuku Rd
Lanai City, Maui County, Hawaii 96763

Prepared For:

TRC-Portland

Order #: 130053
Job #: 305870
Project #: 352477
Date: 07/23/2019

REF-402

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Unlocatable Report . . . . . See Attachment

Zip Report . . . . . See Attachment

Disclaimer

This report was designed by GeoSearch to meet or exceed the records search requirements of the All Appropriate Inquiries Rule (40 CFR Â§312.26) and the current version of the ASTM International E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process or, if applicable, the custom requirements requested by the entity that ordered this report. The records and databases of records used to compile this report were collected from various federal,state and local governmental entities. It is the goal of GeoSearch to meet or exceed the 40 CFRÂ§312.26 and E1527 requirements for updating records by using the best available technology. GeoSearch contacts the appropriate governmental entities on a recurring basis. Depending on the frequency with which a record source or database of records is updated by the governmental entity, the data used to prepare this report may be updated monthly, quarterly, semi-annually, or annually.

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REF-403

Target Property Summary

Target Property Information

Lodge at Koele Expansion
Keomuku Rd
Lanai City, Hawaii 96763

Coordinates
Area centroid (-156.92030, 20.8372852)
1,720 feet above sea level

USGS Quadrangle
Island Of Lanai Oe Nw, HI

Geographic Coverage Information

County/Parish: Maui (HI)
ZipCode(s):
Lanai City HI: 96763

Database Summary

FEDERAL LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
EMERGENCY RESPONSE NOTIFICATION SYSTEM	ERNSHI	0	0	TP/AP
FEDERAL ENGINEERING INSTITUTIONAL CONTROL SITES	EC	0	0	TP/AP
LAND USE CONTROL INFORMATION SYSTEM	LUCIS	0	0	TP/AP
RCRA SITES WITH CONTROLS	RCRASC	0	0	TP/AP
RESOURCE CONSERVATION & RECOVERY ACT - GENERATOR	RCRAGR09	0	0	0.1250
RESOURCE CONSERVATION & RECOVERY ACT - NON-GENERATOR	RCRANGR09	0	0	0.1250
BROWNFIELDS MANAGEMENT SYSTEM	BF	0	0	0.5000
DELISTED NATIONAL PRIORITIES LIST	DNPL	0	0	0.5000
NO LONGER REGULATED RCRA NON-CORRACTS TSD FACILITIES	NLRRCRAT	0	0	0.5000
RESOURCE CONSERVATION & RECOVERY ACT - NON-CORRACTS TREATMENT, STORAGE & DISPOSAL FACILITIES	RCRAT	0	0	0.5000
SUPERFUND ENTERPRISE MANAGEMENT SYSTEM	SEMS	0	0	0.5000
SUPERFUND ENTERPRISE MANAGEMENT SYSTEM ARCHIVED SITE INVENTORY	SEMSARCH	0	0	0.5000
NATIONAL PRIORITIES LIST	NPL	0	0	1.0000
NO LONGER REGULATED RCRA CORRECTIVE ACTION FACILITIES	NLRRCRAC	0	0	1.0000
PROPOSED NATIONAL PRIORITIES LIST	PNPL	0	0	1.0000
RESOURCE CONSERVATION & RECOVERY ACT - CORRECTIVE ACTION FACILITIES	RCRAC	0	0	1.0000
RESOURCE CONSERVATION & RECOVERY ACT - SUBJECT TO CORRECTIVE ACTION FACILITIES	RCRASUBC	0	0	1.0000
SUB-TOTAL		0	0	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
AEROMETRIC INFORMATION RETRIEVAL SYSTEM / AIR FACILITY SUBSYSTEM	AIRSAFS	0	0	TP/AP
BIENNIAL REPORTING SYSTEM	BRS	0	0	TP/AP
CERCLIS LIENS	SFLIENS	0	0	TP/AP
CLANDESTINE DRUG LABORATORY LOCATIONS	CDL	0	0	TP/AP
EPA DOCKET DATA	DOCKETS	0	0	TP/AP
ENFORCEMENT AND COMPLIANCE HISTORY INFORMATION	ECHOR09	0	0	TP/AP
FACILITY REGISTRY SYSTEM	FRSHI	0	0	TP/AP

REF-404

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
HAZARDOUS MATERIALS INCIDENT REPORTING SYSTEM	HMIRSR09	0	0	TP/AP
INTEGRATED COMPLIANCE INFORMATION SYSTEM (FORMERLY DOCKETS)	ICIS	0	0	TP/AP
INTEGRATED COMPLIANCE INFORMATION SYSTEM NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM	ICISNPDES	0	0	TP/AP
MATERIAL LICENSING TRACKING SYSTEM	MLTS	0	0	TP/AP
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM	NPDESR09	0	0	TP/AP
PCB ACTIVITY DATABASE SYSTEM	PADS	0	0	TP/AP
PERMIT COMPLIANCE SYSTEM	PCSR09	0	0	TP/AP
SEMS LIEN ON PROPERTY	SEMSLIENS	0	0	TP/AP
SECTION SEVEN TRACKING SYSTEM	SSTS	0	0	TP/AP
TOXIC SUBSTANCE CONTROL ACT INVENTORY	TSCA	0	0	TP/AP
TOXICS RELEASE INVENTORY	TRI	0	0	TP/AP
ALTERNATIVE FUELING STATIONS	ALTFUELS	0	0	0.2500
FEMA OWNED STORAGE TANKS	FEMAUST	0	0	0.2500
HISTORICAL GAS STATIONS	HISTPST	0	0	0.2500
INTEGRATED COMPLIANCE INFORMATION SYSTEM DRYCLEANERS	ICISCLEANERS	0	0	0.2500
MINE SAFETY AND HEALTH ADMINISTRATION MASTER INDEX FILE	MSHA	0	0	0.2500
MINERAL RESOURCE DATA SYSTEM	MRDS	0	0	0.2500
OPEN DUMP INVENTORY	ODI	0	0	0.5000
SURFACE MINING CONTROL AND RECLAMATION ACT SITES	SMCRA	0	0	0.5000
URANIUM MILL TAILINGS RADIATION CONTROL ACT SITES	USUMTRCA	0	0	0.5000
DEPARTMENT OF DEFENSE SITES	DOD	0	0	1.0000
FORMER MILITARY NIKE MISSILE SITES	NMS	0	0	1.0000
FORMERLY USED DEFENSE SITES	FUDS	0	0	1.0000
FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM	FUSRAP	0	0	1.0000
RECORD OF DECISION SYSTEM	RODS	0	0	1.0000
SUB-TOTAL		0	0	

STATE (HI) LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
SITES WITH ENGINEERING CONTROLS	HIEC	0	0	TP/AP
SITES WITH INSTITUTIONAL CONTROLS	HIIC	0	0	TP/AP
UNDERGROUND STORAGE TANKS	UST	0	1	0.2500
BROWNFIELD SITES	BF	0	0	0.5000
LEAKING UNDERGROUND STORAGE TANKS	LUST	0	0	0.5000
SOLID WASTE FACILITIES	SWF	0	0	0.5000
VOLUNTARY CLEANUP SITES	VCP	0	0	0.5000
STATE HAZARDOUS WASTE SITES	SHWS	4	10	1.0000
SUB-TOTAL		4	11	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
DRY CLEANING FACILITIES	CLEANERS	0	0	0.2500
SUB-TOTAL		0	0	

REF-405

Database Summary

TRIBAL LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
UNDERGROUND STORAGE TANKS ON TRIBAL LANDS	USTR09	0	0	0.2500
LEAKING UNDERGROUND STORAGE TANKS ON TRIBAL LANDS	LUSTR09	0	0	0.5000
OPEN DUMP INVENTORY ON TRIBAL LANDS	ODINDIAN	0	0	0.5000
SUB-TOTAL		0	0	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
INDIAN RESERVATIONS	INDIANRES	0	0	1.0000
SUB-TOTAL		0	0	
TOTAL		4	11	

Database Radius Summary

FEDERAL LISTING

Standard environmental records are displayed in bold.

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
AIRSAFS	0.0200	0	NS	NS	NS	NS	NS	0
BRS	0.0200	0	NS	NS	NS	NS	NS	0
CDL	0.0200	0	NS	NS	NS	NS	NS	0
DOCKETS	0.0200	0	NS	NS	NS	NS	NS	0
EC	0.0200	0	NS	NS	NS	NS	NS	0
ECHOR09	0.0200	0	NS	NS	NS	NS	NS	0
ERNSHI	0.0200	0	NS	NS	NS	NS	NS	0
FRSHI	0.0200	0	NS	NS	NS	NS	NS	0
HMIRSR09	0.0200	0	NS	NS	NS	NS	NS	0
ICIS	0.0200	0	NS	NS	NS	NS	NS	0
ICISNPDES	0.0200	0	NS	NS	NS	NS	NS	0
LUCIS	0.0200	0	NS	NS	NS	NS	NS	0
MLTS	0.0200	0	NS	NS	NS	NS	NS	0
NPDESR09	0.0200	0	NS	NS	NS	NS	NS	0
PADS	0.0200	0	NS	NS	NS	NS	NS	0
PCSR09	0.0200	0	NS	NS	NS	NS	NS	0
RCRASC	0.0200	0	NS	NS	NS	NS	NS	0
SEMSLIENS	0.0200	0	NS	NS	NS	NS	NS	0
SFLIENS	0.0200	0	NS	NS	NS	NS	NS	0
SSTS	0.0200	0	NS	NS	NS	NS	NS	0
TRI	0.0200	0	NS	NS	NS	NS	NS	0
TSCA	0.0200	0	NS	NS	NS	NS	NS	0
RCRAGR09	0.1250	0	0	NS	NS	NS	NS	0
RCRANGR09	0.1250	0	0	NS	NS	NS	NS	0
ALTFUELS	0.2500	0	0	0	NS	NS	NS	0
FEMAUST	0.2500	0	0	0	NS	NS	NS	0
HISTPST	0.2500	0	0	0	NS	NS	NS	0
ICISCLEANERS	0.2500	0	0	0	NS	NS	NS	0
MRDS	0.2500	0	0	0	NS	NS	NS	0
MSHA	0.2500	0	0	0	NS	NS	NS	0
BF	0.5000	0	0	0	0	NS	NS	0
DNPL	0.5000	0	0	0	0	NS	NS	0
NLRRCRAT	0.5000	0	0	0	0	NS	NS	0
ODI	0.5000	0	0	0	0	NS	NS	0
RCRAT	0.5000	0	0	0	0	NS	NS	0

REF-406

Database Radius Summary

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
SEMS	0.5000	0	0	0	0	NS	NS	0
SEMSARCH	0.5000	0	0	0	0	NS	NS	0
SMCRA	0.5000	0	0	0	0	NS	NS	0
USUMTRCA	0.5000	0	0	0	0	NS	NS	0
DOD	1.0000	0	0	0	0	0	NS	0
FUDS	1.0000	0	0	0	0	0	NS	0
FUSRAP	1.0000	0	0	0	0	0	NS	0
NLRRCRAC	1.0000	0	0	0	0	0	NS	0
NMS	1.0000	0	0	0	0	0	NS	0
NPL	1.0000	0	0	0	0	0	NS	0
PNPL	1.0000	0	0	0	0	0	NS	0
RCRAC	1.0000	0	0	0	0	0	NS	0
RCRASUBC	1.0000	0	0	0	0	0	NS	0
RODS	1.0000	0	0	0	0	0	NS	0
SUB-TOTAL		0	0	0	0	0	0	0

Database Radius Summary

STATE (HI) LISTING

Standard environmental records are displayed in bold.

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
HIEC	0.0200	0	NS	NS	NS	NS	NS	0
HIIC	0.0200	0	NS	NS	NS	NS	NS	0
CLEANERS	0.2500	0	0	0	NS	NS	NS	0
UST	0.2500	0	0	0	NS	NS	NS	0
BF	0.5000	0	0	0	0	NS	NS	0
LUST	0.5000	0	0	0	0	NS	NS	0
SWF	0.5000	0	0	0	0	NS	NS	0
VCP	0.5000	0	0	0	0	NS	NS	0
SHWS	1.0000	0	1	0	1	2	NS	4
SUB-TOTAL		0	1	0	1	2	0	4

REF-407

Database Radius Summary

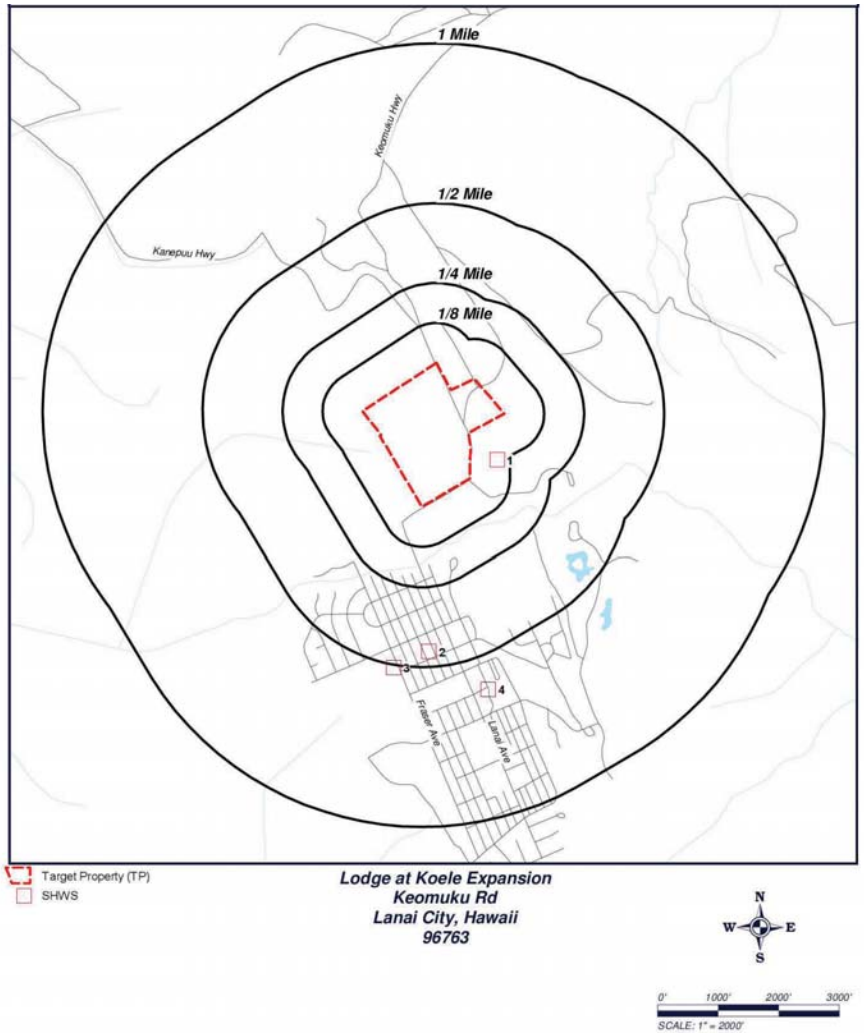
TRIBAL LISTING

Standard environmental records are displayed in bold.

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
USTR09	0.2500	0	0	0	NS	NS	NS	0
LUSTR09	0.5000	0	0	0	0	NS	NS	0
ODINDIAN	0.5000	0	0	0	0	NS	NS	0
INDIANRES	1.0000	0	0	0	0	0	NS	0
SUB-TOTAL		0	0	0	0	0	0	0
TOTAL		0	1	0	1	2	0	4

NOTES:
NS = NOT SEARCHED
TP/AP = TARGET PROPERTY/ADJACENT PROPERTY

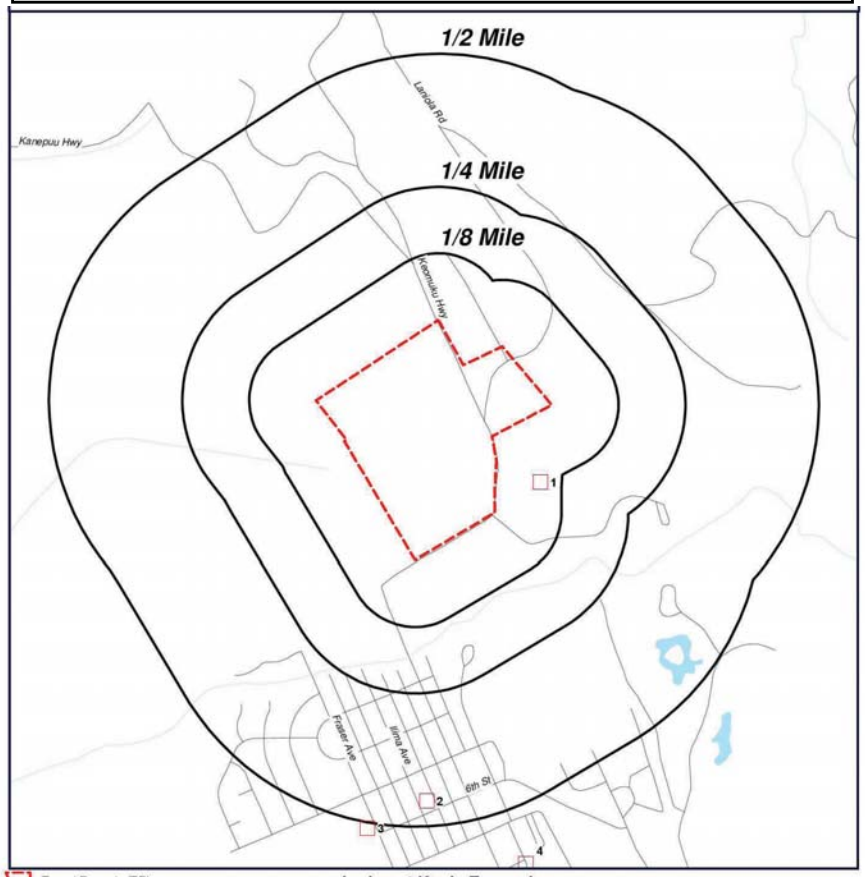
Radius Map 1



Click here to access Satellite view

REF-408

Radius Map 2



Target Property (TP)
SHWS

Lodge at Koele Expansion
Keomuku Rd
Lanai City, Hawaii
96763

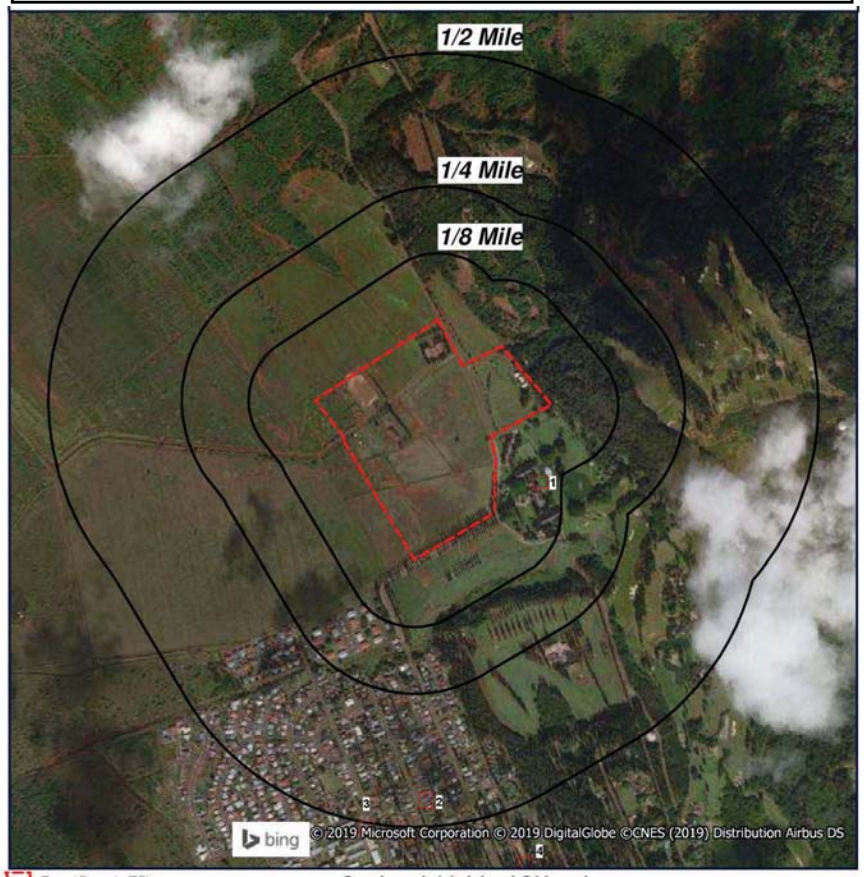
N W E S

0' 600' 1200' 1800'
SCALE: 1" = 1200'

Click here to access Satellite view

GeoSearch www.geo-search.com 888-396-0042

Ortho Map



Target Property (TP)
SHWS

Quadrangle(s): Island Of Lanai
Oe Nw
Lodge at Koele Expansion
Keomuku Rd
Lanai City, Hawaii
96763

N W E S

0' 600' 1200' 1800'
SCALE: 1" = 1200'

Click here to access Satellite view

GeoSearch www.geo-search.com 888-396-0042

REF-409

Located Sites Summary

NOTE: Standard environmental records are displayed in bold.

Map ID#	Database Name	Site ID#	Relative Elevation	Distance From Site	Site Name	Address	PAGE #
1	SHWS	3265556337	Higher (1,752 ft.)	0.085 mi. E (449 ft.)	LODGE AT KOELE	LANAI, HI 96763	15
2	SHWS	3530540246	Lower (1,624 ft.)	0.454 mi. S (2397 ft.)	MECO POLE-MOUNT TRANSFORMER NO. 0012	548 ILIMA ST, LANAI CITY, HI 96763	16
3	SHWS	4067464854	Lower (1,608 ft.)	0.512 mi. S (2703 ft.)	LANAI HIGH AND ELEMENTARY SCHOOL	555 FRASER AVE, LANAI CITY, HI 96763	17
4	SHWS	646535540	Lower (1,637 ft.)	0.608 mi. SSE (3210 ft.)	DOLE LANAI PLANTATION	730 LANAI AVE, LANAI CITY, HI 96763	19

Elevation Summary

Elevations are collected from the USGS 3D Elevation Program 1/3 arc-second (approximately 10 meters) layer hosted at the NGTOC. .

Target Property Elevation: 1720 ft.

NOTE: Standard environmental records are displayed in bold.

EQUAL/HIGHER ELEVATION

Map ID#	Database Name	Elevation	Site Name	Address	Page #
1	SHWS	1,752 ft.	LODGE AT KOELE	LANAI, HI 96763	15

LOWER ELEVATION

Map ID#	Database Name	Elevation	Site Name	Address	Page #
2	SHWS	1,624 ft.	MECO POLE-MOUNT TRANSFORMER NO. 0012	548 ILIMA ST, LANAI CITY, HI 96763	16
3	SHWS	1,608 ft.	LANAI HIGH AND ELEMENTARY SCHOOL	555 FRASER AVE, LANAI CITY, HI 96763	17
4	SHWS	1,637 ft.	DOLE LANAI PLANTATION	730 LANAI AVE, LANAI CITY, HI 96763	19

State Hazardous Waste Sites (SHWS)

MAP ID# 1

Distance from Property: 0.085 mi. (449 ft.) E
Elevation: 1,752 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: 3265556337
FACILITY SITE NAME: LODGE AT KOELE
ADDRESS: STREET NOT REPORTED
LANAI, HI 96763
SUPPLEMENTAL LOCATION: SPORTING CLAY LODGE AT KOELE
ISLAND: LANAI

SDAR ENVIRONMENTAL INTEREST NAME: KOELE LODGE DIESEL SPILL
HID NUMBER: NOT REPORTED
FACILITY REGISTRY IDENTIFIER: 110013771338
LEAD AGENCY: HEER
PROGRAM FULL NAME: STATE
POTENTIAL HAZARD AND CONTROLS: NO HAZARD
PRIORITY: NFA
ASSESSMENT: RESPONSE NECESSARY
RESPONSE: RESPONSE COMPLETE
RESPONSE ACTION COMPLETED: 8/18/2005
NATURE OF CONTAMINATION: NOT REPORTED
NATURE OF RESIDUAL CONTAMINATION: NOT REPORTED
USE RESTRICTIONS: NO HAZARD PRESENT FOR UNRESTRICTED RESIDENTIAL USE
ENGINEERING CONTROL: NOT REPORTED
DESCRIPTION OF RESTRICTIONS: NOT REPORTED
INSTITUTIONAL CONTROL: NOT REPORTED
DATE ISSUED: NOT REPORTED
WITHIN DESIGNATED AREAWIDE CONTAMINATION: NOT REPORTED
SITE CLOSURE DOCUMENT: NO FURTHER ACTION LETTER - UNRESTRICTED RESIDENTIAL USE
DOCUMENT DATE: 8/18/2005
DOCUMENT NUMBER: 2005-429-ES
DOCUMENT SUBJECT: "NO FURTHER ACTION" DETERMINATION - 1998 DIESEL FUEL SPILL
PROJECT MANAGER: ERIC SADOYAMA
CONTACT INFORMATION: (808) 586-4249 2385 WAIMANO HOME RD, PEARL CITY, HI 96782

TMK DETAILS

ASSOCIATED TMK(S): 249018001
DESCRIPTION OF PORTION: NOT REPORTED

Back to Report Summary

State Hazardous Waste Sites (SHWS)

MAP ID# 2

Distance from Property: 0.454 mi. (2,397 ft.) S
Elevation: 1,624 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: 3530540246
FACILITY SITE NAME: MECO POLE-MOUNT TRANSFORMER NO. 0012
ADDRESS: 548 ILIMA ST
LANAI CITY, HI 96763
SUPPLEMENTAL LOCATION: NOT REPORTED
ISLAND: LANAI

SDAR ENVIRONMENTAL INTEREST NAME: MECO POLE-MOUNT TRANSFORMER NO. 0012
HID NUMBER: NOT REPORTED
FACILITY REGISTRY IDENTIFIER: NOT REPORTED
LEAD AGENCY: HEER
PROGRAM FULL NAME: STATE
POTENTIAL HAZARD AND CONTROLS: NO HAZARD
PRIORITY: NFA
ASSESSMENT: RESPONSE NECESSARY
RESPONSE: RESPONSE COMPLETE
RESPONSE ACTION COMPLETED: 5/4/2012
NATURE OF CONTAMINATION: NOT REPORTED
NATURE OF RESIDUAL CONTAMINATION: BELOW HDOH EALS; TPH (<50 MG/KG), PCB (<0.5 MG/KG)
USE RESTRICTIONS: NO HAZARD PRESENT FOR UNRESTRICTED RESIDENTIAL USE
ENGINEERING CONTROL: NO ENGINEERING CONTROL REQUIRED
DESCRIPTION OF RESTRICTIONS: NOT REPORTED
INSTITUTIONAL CONTROL: NOT REPORTED
DATE ISSUED: NOT REPORTED
WITHIN DESIGNATED AREAWIDE CONTAMINATION: NOT REPORTED
SITE CLOSURE DOCUMENT: NO FURTHER ACTION LETTER - UNRESTRICTED RESIDENTIAL USE
DOCUMENT DATE: 5/4/2012
DOCUMENT NUMBER: 2012-282-AH
DOCUMENT SUBJECT: NO FURTHER ACTION DETERMINATION FOR MECO TRANSFORMER NO 0012, NO 8338, NO 8656, NO 8804, NO 11543 AND PAD-MOUNT TRANSFORMER AT POLE E-2
PROJECT MANAGER: AMELIA HICKS
CONTACT INFORMATION: (808) 586-4249 2385 WAIMANO HOME RD, PEARL CITY, HI 96782

TMK DETAILS NOT REPORTED

Back to Report Summary

REF-411

MAP ID# 3

Distance from Property: 0.512 mi. (2,703 ft.) S
Elevation: 1,608 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: 4067464854
FACILITY SITE NAME: LANAI HIGH AND ELEMENTARY SCHOOL
ADDRESS: 555 FRASER AVE
LANAI CITY, HI 96763
SUPPLEMENTAL LOCATION: LANAI HIGH AND ELEMENTARY SCHOOL
ISLAND: LANAI

SDAR ENVIRONMENTAL INTEREST NAME: LANAI HIGH AND ELEMENTARY SCHOOL
HID NUMBER: NOT REPORTED
FACILITY REGISTRY IDENTIFIER: NOT REPORTED
LEAD AGENCY: HEER
PROGRAM FULL NAME: STATE
POTENTIAL HAZARD AND CONTROLS: NO HAZARD
PRIORITY: NFA
ASSESSMENT: RESPONSE NOT NECESSARY
RESPONSE: NOT REPORTED
RESPONSE ACTION COMPLETED: 7/14/2010
NATURE OF CONTAMINATION: NOT REPORTED
NATURE OF RESIDUAL CONTAMINATION: NOT REPORTED
USE RESTRICTIONS: NO HAZARD PRESENT FOR UNRESTRICTED RESIDENTIAL USE
ENGINEERING CONTROL: NOT REPORTED
DESCRIPTION OF RESTRICTIONS: NOT REPORTED
INSTITUTIONAL CONTROL: NOT REPORTED
DATE ISSUED: NOT REPORTED
WITHIN DESIGNATED AREAWIDE CONTAMINATION: NOT REPORTED
SITE CLOSURE DOCUMENT: NO ACTION LETTER
DOCUMENT DATE: 7/14/2010
DOCUMENT NUMBER: 2010-401-JP
DOCUMENT SUBJECT: NO ACTION LETTER UPON REVIEW OF SITE INVESTIGATION REPORT FOR LANAI HIGH AND ELEMENTARY SCHOOL, LANAI CITY, HI, TMK 2-4-9-014-002 (~8 ACRES)
PROJECT MANAGER: JOHN PEARD
CONTACT INFORMATION: (808) 933-9921 ENVIRONMENTAL HEALTH BLDG, 1582 KAMEHAMEHA AVE, HILO, HI 96720

TMK DETAILS

ASSOCIATED TMK(S): 249002058
DESCRIPTION OF PORTION: 42 ACRE PORTION EXPANSION AREA AS OF 08/26/2009

ASSOCIATED TMK(S): 249014002
DESCRIPTION OF PORTION: EXPANSION AREA AS OF 08/26/2009

ASSOCIATED TMK(S): 249014003
DESCRIPTION OF PORTION: EXISTING SCHOOL SITE AS OF 08/26/2009

ASSOCIATED TMK(S): 249014004
DESCRIPTION OF PORTION: EXISTING SCHOOL SITE AS OF 08/26/2009

ASSOCIATED TMK(S): 249014005
DESCRIPTION OF PORTION: 0.0968 PORTION EXPANSION AREA AS OF 08/26/2009

ASSOCIATED TMK(S): 249014011
DESCRIPTION OF PORTION: 1.028 ACRE PORTION EXPANSION AREA AS OF 08/26/2009

Back to Report Summary

REF-412

State Hazardous Waste Sites (SHWS)

MAP ID# 4

Distance from Property: 0.608 mi. (3,210 ft.) SSE
Elevation: 1,637 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: 646535540
FACILITY SITE NAME: DOLE LANAI PLANTATION
ADDRESS: 730 LANAI AVE
LANAI CITY, HI 96763
SUPPLEMENTAL LOCATION: NOT REPORTED
ISLAND: LANAI

SDAR ENVIRONMENTAL INTEREST NAME: DOLE LANAI EMULSION PLANT, DRAINAGE DITCH AND SETTLING POND
HID NUMBER: NOT REPORTED
FACILITY REGISTRY IDENTIFIER: 110005723574
LEAD AGENCY: HEER
PROGRAM FULL NAME: SITE DISCOVERY
POTENTIAL HAZARD AND CONTROLS: HAZARD UNDETERMINED
PRIORITY: LOW
ASSESSMENT: ASSESSMENT ONGOING
RESPONSE: NOT REPORTED
RESPONSE ACTION COMPLETED: NOT REPORTED
NATURE OF CONTAMINATION: NOT REPORTED
NATURE OF RESIDUAL CONTAMINATION: NOT REPORTED
USE RESTRICTIONS: UNDETERMINED
ENGINEERING CONTROL: NOT REPORTED
DESCRIPTION OF RESTRICTIONS: NOT REPORTED
INSTITUTIONAL CONTROL: NOT REPORTED
DATE ISSUED: NOT REPORTED
WITHIN DESIGNATED AREAWIDE CONTAMINATION: NOT REPORTED
SITE CLOSURE DOCUMENT: NOT REPORTED
DOCUMENT DATE: NOT REPORTED
DOCUMENT NUMBER: NOT REPORTED
DOCUMENT SUBJECT: NOT REPORTED
PROJECT MANAGER: LAURA YOUNG
CONTACT INFORMATION: (808) 586-4249 2385 WAIMANO HOME RD, PEARL CITY, HI 96782

TMK DETAILS

ASSOCIATED TMK(S): 249002001
DESCRIPTION OF PORTION: NOT REPORTED

ASSOCIATED TMK(S): 249014001
DESCRIPTION OF PORTION: NOT REPORTED

Back to Report Summary

Unlocated Sites Summary

This list contains sites that could not be mapped due to limited or incomplete address information.

Database Name	Site ID#	Site Name	Address	City/State/Zip/County
SHWS	2442214058	DOLE PINEAPPLE PESTICIDE SITE LANAI DDT STORAGE TANK AREA		LANAI CITY, HI
SHWS	33041716	DOLE PINEAPPLE PESTICIDE SITE LANAI DRUM SITE NUMBER 1		LANAI CITY, HI
SHWS	2725794493	DOLE PINEAPPLE PESTICIDE SITE LANAI DRUM SITE NUMBER 2		LANAI CITY, HI
SHWS	1977055749	DOLE PINEAPPLE PESTICIDE SITE LANAI DRUM SITE NUMBER 3		LANAI CITY, HI
SHWS	3297760966	DOLE PINEAPPLE PESTICIDE SITE LANAI DUMP SITE		LANAI CITY, HI
SHWS	2668564406	DOLE PINEAPPLE PESTICIDE SITE LANAI DUMP SITE PALAWI BASIN		LANAI CITY, HI
SHWS	988078149	DOLE PLANTATION (PALAWAI & 5319 BASINS)	PALAWAI ST	LANAI CITY, HI 96763
SHWS	2947450250	FORMER EMULSION PLANT - FRASER DEVELOPMENT SITE	FRASER AVE	LANAI CITY, HI 96763
SHWS	3468429701	LANAI CITY EXPANSION 200 HOUSING UNIITS		LANAI CITY, HI
SHWS	2842441152	LANAI CITY EXPANSION 200 HOUSING UNITS		LANAI CITY, HI
UST	9-403819	FORMER LANAI RADAR STATION	TMK 4-9-02	ZIPCODE UNKNOWN, HI 99999

REF-413

AIRSAFS Aerometric Information Retrieval System / Air Facility Subsystem

VERSION DATE: 10/20/14

The United States Environmental Protection Agency (EPA) modified the Aerometric Information Retrieval System (AIRS) to a database that exclusively tracks the compliance of stationary sources of air pollution with EPA regulations: the Air Facility Subsystem (AFS). Since this change in 2001, the management of the AIRS/AFS database was assigned to EPA's Office of Enforcement and Compliance Assurance.

BRS Biennial Reporting System

VERSION DATE: 12/31/15

The United States Environmental Protection Agency (EPA), in cooperation with the States, biennially collects information regarding the generation, management, and final disposition of hazardous wastes regulated under the Resource Conservation and Recovery Act of 1976 (RCRA), as amended. The Biennial Report captures detailed data on the generation of hazardous waste from large quantity generators and data on waste management practices from treatment, storage and disposal facilities. Currently, the EPA states that data collected between 1991 and 1997 was originally a part of the defunct Biennial Reporting System and is now incorporated into the RCRAInfo data system.

CDL Clandestine Drug Laboratory Locations

VERSION DATE: 12/29/18

The U.S. Department of Justice ("the Department") provides this information as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments. The Department does not establish, implement, enforce, or certify compliance with clean-up or remediation standards for contaminated sites; the public should contact a state or local health department or environmental protection agency for that information.

DOCKETS EPA Docket Data

VERSION DATE: 12/22/05

The United States Environmental Protection Agency Docket data lists Civil Case Defendants, filing dates as far back as 1971, laws broken including section, violations that occurred, pollutants involved, penalties assessed and superfund awards by facility and location. Please refer to ICIS database as source of current data.

EC Federal Engineering Institutional Control Sites

VERSION DATE: 08/03/15

This database includes site locations where Engineering and/or Institutional Controls have been identified as part

of a selected remedy for the site as defined by United States Environmental Protection Agency official remedy decision documents. A site listing does not indicate that the institutional and engineering controls are currently in place nor will be in place once the remedy is complete; it only indicates that the decision to include either of them in the remedy is documented as of the completed date of the document. Institutional controls are actions, such as legal controls, that help minimize the potential for human exposure to contamination by ensuring appropriate land or resource use. Engineering controls include caps, barriers, or other device engineering to prevent access, exposure, or continued migration of contamination. The data included in this report was extracted from the final CERCLIS dataset (CERCLIS was a Superfund data system that EPA decommissioned in 2014 following its deployment of the Superfund Enterprise Management System), which represents program progress as of the end of fiscal year 2013.

ECHOR09 Enforcement and Compliance History Information

VERSION DATE: 03/09/19

The U.S. Environmental Protection Agency's Enforcement and Compliance History Online (ECHO) database, provides compliance and enforcement information for facilities nationwide. This database includes facilities regulated as Clean Air Act stationary sources, Clean Water Act direct dischargers, Resource Conservation and Recovery Act hazardous waste handlers, Safe Drinking Water Act public water systems along with other data, such as Toxics Release Inventory releases.

ERNSHI Emergency Response Notification System

VERSION DATE: 04/07/19

This National Response Center database contains data on reported releases of oil, chemical, radiological, biological, and/or etiological discharges into the environment anywhere in the United States and its territories. The data comes from spill reports made to the U.S. Environmental Protection Agency, U.S. Coast Guard, the National Response Center and/or the U.S. Department of Transportation.

FRSHI Facility Registry System

VERSION DATE: 04/05/19

The United States Environmental Protection Agency's Office of Environmental Information (OEI) developed the Facility Registry System (FRS) as the centrally managed database that identifies facilities, sites or places subject to environmental regulations or of environmental interest. The Facility Registry System replaced the Facility Index System or FINDS database.

HMIRSR09 Hazardous Materials Incident Reporting System

VERSION DATE: 04/14/19

The HMIRS database contains unintentional hazardous materials release information reported to the U.S. Department of Transportation located in EPA Region 9. This region includes the following states: Arizona, California, Hawaii, Nevada, and the territories of Guam and American Samoa.

REF-414

ICIS Integrated Compliance Information System (formerly DOCKETS)

VERSION DATE: 03/09/19

ICIS is a case activity tracking and management system for civil, judicial, and administrative federal Environmental Protection Agency enforcement cases. ICIS contains information on federal administrative and federal judicial cases under the following environmental statutes: the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, the Emergency Planning and Community Right-to-Know Act - Section 313, the Toxic Substances Control Act, the Federal Insecticide, Fungicide, and Rodenticide Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Safe Drinking Water Act, and the Marine Protection, Research, and Sanctuaries Act.

ICISNPDES Integrated Compliance Information System National Pollutant Discharge Elimination System

VERSION DATE: 07/09/17

Authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. This database is provided by the U.S. Environmental Protection Agency.

LUCIS Land Use Control Information System

VERSION DATE: 09/01/06

The LUCIS database is maintained by the U.S. Department of the Navy and contains information for former Base Realignment and Closure (BRAC) properties across the United States.

MLTS Material Licensing Tracking System

VERSION DATE: 06/29/17

MLTS is a list of approximately 8,100 sites which have or use radioactive materials subject to the United States Nuclear Regulatory Commission (NRC) licensing requirements. Disclaimer: Due to agency regulations and policies, this database contains applicant/licensee location information which may or may not be related to the physical location per MLTS site.

NPDESR09 National Pollutant Discharge Elimination System

VERSION DATE: 04/01/07

Authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. The NPDES database was collected from the U.S. Environmental Protection Agency (EPA) from December 2002 through April 2007. Refer to the PCS and/or ICIS-NPDES database as source of current data. This database includes permitted facilities located in EPA Region 9. This region includes the following states: Arizona, California, Hawaii, Nevada, and the territories of Guam and American Samoa.

PADS PCB Activity Database System

VERSION DATE: 09/14/18

PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the U.S. Environmental Protection Agency of such activities.

PCSR09 Permit Compliance System

VERSION DATE: 08/01/12

The Permit Compliance System is used in tracking enforcement status and permit compliance of facilities controlled by the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act and is maintained by the United States Environmental Protection Agency's Office of Compliance. PCS is designed to support the NPDES program at the state, regional, and national levels. This database includes permitted facilities located in EPA Region 9. This region includes the following states: Arizona, California, Hawaii, Nevada, and the territories of Guam and American Samoa. PCS has been modernized, and no longer exists. National Pollutant Discharge Elimination System (ICIS-NPDES) data can now be found in Integrated Compliance Information System (ICIS).

RCRASC RCRA Sites with Controls

VERSION DATE: 04/24/19

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities with institutional controls in place.

SEMSLIENS SEMS Lien on Property

VERSION DATE: 08/13/18

The U.S. Environmental Protection Agency's (EPA) Office of Solid Waste and Emergency Response, Office of Superfund Remediation and Technology Innovation (OSRTI), has implemented The Superfund Enterprise Management System (SEMS), formerly known as CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) to track and report on clean-up and enforcement activities taking place at Superfund sites. SEMS represents a joint development and ongoing collaboration between Superfund's Remedial, Removal, Federal Facilities, Enforcement and Emergency Response programs. This is a listing of SEMS sites with a lien on the property.

SFLIENS CERCLIS Liens

VERSION DATE: 06/08/12

REF-415

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which United States Environmental Protection Agency has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties. This database contains those CERCLIS sites where the Lien on Property action is complete. Please refer to the SEMSLIENS database as source of current data.

SSTS Section Seven Tracking System

VERSION DATE: 02/01/17

The United States Environmental Protection Agency tracks information on pesticide establishments through the Section Seven Tracking System (SSTS). SSTS records the registration of new establishments and records pesticide production at each establishment. The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) requires that production of pesticides or devices be conducted in a registered pesticide-producing or device-producing establishment. ("Production" includes formulation, packaging, repackaging, and relabeling.)

TRI Toxics Release Inventory

VERSION DATE: 12/31/16

The Toxics Release Inventory, provided by the United States Environmental Protection Agency, includes data on toxic chemical releases and waste management activities from certain industries as well as federal and tribal facilities. This inventory contains information about the types and amounts of toxic chemicals that are released each year to the air, water, and land as well as information on the quantities of toxic chemicals sent to other facilities for further waste management.

TSCA Toxic Substance Control Act Inventory

VERSION DATE: 12/31/12

The Toxic Substances Control Act (TSCA) was enacted in 1976 to ensure that chemicals manufactured, imported, processed, or distributed in commerce, or used or disposed of in the United States do not pose any unreasonable risks to human health or the environment. TSCA section 8(b) provides the United States Environmental Protection Agency authority to "compile, keep current, and publish a list of each chemical substance that is manufactured or processed in the United States." This TSCA Chemical Substance Inventory contains non-confidential information on the production amount of toxic chemicals from each manufacturer and importer site.

RCRAGR09 Resource Conservation & Recovery Act - Generator

VERSION DATE: 04/01/19

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers

to facilities currently generating hazardous waste. EPA Region 9 includes the following states: Arizona, California, Hawaii, Nevada, and the territories of Guam and American Samoa.

RCRANGR09 Resource Conservation & Recovery Act - Non-Generator

VERSION DATE: 04/01/19

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities classified as non-generators. Non-Generators do not presently generate hazardous waste. EPA Region 9 includes the following states: Arizona, California, Hawaii, Nevada, and the territories of Guam and American Samoa.

ALTFUELS Alternative Fueling Stations

VERSION DATE: 03/01/19

Nationwide list of alternative fueling stations made available by the U.S. Department of Energy's Office of Energy Efficiency & Renewable Energy. Includes Bio-diesel stations, Ethanol (E85) stations, Liquefied Petroleum Gas (Propane) stations, Ethanol (E85) stations, Natural Gas stations, Hydrogen stations, and Electric Vehicle Supply Equipment (EVSE).

FEMAUST FEMA Owned Storage Tanks

VERSION DATE: 12/01/16

This is a listing of FEMA owned underground and aboveground storage tank sites. For security reasons, address information is not released to the public according to the U.S. Department of Homeland Security.

HISTPST Historical Gas Stations

VERSION DATE: NR

This historic directory of service stations is provided by the Cities Service Company. The directory includes Cities Service filling stations that were located throughout the United States in 1930.

ICISCLEANERS Integrated Compliance Information System Drycleaners

VERSION DATE: 03/09/19

This is a listing of drycleaner facilities from the Integrated Compliance Information System (ICIS). The U.S. Environmental Protection Agency (EPA) tracks facilities that possess NAIC and SIC codes that classify businesses as drycleaner establishments.

REF-416

MRDS Mineral Resource Data System

VERSION DATE: 03/15/16

MRDS (Mineral Resource Data System) is a collection of reports describing metallic and nonmetallic mineral resources throughout the world. Included are deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references. This database contains the records previously provided in the Mineral Resource Data System (MRDS) of USGS and the Mineral Availability System/Mineral Industry Locator System (MAS/MILS) originated in the U.S. Bureau of Mines, which is now part of USGS.

MSHA Mine Safety and Health Administration Master Index File

VERSION DATE: 03/15/19

The Mine dataset lists all Coal and Metal/Non-Metal mines under MSHA's jurisdiction since 1/1/1970. It includes such information as the current status of each mine (Active, Abandoned, NonProducing, etc.), the current owner and operating company, commodity codes and physical attributes of the mine. Mine ID is the unique key for this data. This information is provided by the United States Department of Labor - Mine Safety and Health Administration (MSHA).

BF Brownfields Management System

VERSION DATE: 03/31/19

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. The United States Environmental Protection Agency maintains this database to track activities in the various brown field grant programs including grantee assessment, site cleanup and site redevelopment. This database included tribal brownfield sites.

DNPL Delisted National Priorities List

VERSION DATE: 06/11/19

This database includes sites from the United States Environmental Protection Agency's Final National Priorities List (NPL) where remedies have proven to be satisfactory or sites where the original analyses were inaccurate, and the site is no longer appropriate for inclusion on the NPL, and final publication in the Federal Register has occurred.

NLRRCRAT No Longer Regulated RCRA Non-CORRACTS TSD Facilities

VERSION DATE: 04/01/19

This database includes RCRA Non-Corrective Action TSD facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements. This listing includes facilities that formerly treated, stored or disposed of hazardous waste.

ODI Open Dump Inventory

VERSION DATE: 06/01/85

The open dump inventory was published by the United States Environmental Protection Agency. An "open dump" is defined as a facility or site where solid waste is disposed of which is not a sanitary landfill which meets the criteria promulgated under section 4004 of the Solid Waste Disposal Act (42 U.S.C. 6944) and which is not a facility for disposal of hazardous waste. This inventory has not been updated since June 1985.

RCRAT Resource Conservation & Recovery Act - Non-CORRACTS Treatment, Storage & Disposal Facilities

VERSION DATE: 04/01/19

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities recognized as hazardous waste treatment, storage, and disposal sites (TSD).

SEMS Superfund Enterprise Management System

VERSION DATE: 06/11/19

The U.S. Environmental Protection Agency's (EPA) Office of Solid Waste and Emergency Response, Office of Superfund Remediation and Technology Innovation (OSRTI), has implemented The Superfund Enterprise Management System (SEMS), formerly known as CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) to track and report on clean-up and enforcement activities taking place at Superfund sites. SEMS represents a joint development and ongoing collaboration between Superfund's Remedial, Removal, Federal Facilities, Enforcement and Emergency Response programs.

SEMSARCH Superfund Enterprise Management System Archived Site Inventory

VERSION DATE: 06/11/19

The U.S. Environmental Protection Agency's (EPA) Superfund Enterprise Management System Archived Site Inventory (List 8R Archived) replaced the CERCLIS NFRAP reporting system in 2015. This listing reflects sites at which the EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program.

SMCRA Surface Mining Control and Reclamation Act Sites

VERSION DATE: 03/19/19

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by the Office of Surface Mining Reclamation and Enforcement (OSMRE) to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type,

and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

USUMTRCA Uranium Mill Tailings Radiation Control Act Sites

VERSION DATE: 03/04/17

The Legacy Management Office of the Department of Energy (DOE) manages radioactive and chemical waste, environmental contamination, and hazardous material at over 100 sites across the U.S. The L.M. Office manages this database of sites registered under the Uranium Mill Tailings Control Act (UMTRCA).

DOD Department of Defense Sites

VERSION DATE: 12/01/14

This information originates from the National Atlas of the United States Federal Lands data, which includes lands owned or administered by the Federal government. Army DOD, Army Corps of Engineers DOD, Air Force DOD, Navy DOD and Marine DOD areas of 640 acres or more are included.

FUDS Formerly Used Defense Sites

VERSION DATE: 06/01/15

The Formerly Used Defense Sites (FUDS) inventory includes properties previously owned by or leased to the United States and under Secretary of Defense Jurisdiction, as well as Munitions Response Areas (MRAs). The remediation of these properties is the responsibility of the Department of Defense. This data is provided by the U.S. Army Corps of Engineers (USACE), the boundaries/polygon data are based on preliminary findings and not all properties currently have polygon data available. DISCLAIMER: This data represents the results of data collection/processing for a specific USACE activity and is in no way to be considered comprehensive or to be used in any legal or official capacity as presented on this site. While the USACE has made a reasonable effort to insure the accuracy of the maps and associated data, it should be explicitly noted that USACE makes no warranty, representation or guaranty, either expressed or implied, as to the content, sequence, accuracy, timeliness or completeness of any of the data provided herein. For additional information on Formerly Used Defense Sites please contact the USACE Public Affairs Office at (202) 528-4285.

FUSRAP Formerly Utilized Sites Remedial Action Program

VERSION DATE: 03/04/17

The U.S. Department of Energy (DOE) established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from the Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations. The DOE Office of Legacy Management (LM) established long-term surveillance and maintenance (LTS&M) requirements for remediated FUSRAP sites. DOE evaluates the final site conditions of a remediated site on the basis of risk for different future uses. DOE then confirms that LTS&M requirements will maintain protectiveness.

NLRRCRAC No Longer Regulated RCRA Corrective Action Facilities

VERSION DATE: 04/01/19

This database includes RCRA Corrective Action facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements.

NMS Former Military Nike Missile Sites

VERSION DATE: 12/01/84

This information was taken from report DRXTH-AS-IA-83A016 (Historical Overview of the Nike Missile System, 12/1984) which was performed by Environmental Science and Engineering, Inc. for the U.S. Army Toxic and Hazardous Materials Agency Assessment Division. The Nike system was deployed between 1954 and the mid-1970's. Among the substances used or stored on Nike sites were liquid missile fuel (JP-4); starter fluids (UDKH, aniline, and furfuryl alcohol); oxidizer (IRFNA); hydrocarbons (motor oil, hydraulic fluid, diesel fuel, gasoline, heating oil); solvents (carbon tetrachloride, trichloroethylene, trichloroethane, stoddard solvent); and battery electrolyte. The quantities of material a disposed of and procedures for disposal are not documented in published reports. Virtually all information concerning the potential for contamination at Nike sites is confined to personnel who were assigned to Nike sites. During deactivation most hardware was shipped to depot-level supply points. There were reportedly instances where excess materials were disposed of on or near the site itself at closure. There was reportedly no routine site decontamination.

NPL National Priorities List

VERSION DATE: 06/11/19

This database includes United States Environmental Protection Agency (EPA) National Priorities List sites that fall under the EPA's Superfund program, established to fund the cleanup of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action.

PNPL Proposed National Priorities List

VERSION DATE: 06/11/19

This database contains sites proposed to be included on the National Priorities List (NPL) in the Federal Register. The United States Environmental Protection Agency investigates these sites to determine if they may present long-term threats to public health or the environment.

RCRAC Resource Conservation & Recovery Act - Corrective Action Facilities

VERSION DATE: 04/01/19

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems

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that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities with corrective action activity.

RCRASUBC Resource Conservation & Recovery Act - Subject to Corrective Action Facilities

VERSION DATE: 04/01/19

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities subject to corrective actions.

RODS Record of Decision System

VERSION DATE: 05/14/19

These decision documents maintained by the United States Environmental Protection Agency describe the chosen remedy for NPL (Superfund) site remediation. They also include site history, site description, site characteristics, community participation, enforcement activities, past and present activities, contaminated media, the contaminants present, and scope and role of response action.

HIEC Sites with Engineering Controls

VERSION DATE: 04/17/19

This list of site with engineering controls is queried from the HEER (Hazard Evaluation and and Emergency Response) Sites of Interest database. Sites are queried by Engineering Control = Engineering Control Required.

HIIC Sites with Institutional Controls

VERSION DATE: 04/17/19

This list of sites with institutional controls is queried from the HEER (Hazard Evaluation and and Emergency Response) Sites of Interest database. Sites are queried by Institutional Control = "Government" and "Proprietary" .

CLEANERS Dry Cleaning Facilities

VERSION DATE: 05/02/19

The Department of Health maintains this list of permitted dry cleaning facilities. This list includes both perchloric and petroleum permits.

UST Underground Storage Tanks

VERSION DATE: 02/28/19

The Hawaii State Department of Health Solid and Hazardous Waste Branch regulates and maintains this list of underground storage tanks.

BF Brownfield Sites

VERSION DATE: 04/17/19

This list of brownfields is queried from the HEER (Hazard Evaluation and and Emergency Response) Sites of Interest database. Sites are queried by Program Full Name = Brownfields.

LUST Leaking Underground Storage Tanks

VERSION DATE: 02/28/19

The Hawaii State Department of Health Solid and Hazardous Waste Branch regulates and maintains this list of leaking underground storage tanks.

SWF Solid Waste Facilities

VERSION DATE: 04/22/19

This database of permitted solid waste facilities is maintained by the Hawaii Department of Public Health Solid &

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Environmental Records Definitions - STATE (HI)

Hazardous Waste Branch.

VCP	Voluntary Cleanup Sites
VERSION DATE: 04/17/19	

This list of voluntary cleanup sites is queried from the HEER (Hazard Evaluation and and Emergency Response) Sites of Interest database. Sites are queried by Program Full Name = Voluntary Response Program.

SHWS	State Hazardous Waste Sites
VERSION DATE: 04/17/19	

The HEER Sites of Interest Lookup database includes only those facilities, sites and areas where follow up oversight has been initiated by the SDAR section under HRS 128D (including CERCLIS sites). This list includes all sites for which the SDAR section has an environmental interest, including military sites and older, inactive sites that have insufficient available information to make regulatory determinations about closure.

Environmental Records Definitions - TRIBAL

USTR09	Underground Storage Tanks On Tribal Lands
VERSION DATE: 10/10/18	

This database, provided by the United States Environmental Protection Agency (EPA), contains underground storage tanks on Tribal lands located in EPA Region 9. This region includes the following states: Arizona, California, Hawaii, Nevada, and the territories of Guam and American Samoa.

LUSTR09	Leaking Underground Storage Tanks On Tribal Lands
VERSION DATE: 10/10/18	

This database, provided by the United States Environmental Protection Agency (EPA), contains leaking underground storage tanks on Tribal lands located in EPA Region 9. This region includes the following states: Arizona, California, Hawaii, Nevada, and the territories of Guam and American Samoa.

ODINDIAN	Open Dump Inventory on Tribal Lands
VERSION DATE: 11/08/06	

This Indian Health Service database contains information about facilities and sites on tribal lands where solid waste is disposed of, which are not sanitary landfills or hazardous waste disposal facilities, and which meet the criteria promulgated under section 4004 of the Solid Waste Disposal Act (42 U.S.C. 6944).

INDIANRES	Indian Reservations
VERSION DATE: 01/01/00	

The Department of Interior and Bureau of Indian Affairs maintains this database that includes American Indian Reservations, off-reservation trust lands, public domain allotments, Alaska Native Regional Corporations and Recognized State Reservations.

REF-420

Appendix E:
Photograph Log

1. North property boundary looking north across adjacent undeveloped property.

2. North property boundary looking northwest across adjacent undeveloped property.

3. West property boundary looking west across adjacent undeveloped property.

4. West-southwest property boundary looking west-southwest across adjacent pastures.

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5. Southwest property boundary looking southwest to adjacent residential development.

6. South property boundary looking south across Keomoku Road with adjacent golf course beyond.

7. East-southeast property boundary looking east to adjacent Lodge at Koele Resort property.

8. Northwest property boundary looking south across Site.

Lodge at Koele Expansion Lana'i City, Hawaii	TRC Project Number – 352477

9. Overview of horse pastures with small sheds for the livestock.

10. Center of the Site looking southwest across the horse pastures with adjacent residential development beyond.

11. West property boundary looking east across the Site.

12. Southwest property boundary looking north across the Site.

Lodge at Koele Expansion Lana'i City, Hawaii	TRC Project Number – 352477

13. East-southeast property boundary looking west across the Site.

12. Overview of the construction laydown portion of the Site.

15. Overview of the construction laydown portion of the Site.

16. Overview of the construction laydown portion of the Site.

17. Tennis courts located in the north corner of the Site.

18. Evidence of pineapple plantation activities on the Site.

19. Sand staging area while they are renovating the Lodge at Koele golf course; arena used for barrel racing.

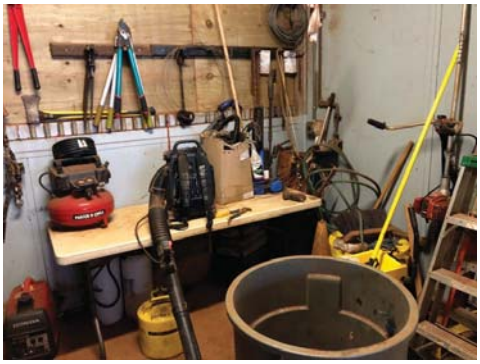
20. Storage containers and construction debris located near the barrel racing arena.

21. Lana'i Ranch horse stable building.

22. Horse stable office with window air conditioning unit.

23. Horse stable flammable cabinet.

24. Diesel container in the horse stables building.



25. Horse stables various tools.

26. Horse stables laundry room with bleach and retail sized cleaning products.

27. Gators at the horse stables.

28. Floor drain at the horse stables.

29. Horse stables dumpster.

30. Shed in the horse pastures for shelter for the horses and other livestock.

31. Empty 55-gallon drums used for barrel racing.

32. Container staging area adjacent to Lana'i Ranch.

33. Container staging area generator.

34. Flammable cabinet and other storage – no access.

35. Container staging area - portable toilet.

36. Split air conditioning unit on a storage container.

37. Cleared area and equipment located along the west-northwest area of the Site.

38. Empty drums and debris piles located in the container staging area.

39. Drainage ditch near the container staging area.

40. Overgrown vegetation located in the west-northwest portion of the Site.

41. Construction laydown portion of the Site – typical equipment.

42. Construction laydown portion of the Site – typical construction materials.

43. Construction laydown portion of the Site – portable toilet and gator (typical).

44. Construction laydown portion of the Site –locked flammable cabinet (typical).

45. Construction laydown portion of the Site – ASTs with water for landscaping contractor.

46. Construction laydown portion of the Site – storage containers, no access.

47. Residential structure located on the east portion of the Site – scheduled to be moved to a new location off Site.

48. Residential structure and storage building located on the east portion of the Site – scheduled to be moved to a new location off Site. Propane AST located on the exterior of the residence. Blue drums are empty.

49. Transformer located on the east portion of the Site.

50. Construction laydown portion of the Site – boom lift (typical).

51. Construction laydown portion of the Site – paint, stains and wood finish storage.

52. Construction laydown portion of the Site – epoxy, paints, and other materials storage.

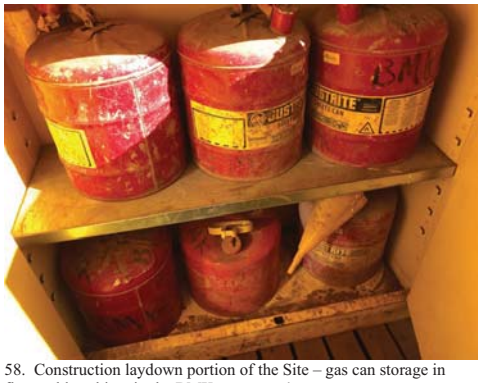
53. Construction laydown portion of the Site – diesel containers.

54. Construction laydown portion of the Site – propane and acetylene cannister storage.

55. Construction laydown portion of the Site – construction materials storage (typical).

56. Construction laydown portion of the Site – 55-gallon drums with used rags in the paint booth.

57. Construction laydown portion of the Site – 55-gallon drums with used rags in the paint booth.



58. Construction laydown portion of the Site – gas can storage in flammable cabinet in the BMK contractor's tent.

59. Construction laydown portion of the Site – masonry sealer storage.

60. Construction laydown portion of the Site – typical unlocked flammable cabinet.

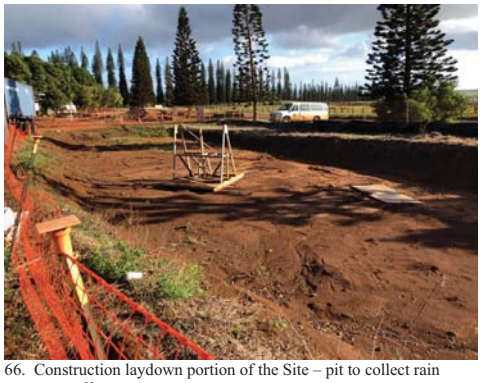
61. Construction laydown portion of the Site – four construction trailers with exterior mounted central HVAC units.

62. Construction laydown portion of the Site – inside construction trailer (typical).

63. Construction laydown portion of the Site – ice machines.

64. Construction laydown portion of the Site – tent (typical).

65. Construction laydown portion of the Site – *de minimus* staining in the BMK contractor's tent (no leaking containers or known source observed).



66. Construction laydown portion of the Site – pit to collect rain water run off.

67. Construction laydown portion of the Site – construction materials (typical).

68. Construction laydown portion of the Site – TruValue flammable and corrosive containers in poor condition.

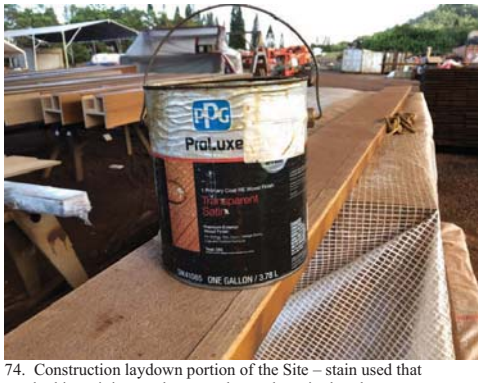
69. Construction laydown portion of the Site – dumpster.

70. Construction laydown portion of the Site – paint booth with tarps covering the ground.

71. Construction laydown portion of the Site – staining on the ground near the paint booth.

72. Construction laydown portion of the Site – staining on the ground near the paint booth.

73. Construction laydown portion of the Site – staining on the ground near the paint booth.



74. Construction laydown portion of the Site – stain used that resulted in staining on the ground near the paint booth.

TRC

Appendix F:
Other Reference Information

Recent Sales in Neighborhood Recent Sales in Area	Previous Parcel	Next Parcel	Return to Main Search Page	Maui Home

Owner and Parcel Information

Owner Name	LANAI RESORTS LLC Fee Owner STATE OF HAWAII Leasee Show All Owners and Addresses	**Today's Date**	March 29, 2019
Mailing Address	733 BISHOP ST, SUITE 2000 HONOLULU HI 96813	**Parcel Number**	490020010000
Location Address	1007 MIKI RD	**Parcel Map**	Show Parcel Map
Neighborhood Code	4962-1	**Land Area**	69269.997 Acres
Legal Information		**Parcel Note**	
Generate Owner List By Radius			

Assessment Information Show Historical Assessments

Year	Tax Class	Market Land Value	Agricultural Land Value	Assessed Land Value	Building Value	Total Assessed Value	Total Exemption Value	Total Net Taxable Value
2019	AGRICULTURAL	$ 7,499,500	$ 1,620,300	$ 1,620,300	$ 1,823,700	$ 3,444,000	$ 0	$ 3,444,000
2019	CONSERVATION	$ 7,792,300	$ 0	$ 7,792,300	$ 0	$ 7,792,300	$ 0	$ 7,792,300
2019	RESIDENTIAL	$ 2,526,700	$ 0	$ 2,526,700	$ 368,700	$ 2,895,400	$ 0	$ 2,895,400
2019	INDUSTRIAL	$ 3,008,400	$ 0	$ 3,008,400	$ 9,640,900	$ 12,649,300	$ 0	$ 12,649,300

Agricultural Assessment Information

Acres	Description	Assessed Value
90	DIVERS GD	$ 45,000
193.8419	HOME SITE	$ 1,032,200
10868	PASTUR	$ 456,456
17328.79	WASTE LAND	$ 86,600

This parcel has land in agricultural usage and therefore agricultural usage assessments have been made.

Current Tax Bill Information 2018 Tax Payments Show Historical Taxes

Tax Period	Description	Original Due Date	Taxes Assessment	Tax Credits	Net Tax	Penalty	Interest	Other	Amount Due
No Tax Information available on this parcel.									

Improvement Information

Building Number	Style	Year Built	Eff Year Built	Percent Complete	Living Area	Construction Type
1	Contemporary	1946	1985	100 %	1,100	Masonry
Heating/Cooling	**Exterior Wall**	**Bedrooms/Full Bath/Half Bath**	**Roof Material**	**Fireplace**	**Building Value**	**Sketch**
NONE	STUCCO	3/1/0	Composition Shingle		$ 199,000	Sketch Building 1

Building Number	Style	Year Built	Eff Year Built	Percent Complete	Living Area	Construction Type
2	Contemporary	1940		100 %	554	Frame
Heating/Cooling	**Exterior Wall**	**Bedrooms/Full Bath/Half Bath**	**Roof Material**	**Fireplace**	**Building Value**	**Sketch**
NONE	FIR/PINE	1/1/0	Composition Shingle		$ 37,000	Sketch Building 2
Building Number	**Style**	**Year Built**	**Eff Year Built**	**Percent Complete**	**Living Area**	**Construction Type**
3	Contemporary	1940		100 %	584	Frame
Heating/Cooling	**Exterior Wall**	**Bedrooms/Full Bath/Half Bath**	**Roof Material**	**Fireplace**	**Building Value**	**Sketch**

NONE	FIR/PINE	1/1/0	Composition Shingle		$ 40,000	Sketch Building 3

Building Number	Style	Year Built	Eff Year Built	Percent Complete	Living Area	Construction Type
4	Contemporary	1940		100 %	638	Frame
Heating/Cooling	**Exterior Wall**	**Bedrooms/Full Bath/Half Bath**	**Roof Material**	**Fireplace**	**Building Value**	**Sketch**
NONE	FIR/PINE	1/1/0	Composition Shingle		$ 45,600	Sketch Building 4

Building Number	Style	Year Built	Eff Year Built	Percent Complete	Living Area	Construction Type
9	Contemporary	1935	1958	100 %	521	Frame
Heating/Cooling	**Exterior Wall**	**Bedrooms/Full Bath/Half Bath**	**Roof Material**	**Fireplace**	**Building Value**	**Sketch**
NONE	FIR/PINE	3/2/0	Corrugated metal		$ 66,700	Sketch Building 5

Building Number	Style	Year Built	Eff Year Built	Percent Complete	Living Area	Construction Type
10	Contemporary	1947	1975	100 %	1,590	Frame
Heating/Cooling	**Exterior Wall**	**Bedrooms/Full Bath/Half Bath**	**Roof Material**	**Fireplace**	**Building Value**	**Sketch**
NONE	FIR/PINE	3/1/0	Metal shingle		$ 170,500	Sketch Building 6

Building Number	Style	Year Built	Eff Year Built	Percent Complete	Living Area	Construction Type
11	Contemporary	1940	1975	100 %	984	Frame
Heating/Cooling	**Exterior Wall**	**Bedrooms/Full Bath/Half Bath**	**Roof Material**	**Fireplace**	**Building Value**	**Sketch**
NONE	FIR/PINE	1/1/0	Composition Shingle		$ 122,100	Sketch Building 7

Building Number	Style	Year Built	Eff Year Built	Percent Complete	Living Area	Construction Type
14	Contemporary	1996		100 %	576	Frame
Heating/Cooling	**Exterior Wall**	**Bedrooms/Full Bath/Half Bath**	**Roof Material**	**Fireplace**	**Building Value**	**Sketch**
NONE	REDWOOD/CEDAR	0/0/0	Composition Shingle		$ 91,500	Sketch Building 8

Commercial Improvement Information

Building Number	Building Type	Structure	Year Built	Eff Year Built	% Complete	Building Square Footage	Sketch	Value
6	KAUMALAPAU HARBOR	COMMER FRAME C1	1927		100 %	0	Sketch Building 9	$ 64,700
Section	**Floor #**	**Area**	**Perimeter**	**Usage**	**Wall Height**	**Exterior Wall**	**Construction**	
1	01	960	136	OFFICES	10	MASONRY CMU	WOOD/LT STEEL FRAME	

Building Number	Building Type	Structure	Year Built	Eff Year Built	% Complete	Building Square Footage	Sketch	Value
7	COUNTY BSYD BLDG	WAREHS STEEL W2	1991		100 %	0	Sketch Building 10	$ 456,100
Section	**Floor #**	**Area**	**Perimeter**	**Usage**	**Wall Height**	**Exterior Wall**	**Construction**	
1	01	4032	260	WAREHOUSE	15	MASONRY CMU	METAL WAREHOUSE	

Building Number	Building Type	Structure	Year Built	Eff Year Built	% Complete	Building Square Footage	Sketch	Value
8	SHUTTLE STATION	WAREHS STEEL W2	1972		100 %	0	NA	$ 253,600
Section	**Floor #**	**Area**	**Perimeter**	**Usage**	**Wall Height**	**Exterior Wall**	**Construction**	
1	01	3280	1	WAREHOUSE	25	MASONRY CMU	METAL WAREHOUSE	

Building Number	Building Type	Structure	Year Built	Eff Year Built	% Complete	Building Square Footage	Sketch	Value
12	LANAI CO	COMMER FRAME C1	1988		100 %	0	Sketch Building 12	$ 58,500
Section	**Floor #**	**Area**	**Perimeter**	**Usage**	**Wall Height**	**Exterior Wall**	**Construction**	
1	01	192	64	OFFICES	10	MASONRY CMU	WOOD/LT STEEL FRAME	

Building Number	Building Type	Structure	Year Built	Eff Year Built	% Complete	Building Square Footage	Sketch	Value
24	WASTEWATER PLANT	COMMER MASONRY C4	1989		100 %	0	Sketch Building 13	$ 178,700
Section	**Floor #**	**Area**	**Perimeter**	**Usage**	**Wall Height**	**Exterior Wall**	**Construction**	
1	01	625	100	OFFICES	10	MASONRY CMU	MASONRY	

Building Number	Building Type	Structure	Year Built	Eff Year Built	% Complete	Building Square Footage	Sketch	Value
25	WASTEWATER PLANT	WAREHS MAS W2	1989		100 %	0	Sketch Building 14	$ 25,000
Section	**Floor #**	**Area**	**Perimeter**	**Usage**	**Wall Height**	**Exterior Wall**	**Construction**	
1	01	200	60	WAREHOUSE	11	MASONRY CMU	MASONRY	

Building Number	Building Type	Structure	Year Built	Eff Year Built	% Complete	Building Square Footage	Sketch	Value
26	WASTEWATER PLANT	WAREHS MAS W2	1989		100 %	0	Sketch Building 15	$ 245,900
Section	**Floor #**	**Area**	**Perimeter**	**Usage**	**Wall Height**	**Exterior Wall**	**Construction**	
1	01	1472	156	WAREHOUSE	15	MASONRY CMU	MASONRY	
2	01	252	64	WAREHOUSE	15	MASONRY CMU	MASONRY	
3	01	432	48	WAREHOUSE	15	MASONRY CMU	MASONRY	

Building Number	Building Type	Structure	Year Built	Eff Year Built	% Complete	Building Square Footage	Sketch	Value
27	MIKI BASIN WAREHSE - WOODSHOP	WAREHS STEEL W2	2014		0 %	0	Sketch Building 16	$ 0
Section	**Floor #**	**Area**	**Perimeter**	**Usage**	**Wall Height**	**Exterior Wall**	**Construction**	
1	01	10042	399	WAREHOUSE	28	MASONRY CMU	METAL WAREHOUSE	

Building Number	Building Type	Structure	Year Built	Eff Year Built	% Complete	Building Square Footage	Sketch	Value
28	MIKI BASIN WAREHOUSE #1	WAREHS STEEL W2	2014		100 %	0	Sketch Building 17	$ 1,389,800
Section	**Floor #**	**Area**	**Perimeter**	**Usage**	**Wall Height**	**Exterior Wall**	**Construction**	
1	01	8235	348	WAREHOUSE	28	MASONRY CMU	METAL WAREHOUSE	

Building Number	Building Type	Structure	Year Built	Eff Year Built	% Complete	Building Square Footage	Sketch	Value
29	MIKI BASIN WAREHOUSE #2	WAREHS STEEL W2	2014		100 %	0	Sketch Building 18	$ 1,389,800
Section	**Floor #**	**Area**	**Perimeter**	**Usage**	**Wall**	**Exterior Wall**	**Construction**	

REF-432

					Height		
1	01	8235	348	WAREHOUSE	28	MASONRY CMU	METAL WAREHOUSE

Building Number	Building Type	Structure	Year Built	Eff Year Built	% Complete	Building Square Footage	Sketch	Value
30	MIKI BASIN WAREHOUSE #3	WAREHS STEEL W2	2014		100 %	0	Sketch Building 19	$ 2,437,200

Section	Floor #	Area	Perimeter	Usage	Wall Height	Exterior Wall	Construction
1	01	16412	581	WAREHOUSE	28	MASONRY CMU	METAL WAREHOUSE
		1705		LOAD DOCK,ST OR CONC			

Building Number	Building Type	Structure	Year Built	Eff Year Built	% Complete	Building Square Footage	Sketch	Value
31	MIKI BASIN WAREHOUSE #4	WAREHS STEEL W2	2014		100 %	0	Sketch Building 20	$ 2,553,100

Accessory Information

Building Number	Description	Dimensions/Units	Year Built	Percent Complete	Value
1	GARAGE W00D/PAVED FLOOR	0x0 484 / 1	1997	100 %	$ 12,700
1	MASONRY UTILITY SHED	0x0 140 / 1	2003	100 %	$ 12,100
2	FRAME UTILITY SHED	0x0 1,260 / 1	1940	100 %	$ 9,400
2	FRAME UTILITY SHED	0x0 1,080 / 1	1940	100 %	$ 8,200
2	FRAME UTILITY SHED	0x0 540 / 1	1940	100 %	$ 4,700
6	8	0x0 10,000 / 1	1950	100 %	$ 148,300
6	REF TK CN BBL	0x0 10,000 / 1	1950	100 %	$ 148,300
6	8	0x0 2,380 / 1	1950	100 %	$ 76,800
6	REF TK CN BBL	0x0 2,380 / 1	1950	100 %	$ 76,800
6	8	0x0 2,000 / 2	1950	100 %	$ 146,200
6	REF TK CN BBL	0x0 2,000 / 2	1950	100 %	$ 146,200
6	8	0x0 2,000 / 1	1950	100 %	$ 73,100
6	REF TK CN BBL	0x0 2,000 / 1	1950	100 %	$ 73,100
6	8	0x0 2,000 / 1	1950	100 %	$ 73,100
6	REF TK CN BBL	0x0 2,000 / 1	1950	100 %	$ 73,100
6	FRAME UTILITY SHED	0x0 154 / 1	1984	100 %	$ 2,600
7	MASONRY UTILITY SHED	0x0 240 / 1	1997	100 %	$ 11,100
8	CANOPY ONLY	0x0 15,750 / 1	1993	100 %	$ 625,600
8	CARPORT OPEN GRAVEL FLOOR	0x0 320 / 3	1998	100 %	$ 6,700
8	FRAME UTILITY SHED	0x0 560 / 1	1975	100 %	$ 7,000
10	GARAGE W00D/PAVED FLOOR	0x0 1,900 / 1	1988	100 %	$ 21,300
12	FRAME UTILITY SHED	0x0 1,440 / 1	2016	100 %	$ 80,600
12	FRAME UTILITY SHED	0x0 1,440 / 1	2016	100 %	$ 80,600
12	FRAME UTILITY SHED	0x0 1,440 / 1	2016	100 %	$ 80,600
12	FRAME UTILITY SHED	0x0 1,817 / 1	2016	100 %	$ 97,700
12	FRAME UTILITY SHED	0x0 420 / 1	2016	100 %	$ 29,900
13	BANK BARN	0x0 3,456 / 1	1990	100 %	$ 300,600
13	BARN	0x0 3,456 / 1	1990	100 %	$ 300,600
13	CONCRETE GAME COURT	0x0 21,600 / 1	1990	100 %	$ 72,000
13	GARAGE W00D/PAVED FLOOR	0x0 256 / 1	1999	100 %	$ 8,800
14	FRAME UTILITY SHED	0x0 360 / 1	1996	100 %	$ 10,400
14	FRAME UTILITY SHED	0x0 110 / 2	1996	100 %	$ 8,400

Sales Information

Sale Date	Price	Instrument #	Instrument Type	Valid Sale or Other	Document Type	Record Date	Land Court #	Land Court Cert
06/26/2015	$ 0		Land Court Order (all types)		Land Court Order (all types)	07/08/2015	T9312234	
03/20/2014	$ 0		Easements	Related individuals	Grant of easement	07/08/2014	T8954233	1044093
09/27/2012	$ 0		Land Court Order (all types)		Land Court Order (all types)	10/02/2012	T8310375	
06/22/2012	$ 4,698,400		Fee conveyance	Related individuals	Warranty deed	06/22/2012	T8208437	1044094
06/22/2012	$ 6,834,800		Fee conveyance	Related individuals	Warranty deed	06/22/2012	T8208436	1044093
06/22/2012	$ 930,400		Fee conveyance	Related individuals	Warranty deed	06/22/2012	T8208438	1044095
04/09/2009	$ 0		Route slip		Grant of easement	01/01/2017		
09/30/2008	$ 682,850		Lease		Memorandum of Lease	10/31/2008	3802724	496176
07/17/2008	$ 0		Route slip		Land Court	07/29/2010	3984152	990451
08/15/2000	$ 0		Recorded document		Final Order of Condemnation	08/28/2000	2646775	488592
03/30/1999	$ 0	0000000000						
01/19/1999	$ 0	0000000000						
01/19/1999	$ 0	0000000000						
02/19/1998	$ 0	0000000000						
06/20/1997	$ 0	0000000000	Fee conveyance			11/03/1997	2412777	500190
02/20/1997	$ 0	0000000000				02/27/1997	2367524	469176
12/27/1996	$ 0	0000000000						
12/16/1996	$ 0	0000000000						
01/18/1996	$ 0	0000000000				01/18/1996	123147	469169
12/08/1995	$ 0	9500159448	Fee conveyance			12/08/1995	2277104	466406
02/10/1995	$ 0	0000000000						
02/10/1995	$ 0	0000000000						
02/10/1995	$ 0	0000000000						
02/10/1995	$ 0	0000000000						
10/07/1994	$ 0	0000000000						
07/15/1994	$ 0	0000000000	Lease			07/21/1994	2165943	324345
01/05/1994	$ 0	0000000000						
11/09/1993	$ 0	0000000000						
05/04/1992	$ 0	0000000000						
05/04/1992	$ 0	0000000000						
05/04/1992	$ 0	0000000000						
12/23/1991	$ 0	0000000000						
11/22/1991	$ 0	0000000000				11/25/1991	1867489	324345
10/22/1991	$ 0	0000000000						
10/22/1991	$ 0	0000000000						
04/26/1991	$ 0	0000000000						
07/27/1990	$ 0	0000000000						
02/23/1990	$ 0	0000000000				04/28/1990	1724733	324345
01/16/1990	$ 0	0000000000						
01/05/1989	$ 71,475	8900001428	Fee conveyance			01/05/1989	1605307	323848
07/28/1987	$ 0	8700113911	Fee conveyance			07/29/1987		

Permit Information

Date	Permit Number	Reason	Permit Amount
02/11/2019	B20190130	Other see notes	$ 461,500
02/13/2017	B20170200	Storage bldg	$ 250,000
03/03/2016	B20160253	Other see notes	$ 516,954
12/04/2015	BX20150141	Farm bldg	$ 0
12/04/2015	BX20150140	Farm bldg	$ 0
12/04/2015	BX20150139	Farm bldg	$ 0
12/04/2015	BX20150138	Farm bldg	$ 0
12/04/2015	BX20150137	Farm bldg	$ 0
11/03/2015	BX20150125	Farm bldg	$ 0
11/03/2015	BX20150124	Farm bldg	$ 0
11/03/2015	BX20150123	Farm bldg	$ 0

11/03/2015	BX20150122	Farm bldg	$ 0
04/02/2015	B20150476	Other see notes	$ 150,000
04/14/2014	B20140498	Other see notes	$ 100,000
04/14/2014	B20140497	Retaining Wall	$ 100,000
04/14/2014	B20140496	Other see notes	$ 50,000
04/14/2014	B20140495	New commercial bldg	$ 450,000
04/14/2014	B20140494	Warehouse	$ 1,500,000
04/14/2014	B20140493	Warehouse	$ 1,500,000
04/14/2014	B20140492	Warehouse	$ 500,000
04/14/2014	B20140491	Warehouse	$ 300,000
04/14/2014	B20140490	Modular building	$ 102,782
03/21/2014	B20140379	Other see notes	$ 65,651
03/21/2014	B20140378	Other see notes	$ 1,786,534
03/21/2014	B20140377	Other see notes	$ 1,950,338
08/21/2013	B20130892	Other see notes	$ 3,381
08/21/2013	B20130891	Other see notes	$ 14,300
08/21/2013	B20130890	Storage bldg	$ 325,120
05/22/2013	B20130553	Other see notes	$ 120,000
08/21/2012	B201230962	Other see notes	$ 1,000,000
08/21/2012	B20120963	Other see notes	$ 2,000
01/12/2012	B20120036	Storage bldg	$ 130,500
11/23/2011	B20111286	Other see notes	$ 80,000
09/12/2011	B20110961	Other see notes	$ 85,000
09/12/2011	B20110953	Other see notes	$ 95,000
07/22/2011	B20110714	Other see notes	$ 15,000
11/12/2010	B20101342	Storage bldg	$ 10,000
08/19/2003	B20031656	Storage bldg	$ 15,000
08/11/1999	991420	Storage bldg	$ 0
10/06/1998	981727		$ 0
08/04/1998	981343	Storage bldg	$ 2,000
08/04/1998	981342	Storage bldg	$ 2,000
08/04/1998	981341	Storage bldg	$ 2,000
04/15/1998	B980593	Addition	$ 15,000
02/06/1998	980177		$ 30,000
11/26/1996	B962004		$ 0
11/26/1996	B962002		$ 0
10/20/1995	952370	Garage	$ 29,000
10/20/1995	952369	Addition	$ 10,160
02/10/1993	B930246	Re-Roof	$ 56,000
12/01/1992	B922837	Storage bldg	$ 93,000
09/23/1992	92 2251		$ 1,000
12/11/1990	B903436		$ 200,000
12/11/1990	90 3436		$ 200,000
10/10/1990	B902798	Addition	$ 6,000
02/07/1990	90 0372		$ 10,000
11/15/1989	89 2887	Farm bldg	$ 400,000
05/02/1989	89 1015	Deck	$ 2,500
01/04/1989	89 0012		$ 2,500
08/13/1987	87 2100	Garage	$ 10,000
08/04/1987	87 2020		$ 96,382
05/01/1987	87 1142		$ 100,000

Recent Sales in Neighborhood Recent Sales in Area	Previous Parcel	Next Parcel	Return to Main Search Page	Maui Home

The Maui County Tax Assessor's Office makes every effort to produce the most accurate information possible. No warranties, expressed or implied, are provided for the data herein, its use or interpretation. Website Updated: March 23, 2019

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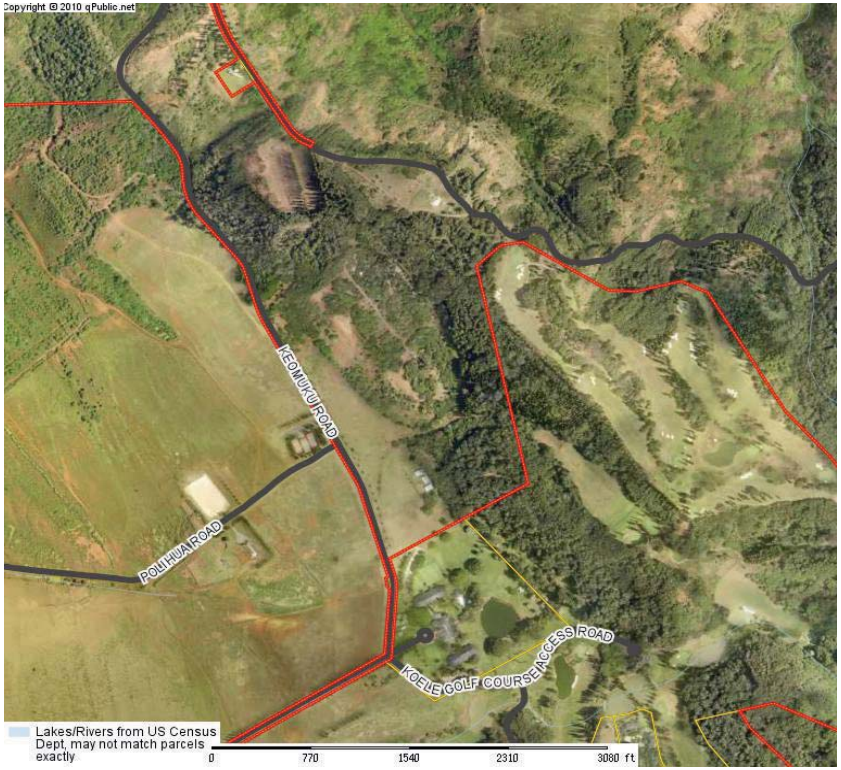

Maui County Assessor			
Parcel: 490020010000 Acres: 69270			
Name:	LANAI RESORTS LLC	Land Value	$1,620,300.00
Site:	1007 MIKI RD	Building Value	$1,823,700.00
Sale:		Misc Value	$0.00
Mail:	733 BISHOP ST, SUITE 2000 HONOLULU HI 96813 ,	Just Value	$0.00
		Assessed Value	$3,444,000.00
		Exempt Value	$0.00
		Taxable Value	$3,444,000.00

The Maui County Assessor's Office makes every effort to produce the most accurate information possible. No warranties, expressed or implied, are provided for the data herein, its use or interpretation. The assessment information is from the last certified taxroll. All data is subject to change before the next certified taxroll. PLEASE NOTE THAT THE PROPERTY APPRAISER MAPS ARE FOR ASSESSMENT PURPOSES ONLY NEITHER MAUI COUNTY NOR ITS EMPLOYEES ASSUME RESPONSIBILITY FOR ERRORS OR OMISSIONS ---THIS IS NOT A SURVEY---

Date printed: 03/29/19 : 21:07:17

REF-434

Recent Sales in Neighborhood Recent Sales in Area	Previous Parcel	Next Parcel	Return to Main Search Page	Maui Home

Owner and Parcel Information

Owner Name	LANAI RESORTS LLC Fee Owner LANAI SUSTAINABILITY RESEARCH, LLC Leasee Show All Owners and Addresses	**Today's Date**	March 29, 2019
Mailing Address	733 BISHOP ST, SUITE 2000 HONOLULU HI 96813	**Parcel Number**	490020610000
Location Address	KAUMALAPAU HWY	**Parcel Map**	Show Parcel Map
Neighborhood Code	4962-5	**Land Area**	16124.188 Acres
Legal Information		**Parcel Note**	

Generate Owner List By Radius

Assessment Information Show Historical Assessments

Year	Tax Class	Market Land Value	Agricultural Land Value	Assessed Land Value	Building Value	Total Assessed Value	Total Exemption Value	Total Net Taxable Value
2019	AGRICULTURAL	$ 8,324,400	$ 5,538,500	$ 5,538,500	$ 0	$ 5,538,500	$ 0	$ 5,538,500

Agricultural Assessment Information

Acres	Description	Assessed Value
90	DIVERS GD	$ 45,000
5166.188	HOME SITE	$ 5,037,000
10868	PASTUR	$ 456,456

This parcel has land in agricultural usage and therefore agricultural usage assessments have been made.

Current Tax Bill Information 2018 Tax Payments Show Historical Taxes

Tax Period	Description	Original Due Date	Taxes Assessment	Tax Credits	Net Tax	Penalty	Interest	Other	Amount Due

No Tax Information available on this parcel.

Commercial Improvement Information

Building Number	Building Type	Structure	Year Built	Eff Year Built	% Complete	Building Square Footage	Sketch	Value
1	LANAI GROWPONICS HEADHSE	COMMER FRAME C3	2018		0 %	0	Sketch Building 1	$ 0
Section	**Floor #**	**Area**	**Perimeter**	**Usage**	**Wall Height**	**Exterior Wall**	**Construction**	
1	01	8640	384		10	885		
		520		PORCH CEIL SHED ROOF				

Accessory Information

Building Number	Description	Dimensions/Units	Year Built	Percent Complete	Value

No accessory information associated with this parcel.

Sales Information

Sale Date	Price	Instrument #	Instrument Type	Valid Sale or Other Reason	Document Type	Record Date	Land Court #	Land Court Cert
07/23/2018	$ 0		Easements		Grant of easement	08/15/2018	T10453247	1044094
06/26/2015	$ 0		Land Court Order (all types)		Land Court Order (all types)	07/08/2015	T9312234	
09/27/2012	$ 0		Land Court Order (all types)		Land Court Order (all types)	10/02/2012	T8310375	
06/22/2012	$ 4,698,400		Fee conveyance		Warranty deed	06/22/2012	T8208437	1044094

Permit Information

Date	Permit Number	Reason	Permit Amount
08/31/2018	B20181040	New commercial bldg	$ 2,862,462
11/24/2017	B20171473	Retaining Wall	$ 35,000
11/24/2017	B20171472	New commercial bldg	$ 2,100,000
10/20/2017	B20171343	Other see notes	$ 217,100
10/20/2017	B20171342	Other see notes	$ 130,000
10/20/2017	B20171341	Other see notes	$ 575,400
10/20/2017	B20171340	Photovoltaic non com use	$ 156,200
10/20/2017	B20171339	Photovoltaic non com use	$ 156,200
10/20/2017	B20171338	Photovoltaic non com use	$ 156,200
10/20/2017	B20171337	Photovoltaic non com use	$ 156,200
10/20/2017	B20171336	Photovoltaic non com use	$ 156,200
10/20/2017	B20171335	Photovoltaic non com use	$ 156,200
05/01/2017	BX20170037	Water Tank	$ 0
05/01/2017	BX20170036	Green house	$ 0
05/01/2017	BX20170035	Green house	$ 0
05/01/2017	BX20170034	Green house	$ 0
05/01/2017	BX20170033	Green house	$ 0
05/01/2017	BX20170032	Green house	$ 0
05/01/2017	BX20170031	Green house	$ 0
05/01/2017	BX20170030	Green house	$ 0
05/01/2017	BX20170029	Green house	$ 0
05/01/2017	BX20170028	Green house	$ 0
05/01/2017	BX20170027	Green house	$ 0
05/16/2014	BX20140029	Farm bldg	$ 0
05/06/2014	BX20140027	Farm bldg	$ 0

Recent Sales in Neighborhood Recent Sales in Area	Previous Parcel	Next Parcel	Return to Main Search Page	Maui Home

The Maui County Tax Assessor's Office makes every effort to produce the most accurate information possible. No warranties, expressed or implied, are provided for the data herein, its use or interpretation. Website Updated: March 23, 2019

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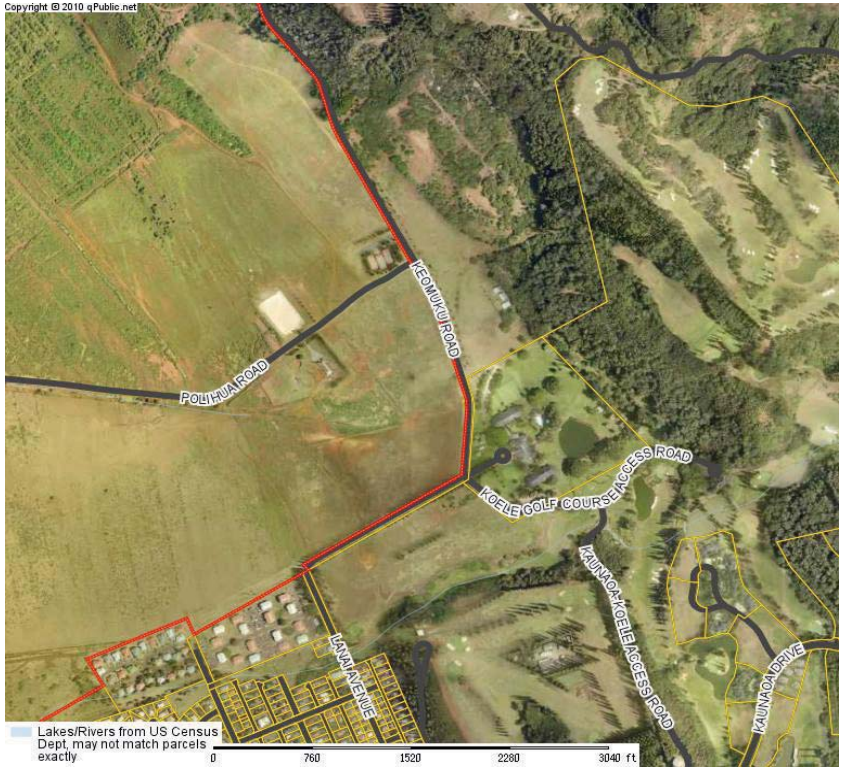
REF-435



Maui County Assessor			
Parcel: 490020610000 Acres: 16124.19			
Name:	LANAI RESORTS LLC	Land Value	$5,538,500.00
Site:	KAUMALAPAU HWY	Building Value	$0.00
Sale:		Misc Value	$0.00
Mail:	733 BISHOP ST, SUITE 2000 HONOLULU HI 96813 ,	Just Value	$0.00
		Assessed Value	$5,538,500.00
		Exempt Value	$0.00
		Taxable Value	$5,538,500.00

The Maui County Assessor's Office makes every effort to produce the most accurate information possible. No warranties, expressed or implied, are provided for the data herein, its use or interpretation. The assessment information is from the last certified taxroll. All data is subject to change before the next certified taxroll. PLEASE NOTE THAT THE PROPERTY APPRAISER MAPS ARE FOR ASSESSMENT PURPOSES ONLY NEITHER MAUI COUNTY NOR ITS EMPLOYEES ASSUME RESPONSIBILITY FOR ERRORS OR OMISSIONS ---THIS IS NOT A SURVEY---
Date printed: 03/29/19 : 20:46:26

SAFETY DATA SHEET

Date of issue/Date of revision 19 September 2019

Version 14.01

Section 1. Identification

Product name : BK41005 PPG PROLUXE 1 PRIMARY COAT RE WOOD FINISH TRANSPARENT SATIN EXTERIOR NATURAL OAK 005

Product code : 00366035

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Consumer applications, Professional applications.

Use of the substance/ mixture : Coating.

Uses advised against : Not applicable.

Manufacturer : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 or + 52 55 5559 1588 (Mexico)

Technical Phone Number : 1-800-441-9695 (8:00 am to 5:00 pm EST)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1B
TOXIC TO REPRODUCTION (Fertility) - Category 2
TOXIC TO REPRODUCTION (Unborn child) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS)) - Category 1
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 66.9% (Oral), 66.9% (Dermal), 91.5% (Inhalation)

GHS label elements

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Section 2. Hazards identification

Hazard pictograms :

Signal word : Danger

Hazard statements : Flammable liquid and vapor.
May cause an allergic skin reaction.
May cause cancer.
Suspected of damaging fertility or the unborn child.
May be fatal if swallowed and enters airways.
May cause drowsiness or dizziness.
Causes damage to organs through prolonged or repeated exposure. (central nervous system (CNS))

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.

Storage : Store locked up. Store in a well-ventilated place. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated. DANGER - RAGS, STEEL WOOL OR WASTE SOAKED WITH THIS PRODUCT MAY SPONTANEOUSLY CATCH FIRE IF IMPROPERLY DISCARDED. IMMEDIATELY AFTER EACH USE, PLACE RAGS, STEEL WOOL OR WASTE IN A SEALED WATER-FILLED METAL CONTAINER.

Hazards not otherwise classified : Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Product name : SIK41005 PPG PROLUXE 1 PRIMARY COAT RE WOOD FINISH TRANSPARENT SATIN EXTERIOR NATURAL OAK 005

Ingredient name	%	CAS number
Solvent naphtha (petroleum), medium aliph.	≥20 - ≤41	64742-88-7
Distillates (petroleum), hydrotreated light	≥1.0 - ≤5.0	64742-47-8
calcium bis(2-ethylhexanoate)	<1.0	136-51-6
2-butanone oxime	<1.0	96-29-7
cobalt bis(2-ethylhexanoate)	<1.0	136-52-7
ethylbenzene	<1.0	100-41-4

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact : Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : No specific data.

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Section 4. First aid measures

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Section 5. Fire-fighting measures

Specific hazards arising from the chemical : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon oxides
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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Section 6. Accidental release measures

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Special precautions : Ingestion of product or cured coating may be harmful. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials should be stored in purpose-built containers or in metal containers with tight-fitting, self-closing lids. Contaminated materials should be removed from the workplace at the end of each working day and be stored outside. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Do not store above the following temperature: 50°C (122°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Solvent naphtha (petroleum), medium aliph.	**ACGIH TLV (United States).** TWA: 400 ppm **OSHA PEL (United States, 5/2018).** TWA: 100 ppm 8 hours. TWA: 400 mg/m³ 8 hours.
Distillates (petroleum), hydrotreated light	**ACGIH TLV (United States, 3/2018).** **Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.
calcium bis(2-ethylhexanoate)	None.
2-butanone oxime	**IPEL (PPG).** TWA: 3 ppm STEL: 9 ppm
cobalt bis(2-ethylhexanoate)	**ACGIH TLV (United States, 3/2018).** TWA: 0.02 mg/m³, (as Co) 8 hours.
ethylbenzene	**ACGIH TLV (United States, 3/2018).** TWA: 20 ppm 8 hours. **OSHA PEL (United States, 5/2018).** TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours.

Key to abbreviations

A	=	Acceptable Maximum Peak	S	=	Potential skin absorption
ACGIH	=	American Conference of Governmental Industrial Hygienists.	SR	=	Respiratory sensitization
C	=	Ceiling Limit	SS	=	Skin sensitization
F	=	Fume	STEL	=	Short term Exposure limit values
IPEL	=	Internal Permissible Exposure Limit	TD	=	Total dust
OSHA	=	Occupational Safety and Health Administration.	TLV	=	Threshold Limit Value
R	=	Respirable	TWA	=	Time Weighted Average
Z	=	OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances			

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

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Section 8. Exposure controls/personal protection

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety glasses with side shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Gloves : butyl rubber

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.
Color : Brown.
Odor : Characteristic.
Odor threshold : Not available.
pH : Not available.
Melting point : Not available.
Boiling point : 157°C (314.6°F)
Flash point : Closed cup: 49°C (120.2°F)
Auto-ignition temperature : Not available.
Decomposition temperature : Not available.
Flammability (solid, gas) : Not available.

Section 9. Physical and chemical properties

Lower and upper explosive (flammable) limits : Not available.
Evaporation rate : 0.0015 (butyl acetate = 1)
Vapor pressure : 4.4 kPa (33.33 mm Hg) [room temperature]
Vapor density : Not available.
Relative density : 0.93
Density (lbs / gal) : 7.76
Solubility : Insoluble in the following materials: cold water.
Partition coefficient: n-octanol/water : Not available.
Viscosity : Kinematic (40°C (104°F)): <0.14 cm^2/s (<14 cSt)
Volatility : 34% (v/v), 28.735% (w/w)
% Solid. (w/w) : 71.265

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.

Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

Hazardous decomposition products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Solvent naphtha (petroleum), medium aliph.	LD50 Dermal	Rabbit	>3000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
2-butanone oxime	LD50 Oral	Rat	930 mg/kg	-
cobalt bis(2-ethylhexanoate)	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	3129 mg/kg	-
ethylbenzene	LC50 Inhalation Vapor	Rat	17.8 mg/l	4 hours
	LD50 Dermal	Rabbit	17.8 g/kg	-

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Section 11. Toxicological information

	LD50 Oral	Rat	3.5 g/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

Product/ingredient name	OSHA	IARC	NTP
cobalt bis(2-ethylhexanoate)	-	2B	Reasonably anticipated to be a human carcinogen.
ethylbenzene	-	2B	-

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4
NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen
OSHA: +
Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Solvent naphtha (petroleum), medium aliph.	Category 3	Not applicable.	Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Solvent naphtha (petroleum), medium aliph.	Category 1	Not determined	central nervous system (CNS)
ethylbenzene	Category 2	Not determined	hearing organs

Section 11. Toxicological information

Target organs : Contains material which causes damage to the following organs: brain, skin.
Contains material which may cause damage to the following organs: kidneys, upper respiratory tract, immune system, eyes, central nervous system (CNS).

Aspiration hazard

Name	Result
Solvent naphtha (petroleum), medium aliph.	ASPIRATION HAZARD - Category 1
Distillates (petroleum), hydrotreated light	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact : Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

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Section 11. Toxicological information

Conclusion/Summary : There are no data available on the mixture itself. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : Causes damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : Suspected of damaging fertility.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
SIK41005 PPG PROLUXE 1 PRIMARY COAT RE WOOD FINISH TRANSPARENT SATIN EXTERIOR NATURAL OAK 005	N/A	3516.5	N/A	N/A	N/A
Solvent naphtha (petroleum), medium aliph.	N/A	2500	N/A	N/A	N/A
2-butanone oxime	930	1100	N/A	N/A	N/A
cobalt bis(2-ethylhexanoate)	3129	N/A	N/A	N/A	N/A
ethylbenzene	3500	17800	N/A	17.8	1.5

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
ethylbenzene	Acute LC50 150 to 200 mg/l Fresh water	Fish	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Distillates (petroleum), hydrotreated light	-	-	Readily
ethylbenzene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Distillates (petroleum), hydrotreated light	-	159	low
2-butanone oxime	0.63	5.01	low
ethylbenzene	3.15	79.43	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

REF-442

14. Transport information

	DOT	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class (es)	3	3	3
Packing group	III	III	III
Environmental hazards	No.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	(Solvent naphtha (petroleum), medium aliph.)	Not applicable.
Product RQ (lbs)	22075.9	Not applicable.	Not applicable.
RQ substances	(xylene)	Not applicable.	Not applicable.

Additional information

DOT : This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials in package sizes less than the product reportable quantity.

IMDG : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : All components are listed or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Section 15. Regulatory information

Classification : FLAMMABLE LIQUIDS - Category 3
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1B
TOXIC TO REPRODUCTION (Fertility) - Category 2
TOXIC TO REPRODUCTION (Unborn child) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS)) - Category 1
ASPIRATION HAZARD - Category 1
HNOC - Defatting irritant

Composition/information on ingredients

Name	%	Classification
Solvent naphtha (petroleum), medium aliph.	≥20 - ≤41	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS)) - Category 1 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant
Distillates (petroleum), hydrotreated light	≥1.0 - ≤5.0	ASPIRATION HAZARD - Category 1
calcium bis(2-ethylhexanoate)	<1.0	SERIOUS EYE DAMAGE - Category 1 TOXIC TO REPRODUCTION (Unborn child) (oral) - Category 2
2-butanone oxime	<1.0	FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1B CARCINOGENICITY - Category 2
cobalt bis(2-ethylhexanoate)	<1.0	EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1A CARCINOGENICITY - Category 1B TOXIC TO REPRODUCTION (Fertility) - Category 2
ethylbenzene	<1.0	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) - Category 2 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant

SARA 313

Supplier notification :

Chemical name	CAS number	Concentration
cobalt bis(2-ethylhexanoate)	136-52-7	0.1 - 1
ethylbenzene	100-41-4	0.1 - 1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

REF-443

Section 15. Regulatory information

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

⚠ **WARNING**: Cancer - www.P65Warnings.ca.gov.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 2 * **Flammability** : 2 **Physical hazards** : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health : 2 **Flammability** : 2 **Instability** : 0

Date of previous issue : **9/6/2019**

Organization that prepared the MSDS : EHS

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

TRC

Appendix G:
TRC Staff and Environmental Professional Qualifications/Resumes

REF-444

RONALD A. LANDOLT, CAC

EDUCATION
B.A., Biology/Environmental Management, Concordia University, 2002

PROFESSIONAL REGISTRATIONS/CERTIFICATIONS

- State of California, Department of Occupational Safety and Health, Certified Asbestos Consultant, #10-4597
- State of California, Department of Public Health, Certified Lead Inspector/Assessor, #24276.
- State of Hawaii, Department of Health, Certified Asbestos Inspector, #HIASB-2677.
- State of Colorado, Department of Public Health and Environment, Air Pollution Control Division, Asbestos Building Inspector #12383.
- State of Utah, Department of Environmental Quality, Certified Asbestos Inspector, #ASB-5156.

AREAS OF EXPERTISE
Mr. Ronald A. Landolt, CAC, has project management and technical experience in the following general areas:

- Client Development, Management and Interaction
- Write and Edit Technical Reports for Clients and Regulatory Agencies
- Soil and Groundwater Sampling and Remediation System Implementation
- Spill Prevention Control and Countermeasure (SPCC) Plan Management
- Stormwater Pollution Control Plan (SWPCP) Development & Management
- Indoor Air Quality and Microbial Assessments and Remediation Design
- Fire Damage/Soot Investigations and Testing Services
- Asbestos & Lead Paint Surveys, Abatement Project Design and Oversight
- AHERA Management Plan Review and Development
- Poly-Chlorinated Biphenyl and Mercury Investigations
- Stormwater Regulatory Compliance and Plan Development
- Phase I and Phase II Environmental Site Assessments and Audits
- Property Condition Assessments
- 3rd Party QAQC Inspections
- Construction Management and Loan Reviews

REPRESENTATIVE EXPERIENCE
Mr. Landolt has over 16 years of experience and progressive responsibility in environmental and engineering consulting. His qualifications include extensive hands-on planning, health and safety management, field investigation, design, permitting, cost estimating, project management, and client management. Mr. Landolt's background includes extensive service to public and private-sector clientele including JP Morgan Chase, Sunstone Hotel Investors, Wyndham Resorts, Rite Aid, AIMCO, Wal-Mart, Farmers Insurance, State Farm, Austin Energy, UPRR, BNSF, Shorenstein Realty Services, Deering Property Management, Gresham Barlow School District, Beaverton School District, North Wasco County School District, and Salem-Keizer School District.

Mr. Landolt currently serves in the capacity of NW Region Practice Leader for TRC with responsibility for the business development, proposal and contract document writing and review to initiate projects, track project status and input critical data associated with each project, monitor the work performed by field staff and subcontractors and analyze the data acquired to determine further action with respect to regulatory compliance or industry standards while maintaining strict deadlines. Mr. Landolt is also responsible for management of financial budgets set forth in the specific contract documents from initial development, tracking labor and additional costs through the project until contract completion and final invoicing.

PROPERTY DUE DILIGENCE EXPERIENCE

Various Clients, Environmental Site Assessments – Throughout the United States (Project Manager/Regional Service Line Manager: 2001 – Present)
Performs, reviews and manages ASTM Phase I ESAs as an Environmental Professional for various clients including industrial properties, commercial/retail properties, hotel properties, residential properties, and vacant parcels of land. Responsibilities included proposal and budget preparation, proposal review, client interaction, record review, site reconnaissance, interviews, report preparation, limited sampling, report review and submittals.

Various Clients, Property Condition Assessments – Throughout the United States (Project Manager/Service Line Manager: 2005 – Present)
Performs and manages ASTM PCA's for various clients including high-rise buildings, hotel properties, industrial properties, commercial properties, retail properties and multi-family residential facilities. Responsibilities included proposal and budget preparation, proposal review, client interaction, record review, site reconnaissance, interviews, report preparation, report review and submittals.

SPECIALIZED TRAINING

- EPA AHERA-Accredited Building Inspector, Management Planner, Project Designer, and Contractor Supervisor
- OSHA 10-Hour Construction Safety Training
- 40-Hour Hazardous Waste Operations and Emergency Response (HAZWOPER)
- OSHA Confined Space Training
- NIOSH 582 Trained Microscopist
- DOT & IATA Department of Transportation's Hazardous Materials' Regulations Certification
- Hazardous/Toxic Waste Management Training
- 16-Hour Microbial Investigations, Assessments and Remediation Training

EXPERT TESTIMONY
Provided deposition testimony associated with property due diligence services on behalf of First American Financial Corporation in a case involving financial responsibility in the matter of LAX Enterprises vs. First American Financial Corporation, August 2013.

Kacey N. Swindle

EDUCATION
B.A., Biology, Hendrix College, 2006
A.A., Education, Central Baptist College, 2003

PROFESSIONAL REGISTRATIONS/CERTIFICATIONS
EPA/AHERA (HIASB-3378) Accredited Asbestos Inspector - Hawaii
EPA/AHERA (HIASB-3378) Accredited Asbestos Contractor/Supervisor - Hawaii
EPA/AHERA (HIASB-3378) Accredited Asbestos Project Monitor – Hawaii
EPA (PB-0509) Certified Lead Inspector – Hawaii
NIOSH 582 Equivalent Sampling and Evaluating Airborne Asbestos Dust

AREAS OF EXPERTISE
Ms. Kacey N. Swindle has technical experience in the following general areas:

- Environmental Assessments and Audits
- Site Remediation Design and Implementation
- Asbestos Surveys
- Hazardous Material Surveys
- Microbial Investigations
- Lead Based Paint Inspections
- OSHA Compliance

REPRESENTATIVE EXPERIENCE
Ms. Swindle's responsibilities include large and small scale asbestos and lead (Pb) inspections for private, public, commercial and governmental agencies, air monitoring and compliance certification. Ms. Swindle is a certified lead inspector, AHERA inspector, contractor / supervisor, and project monitor.

In addition to asbestos and lead consulting, Ms. Swindle is also proficient in industrial hygiene air monitoring exposure and evaluations, including OSHA compliance and safety program development, as well as indoor air quality studies. Ms. Swindle has performed microbial investigations on multi-family residential and commercial structures. The investigations have encompassed microbial sampling, moisture mapping, project design, and coordination with company senior-level scientists (Ph.D.s, C.I.H.s). Ms. Swindle also performs microbial remediation oversight and post-remediation sampling. She is knowledgeable of construction practices, means, and methods. Ms. Swindle has performed Phase I Environmental Site Assessments including conducting site visits and generating reports.

ASBESTOS ASSESSMENTS

Highgate, Pacific Beach Hotel and Retail Spaces Asbestos Surveys and Abatement Oversight - Honolulu, Hawaii (2014 - 2017)
Performed asbestos inspections prior to proposed renovation activities. The investigation included sample collection, analysis, square footage estimates and friability status to determine if the materials pose a health risk to workers and the general public. Written reports were issued to the client detailing laboratory findings with regulatory recommendations including health risk assessment. Oversight activities included daily asbestos air monitoring, clearance inspections and waste disposal characterizations and laboratory data interpretation to ensure that human health was protected.

Moana Surfrider Hotel Asbestos Surveys and Abatement Oversight - Honolulu, Hawaii (2012 - Present)
Performed asbestos inspections and asbestos remediation oversight of during renovation activities. The investigation included sample collection, analysis, square footage estimates and friability status to determine if the materials pose a health risk to workers and the general public. Written reports were issued to the client detailing laboratory findings with regulatory recommendations including health risk assessment. Oversight activities included daily asbestos air monitoring, clearance inspections and waste disposal characterizations and laboratory data interpretation to ensure that human health was protected.

Lanai Resorts, LLC, Asbestos Surveys – Lanai, Hawaii (2014 - Present)
Performed asbestos inspections prior to proposed renovation activities for various properties located on the island of Lanai. The investigations included sample collection, analysis, square footage estimates and friability status to determine if the materials pose a health risk to workers and the general public. Written reports were issued to the client detailing laboratory findings with regulatory recommendations including health risk assessment.

Kyo-Ya, Ltd., Sheraton Waikiki Hotel Asbestos/Lead Paint Surveys - Honolulu, Hawaii (2011 – 2013, 2017)
Performed asbestos/lead paint inspections and asbestos remediation oversight during renovation activities. The investigation included sample collection, analysis, square footage estimates and friability status to determine if the materials pose a health risk to workers and the general public. Written reports were issued to the client detailing laboratory findings with regulatory recommendations including health risk assessment. Oversight activities included daily asbestos air monitoring, clearance inspections and waste disposal characterizations and laboratory data interpretation to ensure that human health was protected.

Kyo-Ya, Ltd., Princess Kaiulani Hotel and Retail Spaces Asbestos Surveys - Honolulu, Hawaii (2013 - 2014)
Performed asbestos inspections prior to proposed renovation activities. The investigation included sample collection, analysis, square footage estimates and friability status to determine if the materials pose a health risk to workers and the general public. Written reports were issued to the client detailing laboratory findings with regulatory recommendations including health risk assessment.

Hawaii Pacific University, Aloha Tower Marketplace Asbestos/Lead Paint Surveys - Honolulu, Hawaii (2013 - 2014)
Performed asbestos/lead paint inspections prior to proposed renovation activities. The investigation included sample collection, analysis, square footage estimates and friability status to determine if the materials pose a health risk to workers and the general public. Written reports were issued to the client detailing laboratory findings with regulatory recommendations including health risk assessment.

General Growth Properties, Sears Asbestos/Lead Paint Surveys and Abatement Oversight - Honolulu, Hawaii (2012 - 2013)
Performed asbestos/lead paint inspections and asbestos abatement oversight during demolition activities. The investigation included sample collection, analysis, square footage estimates and friability status to determine if the materials pose a health risk to workers and the general public. Written reports were issued to the client detailing laboratory findings with regulatory recommendations including health risk assessment. Oversight activities included daily asbestos air monitoring, clearance inspections and waste disposal characterizations and laboratory data interpretation to ensure that human health was protected.

Hilton Hawaiian Village, LLC, Hilton Hawaiian Village Asbestos/Lead Paint Surveys - Honolulu, Hawaii (2011 - 2013)
Performed asbestos/lead paint inspections and asbestos remediation oversight during renovation activities. The investigation included sample collection, analysis, square footage estimates and friability status to determine if the materials pose a health risk to workers and the general public. Written reports were issued to the client detailing laboratory findings with regulatory recommendations including health risk assessment. Oversight activities included daily asbestos air monitoring, clearance inspections and waste disposal characterizations and laboratory data interpretation to ensure that human health was protected.

TRC Kacey N. Swindle

LEAD BASED PAINT ASSESSMENTS

Ala Wai Townhouse AOAO, Ala Wai Townhouse Lead Based Paint Inspection - Honolulu, Hawaii (2012)
Performed a lead based paint inspection of the above referenced residential building consisting of one hundred (100) similar dwellings as defined by the State of Hawaii, Environmental Protection Agency (EPA) and United States Department of Housing and Urban Development. A written report was issued to the client detailing findings with regulatory recommendations.

PHASE I ENVIRONMENTAL SITE ASSESSMENTS

Lanai Resorts, LLC, Phase I Environmental Site Assessments – Lanai City, Hawaii (2014 – Present)
Performed Phase I Environmental Site Assessments for the development of various properties within Lanai City, HI. Responsibilities included conducting the site investigations and report generation.

Appendix H:
Environmental Professional Statement

DEFINITION OF ENVIRONMENTAL PROFESSIONAL AND RELEVANT EXPERIENCE THERETO PURSUANT TO 40 CFR 312

(1) a person who possesses sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions and conclusions regarding conditions indicative of releases or threatened releases (see §312.1[c]) on, at, in, or to a property, sufficient to meet the objectives and performance factors in §312.20(e) and (f).

(2) Such a person must: (i) hold a current Professional Engineer's or Professional Geologist's license or registration from a state, tribe, or U.S. territory (or the Commonwealth of Puerto Rico) and have the equivalent of 3 years of full-time relevant experience; or (ii) be licensed or certified by the federal government, a state, tribe, or U.S. territory (or the Commonwealth of Puerto Rico) to perform environmental inquiries as defined in §312.21 and have the equivalent of 3 years of full-time relevant experience; or (iii) have a Baccalaureate or higher degree from an accredited institution of higher education in a discipline of engineering or science and the equivalent of 5 years of full-time relevant experience; or (iv) have the equivalent of 10 years of full-time relevant experience.

(3) An environmental professional should remain current in his or her field through participation in continuing education or other activities.

(4) The definition of environmental professional provided above does not preempt state professional licensing or registration requirements such as those for a professional geologist, engineer, or site remediation professional. Before commencing work, a person should determine the applicability of state professional licensing or registration laws to the activities to be undertaken as part of the inquiry identified in §312.21(b).

(5) A person who does not qualify as an environmental professional under the foregoing definition may assist in the conduct of all appropriate inquiries in accordance with this part if such person is under the supervision or responsible charge of a person meeting the definition of an environmental professional provided above when conducting such activities.

Relevant experience, as used in the definition of environmental professional in this section, means: participation in the performance of all appropriate inquiries investigations, environmental site assessments, or other site investigations that may include environmental analyses, investigations, and remediation which involve the understanding of surface and subsurface environmental conditions and the processes used to evaluate these conditions and for which professional judgment was used to develop opinions regarding conditions indicative of releases or threatened releases (see §312.1[c]) to the Site. TRC personnel resume(s) are included in **Appendix G**.

I declare that, to the best of my professional knowledge and belief, I meet the definition of environmental professional as defined in §312.10 of 40 CFR 312.

I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Signature of Environmental Professional: _____ Date: 10/28/19

REF-448

APPENDIX

SOCIO-ECONOMIC IMPACT REPORT

H

REF-449

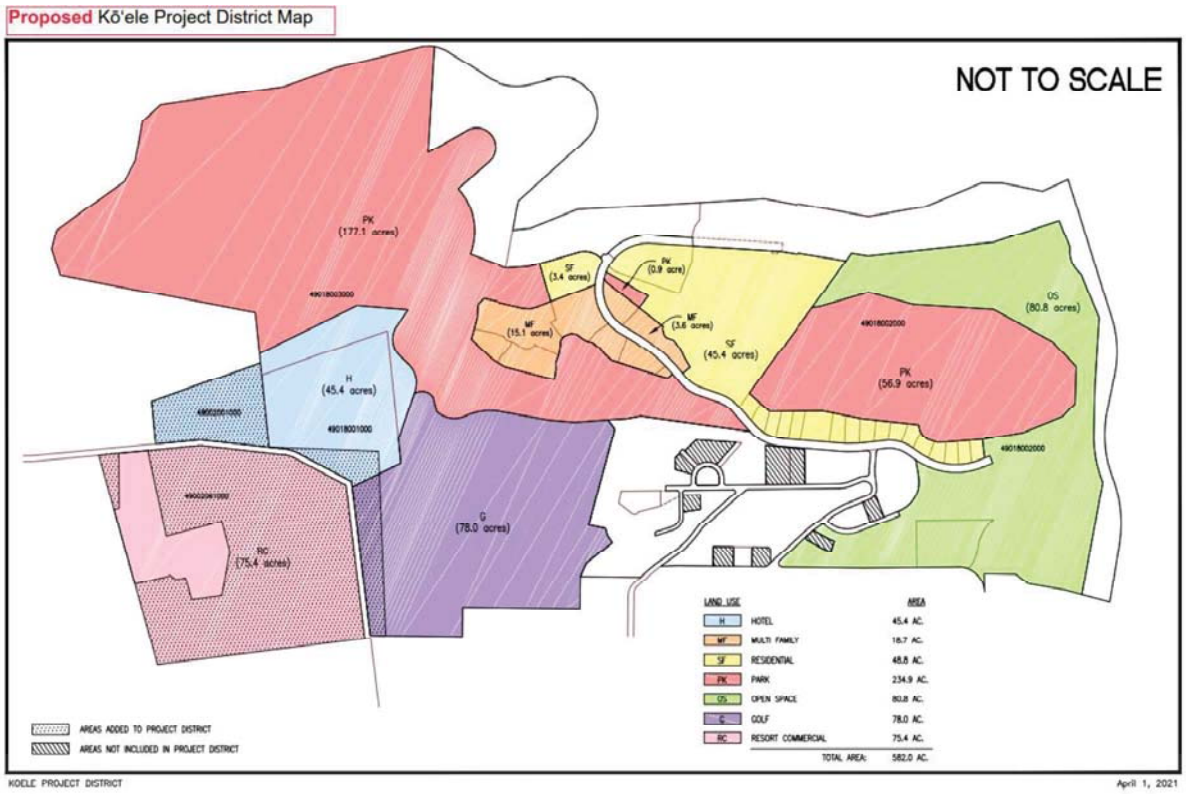
April 6, 2021

We were originally contracted to complete a Socio-Economic Conditions, Economic, Population and Fiscal Impacts Study for the draft Environmental Assessment for the Kōʻele Project District Amendment.

An inconsistency between MCC Chapter 19.71.080 and Ordinance 1581, 2140, and 2852 was identified by Pūlama Lānaʻi while finalizing their application. A non-contiguous 14.5 acre parcel (TMK: [2] 4-9-002:061 (portion)) is zoned "Project District" in Ordinance 2852, however, no subdistrict designation is assigned to the 14.5 acres in Ordinance 2852. Furthermore, there is no record of the 14.5 acres in Ordinance 1581, Ordinance 2140, and MCC Chapter 19.71.080, where the subdistricts are identified by the number of acres.

Pūlama Lānaʻi has incorporated this 14.5 acre section (identified as "Stables & Tennis Courts" in CIZ Map 2615) into the Proposed Kōʻele Project District Map, it was not identified in earlier maps provided to our firm.

We attest that the results of our technical study, *Kōʻele Project District, Proposed Revisions: Socio-Economic Conditions, Economic, Population and Fiscal Impacts*, do not change based on the updated map.



Signed

Bruce S. Plasch
Bruce S. Plasch (Apr 7, 2021 10:42 HST)

Bruce Plasch, Ph.D.
President
Plasch Econ Pacific, LLC

REF-450

Kō‘ele Project District, Proposed Revisions:
• Socio-Economic Conditions
• Economic, Population and Fiscal Impacts

Kō‘ele Project District, Proposed Revisions:
• Socio-Economic Conditions
• Economic, Population and Fiscal Impacts

PREPARED FOR:

Pūlama Lāna‘i

PREPARED BY:

Plasch Econ Pacific LLC

March 2021

REF-451

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EXECUTIVE SUMMARY

1. PROJECT DESCRIPTION

Pūlama Lānaʻi proposes revisions (the **Project**) to the existing Kōʻele Project District (the **Existing PD** and the **Proposed PD**) in the Kōʻele area on the island of Lānaʻi, Hawaiʻi. The Existing PD encompasses the area known as Kōʻele Resort (the **Resort**), which includes the former Kōʻele Lodge (the **Lodge** or **Hotel**), resort homes,[1] staff homes,[2] two golf courses, parks and open space.

a. Recent Upgrades and Changes to the Resort

Kōʻele Lodge struggled economically since its inception in 1990, and failed to attract sufficient visitors and home buyers for profitability. In order to address this situation, Pūlama Lānaʻi closed the Lodge and the Resort golf course in 2015, and invested $75 million to refresh the Resort. It was reopened November 1, 2019 as the Four Seasons Hotel Lānaʻi at Kōʻele, A Sensei Retreat (the **Retreat**). Four Seasons Hotels and Sensei partnered to focus exclusively on an all-inclusive wellness retreat with programs tailored to luxury travelers. The Retreat offers a combination of unmatched hospitality, nutritious upscale dining, and health experts found nowhere else in the world

b. Land Use

The **Existing PD** consists of approximately 618 acres. Under the **Proposed PD**, the area would be reduced to 561.8 acres by removing 131.9 acres and adding 75.7 acres. Also the Proposed PD would result in major land-use changes:

- Hotel: increased from 21.1 acres to 43.4 acres.
- Residential: decreased from 214 acres to 48.8 acres, with most of the decreased acreage being converted to Park, Open Space, or dropped from the Proposed PD.
- Multi-Family Residential: decreased from 26 acres to 18.7 acres.
- Resort Commercial: 57.2 acres added.
- Golf: decreased from from 332.4 acres to 78 acres, with most of the decreased acreage being converted to Park, Open Space, or dropped from the Proposed PD.

1. **Resort** homes are the high-quality individually-owned homes located within the Resort, but exclude **staff** homes.
2. **Staff** homes are the high-quality homes located within the Resort that are owned by the Resort and rented to senior managers.

REF-453

— Park: increased from 11.5 acres to 234.9 acres.
— Open-Space: increased from 12 acres to 80.8 acres.
— Public: decreased from 1 acre to 0 acre.

c. Resort Components

2019 Resort Components

In **2019**, major components of the Resort included 96 hotel rooms, 18 resort sf (**sf**) homes, 33 resort multi-family (**mf**) homes, and the 9-hole community golf course.

Existing PD, Resort Components at Full Development

Under the **Existing PD**, full development of the Resort would have resulted in 253 hotel rooms, 535 resort sf homes, 156 resort mf homes, a reopened 18-hole Resort golf course, and continued operation of the 9-hole community golf course. However, as mentioned above, the market does not support the development as originally planned.

Proposed PD, Resort Components at Full Development

Under the **Proposed PD**, full development of the Resort would result in (1) a modest increase in development compared to 2019, and (2) a major reduction in development compared to full development under the Existing PD. The revised plan for the Resort features 96 hotel rooms (no change from 2019), 57 resort sf homes (an increase of 39 homes from 2019), 33 resort mf homes (no change from 2019), the addition of 20 staff mf homes, continued operation of the 9-hole community golf course, and 30,000 square feet of new commercial space. Depending on future market conditions, the hotel rooms could be increased to a number to be determined.

The 20 mf homes would be built and rented to Resort staff. Although these homes are designated multi-family, they could be single-family.

As indicated above, the Proposed PD would add 57.2 acres of Resort Commercial. Of this, 55 acres are part of the 215-acre Stables at Kōʻele (the **Stables**). The Stables would remain at its current location, although it would lose 2 acres which would be used for commercial buildings.

The Resort Commercial designation would allow the Resort to occasionally use a portion of the land used by the Stables. Events would occur about eight times a year, and would be open-air and/or under tents. In addition, two historic buildings would be relocated to the area, and converted to a museum and a retail shop. A third building may be constructed, resulting in a total of about 30,000 square feet of commercial space (about 2 acres with parking and landscaping). The commercial operations would be compatible with the Stables and the Resort.

2. SOCIO-ECONOMIC CONDITIONS

Between 2013 and 2017, the island of Lānaʻi had a resident population of approximately 3,203 residents, representing 1.95% of the County of Maui (the **County**) population. With an average household size of 2.57 people per household, this was slightly smaller than households in the County as a whole. The mean household income on Lānaʻi was estimated at $67,944—38.3% lower than the County as a whole. An estimated 53.4% of Lānaʻi residents attended some college or received a college degree. An estimated 68.9% of residents spoke only English at home.

3. SUMMARY OF MAJOR ECONOMIC AND DEMOGRAPHIC IMPACTS

The primary economic and demographic impacts of Resort development and operations are as follows:

— Resort Development
- **Proposed PD**, Development Activities
  + An average of about 70 construction jobs and indirect jobs generated by construction activity over a period of about 10 years.
  + Cumulative State tax revenues of about $8.6 million generated by construction activity.

— Resort Operations
- **2019** Resort Operations
  + About 40 direct and indirect jobs generated by Resort operations, with about 36 jobs on Lānaʻi (the counts were low because they reflect Resort conditions before the Hotel was reopened).
  + An average daily Resort population of about 100 residents.
  + About $260,000 in State tax revenues generated by Resort operations.
  + About $830,000 million in County property tax revenues, assuming current property-tax rates.
- **Proposed PD**, Resort Operations at Full Development
  + About 630 direct and indirect jobs generated by Resort operations, with about 570 jobs on Lānaʻi.
  + An average daily Resort population of about 280 visitors, residents, and part-time residents.
  + About $14.7 million per year in State tax revenues generated by Resort operations, of which about $12.9 million would be available to fund various services and programs throughout Hawaiʻi.
  + About $2.4 million per year in County property tax revenues from the Resort, nearly all of which would be available to fund various services and programs throughout the County.

Kōʻele Project District, Proposed Revisions:
• Socio-Economic Conditions
• Economic, Population, and Fiscal Impacts

Part I: Introduction and Proposed Project

1. Introduction

a. Content and Purpose

Pūlama Lānaʻi proposes revisions (the **Project**) to the existing Kōʻele Project District (the **Existing PD** and the **Proposed PD**) in the Kōʻele area on the island of Lānaʻi, Hawaiʻi. The Existing PD encompasses the area known as Kōʻele Resort (the **Resort**), which includes the former Kōʻele Lodge (the **Lodge** or **Hotel**), Resort homes, two golf courses, parks and open space.

This report addresses (1) the socio-economic conditions on Lānaʻi, and (2) the economic, population and fiscal impacts of the Resort. Impacts are estimated for (1) 2019 Resort operations, and (2) future development and operations assuming full development under the **Proposed PD** revisions. The purpose is to provide the community, State of Hawaiʻi (**State**) officials and County of Maui (**County**) officials with relevant information about planned development and operations.

Socio-economic conditions includes information about the population, housing, incomes, education, economic activities, employment and labor force on Lānaʻi.

Economic impacts cover expenditures and sales, profits, employment and payroll related to (1) construction and related activities, and (2) operations of the Resort.

Population impacts cover the number of visitors, residents and part-time residents, along with the number of homes required to house the families supported by jobs created by the development and operations.

Fiscal impacts address the impact of the Project on State and County revenues and expenditures.

b. Methodology

Socio-Economic Conditions

Demographic, social, household and economic characteristics of the population were obtained from the 2010 census by the U.S. Census Bureau, and from the American Community Survey ("**ACS**") for 2013-2017. The ACS is an ongoing survey that provides up-to-date information about the nation's population. The ACS includes questions that were not included in the 2010 decennial census (but, historically, were included in the 2000 census). The most up-to-date available data from the ACS are five-year estimates from 2013-2017.

Economic and Fiscal Impacts

Multipliers

The proposed development and operations are translated into economic and fiscal impacts based on a number of multipliers (for example, indirect sales as a percentage of direct sales, construction jobs per $1 million in expenditures, indirect jobs per direct jobs, and tax rates). These multipliers reflect the professional judgment of the consultant, and were derived based on information from the following sources: U.S. Census data; the *State of Hawai'i Data Book; The Hawai'i State Input-Output Study: 2012 Benchmark Report* (I-O Model); employment and labor rates from DLIR; State and County tax rates.

Direct and Indirect Impacts

"**Direct**" economic impacts (gross sales, employment, payroll, etc.) are the immediate effects of a change in a particular sector of the economy. Traditionally, "indirect" impacts are changes in other sectors of the economy that are caused by the direct impacts, but exclude impacts related to the purchase of goods and services by employees and their families (**household spending**). Traditionally, "induced" impacts are changes in the economy that are caused by the household spending by those who are affected by the direct and indirect changes in the economy. In this report, "**indirect**" economic impacts are redefined broadly to include both the traditional indirect economic impacts and the induced economic impacts.

2019 Dollars

For the economic and fiscal impacts (Part III), dollar amounts are expressed in terms of 2019 purchasing power and market conditions. The year 2019 was used because it is the last year of "normal" economic conditions before COVID-19. Values, prices, costs and dollar amounts for prior years are adjusted for inflation to 2019 dollars based on the Honolulu Consumer Price Index (CPI) for Urban Consumers. Dollar amounts after 2019 are not increased to account for inflation, appreciation in property values, changes in labor rates, changes in building costs, or other changes in market conditions. However, fiscal impacts are based on current tax rates (i.e., March 2021 rates).

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Accuracy of Estimates

Much of the analysis contained in this report is quantitative in nature, where numbers are used to help communicate anticipated impacts. However, these numbers should not be interpreted as precise predictions. Rather, they represent the best estimates of what is expected to occur based on available information about planned development and operations, market conditions, and tax rates.

c. Organization of the Report

The report is divided into three Parts:

— Part I: Introduction and Proposed Project
— Part II: Socio-Economic Conditions
— Part III: Economic, Population and Fiscal Impacts

All Figures in this report are embedded in the text, while all tables are at the end of the report. Socio-economic conditions for Lāna‘i and the County are presented in Tables II-1 and II-2. Economic, population and fiscal impacts are presented in Tables III-1 to III-5. In these tables, the quantities appearing in **bold** highlight the more significant impacts.

d. Economic Consultant

The analysis was conducted by Plasch Econ Pacific LLC, a Hawai'i-based economic-consulting firm specializing in economic development, land and housing economics, feasibility studies, valuations, market analysis, public policy analysis, and the economic and fiscal impacts of projects.

2. Project Overview

a. Project Location

As shown in **Figure I-1**, the Project Area is situated northeast of Lāna‘i City.

b. Project Description

The **Existing PD** consists of approximately 618 acres (see Figure I-2). Under the **Proposed PD**, the area would be reduced to 561.8 acres by removing 131.9 acres and adding 75.7 acres (see Figure I-3). Also the **Proposed PD** would result in major land-use changes. Further details are given in Part III, Section 1.

c. Land Classifications and Required Approvals

Current land classifications of the Project Area and proposed changes are as follows:

— State Districts
- Current: Agricultural, Urban and Rural
- Proposed: Urban

— County Designations
- Lāna‘i Community Plan
  + Current: Project District, Single-Family Residential, Agricultural, Rural and Park/Open Space
  + Proposed: Project District, Single-Family Residential and Open Space
- Maui County Zoning
  + Current: Project District, R-3 Residential, Interim, Agriculture and Road
  + Proposed: Project District, R-3 Residential and Road

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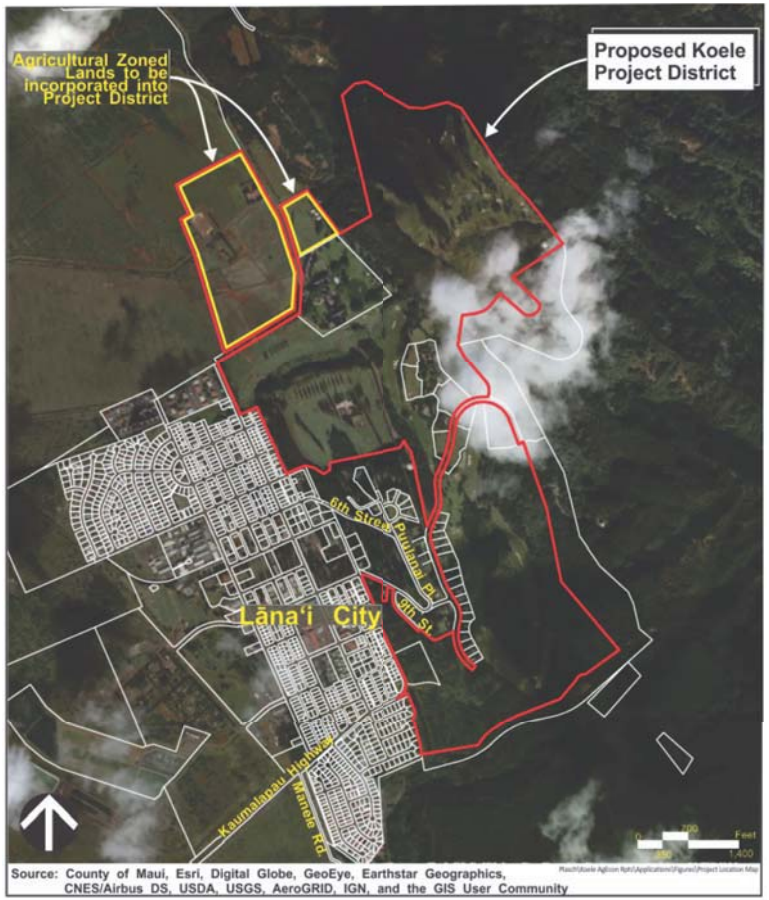

Figure I-1. Project Location

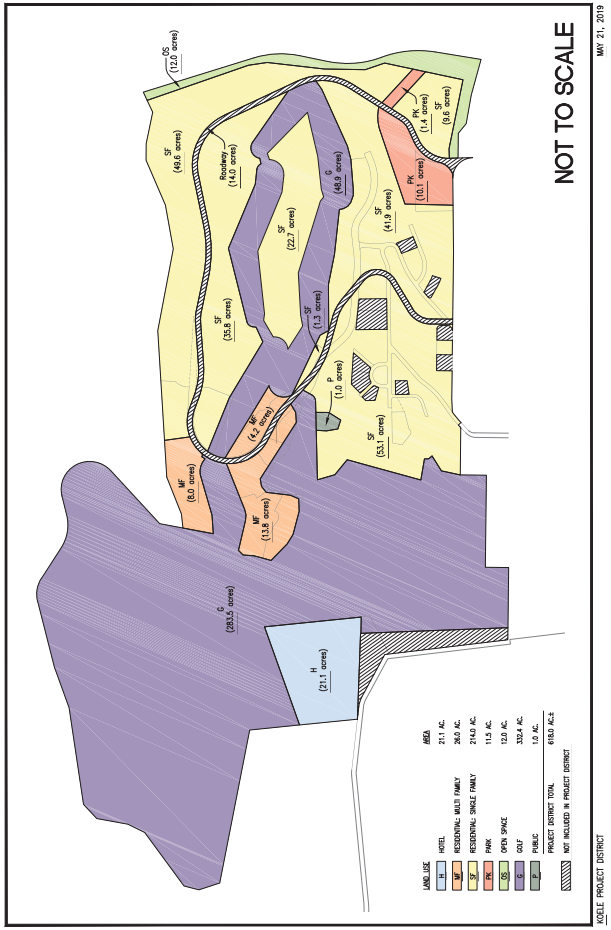

Figure I-2. Existing Kō'ele Project District Map

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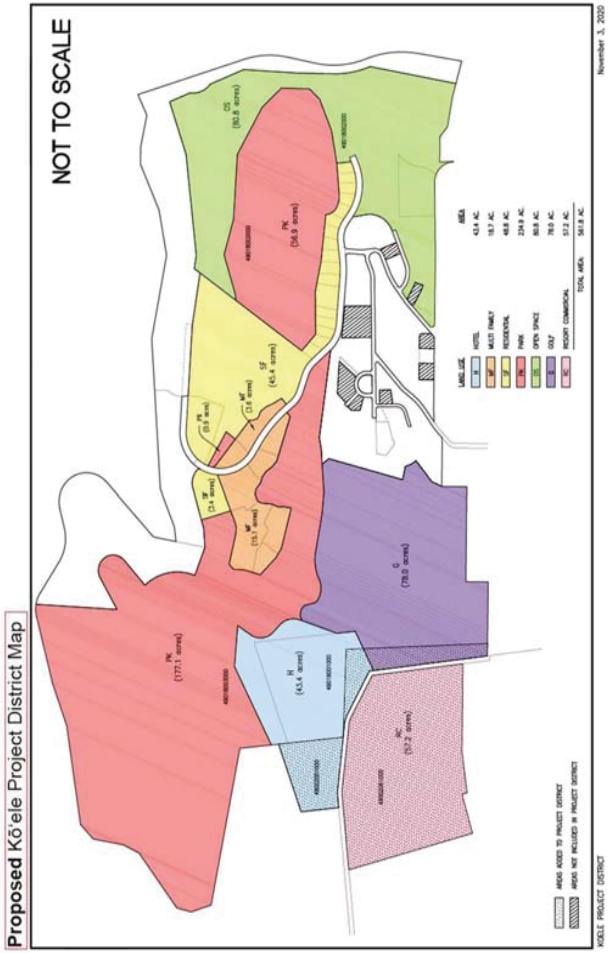

Figure I-3. Proposed Kō‘ele Project District Map

Part II: Socio-Economic Conditions

1. Socio-Economic Conditions, County of Maui

Tables II-1 and II-2 summarize socio-economic conditions for the County, as well as Lāna‘i which is discussed in the next section. The County of Maui consists of the islands of Maui, Lāna‘i, Moloka‘i, Kaho‘olawe, and Molokini. Except where stated otherwise, the estimates below were reported by the American Community Survey for 2013 and 2017.

a. Population

According to the 2018 Maui County Data Book, the 2018 population of the County was 166,260 residents. Between 2013 and 2017, the County population was about 164,094 residents—up 6.0% since 2010 (see Table II-1). Residents include those who live full-time or permanently in the County, and exclude visitors and part-time residents (i.e., those who live most of the time in a primary home located elsewhere).

The total County population amounted to approximately 11.5% of the State population between 2013 and 2017—the second smallest of the four counties.

b. Population Characteristics and Distribution

The County population is racially diverse (see Table II-1). Between 2013 and 2017, white residents comprised 35.5% of the population, Asians 29.0%, those of two or more races 23.0%, and Native Hawaiian and Other Pacific Islanders 10.7%.

Maui County residents are aging. Their median age in 2010 was 39.6 years, and increased to 40.9 years by 2017. This comports with national demographic trends.

c. Households

Between 2013 and 2017, the average household size of the County was estimated at 2.97 residents—an increased since 2010 (see Table II-1). Approximately 59.3% of the households were estimated to be homeowners. Also, an estimated 68.5% of the households were family households.

d. Housing

Between 2013 and 2017, the County had an estimated 72,093 housing units—up 2.4% from 2010 (see Table 1). This figure includes resort/residential units that were used as

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second homes, or were available for visitors, or were vacant. Approximately 24.6% of housing units were vacant. In the 2010 Census, 23.4% were vacant, including 14.1% that were for seasonal, recreational, or occasional use.

e. Income and Education

Table II-2 provides information on income levels and education for the residents of the County. The mean household income between 2013 and 2017 was estimated to be $93,964. An estimated 92.2% of the residents of the County were estimated to have high a school degree or higher between 2013 and 2017. About 77.6% of the residents in the County speak only English at home, comparable to 2010 figures.

2. Socio-Economic Conditions, Lāna‘i

a. Population and Distribution

Between 2013 and 2017, Lāna‘i had a resident population of approximately 3,203, or 1.95% of the County population. The population on Lāna‘i grew at a slightly slower rate than the County as a whole, increasing by 2.2% from 3,135 residents in 2010 (see Table II-1). The Lāna‘i Community Plan, which was updated and approved by the Maui County Council in 2016, notes that an additional 885 residents are forecasted to live on the island by the year 2030, for a total population of 4,020 (based on the County's Land Use Forecast produced in December 2012).

Between 2013 and 2017, Asian residents comprised a higher proportion of the Lāna‘i population compared to the County as a whole: 54.1% of residents were estimated to be Asians compared to 29.0% for the County (Table II-1).

The resident profile of Lāna‘i is older than that of the County as a whole. The median age on Lāna‘i was about 46.3 years old between 2013 and 2017 compared to 40.9 years for the County.

b. Households

The average household size on Lāna‘i is estimated to be 2.57 people per household between 2013 and 2017—a slight decrease from 2.71 people per household in 2010 (Table II-1). On average, households on Lāna‘i are slightly smaller than households for the County —2.97 people per household.

c. Housing

Between 2013 and 2017, Lāna‘i had an estimated 1,561 housing units (Table II-1). Approximately 20.2% of housing units were vacant, compared to 24.6% for the County.

d. Income and Education

The mean household income on Lāna‘i between 2013 and 2017 was estimated at $67,944, 38.3% lower than the County as a whole (Table II-2). Correspondingly, Lāna‘i had a lower per-capita income.

A slightly lower proportion of residents on Lāna‘i completed some secondary education compared to the island as a whole. An estimated 53.4% of Lāna‘i residents attended some college or received a higher education degree, compared to 60.7% of the residents for the County. About 68.9% of the households spoke only English at home, while 31.1% spoke Asian and Pacific Island languages.

Part III: Economic, Population and Fiscal Impacts

1. Project Land Use and Components

Discussed below are recent upgrades and changes to the Resort, designated land uses in the Project District, and major components of the Resort. The last two items are summarized in Table III-1.

a. Recent Upgrades and Changes to the Resort

Past Market Problems

Kō‘ele Lodge struggled economically since its inception in 1990, and failed to attract sufficient visitors and home buyers for profitability. Despite receiving numerous travel awards, the Resort could not provide the typical experience travelers seek when visiting Hawai‘i: beaches, warm weather and a vibrant nightlife.

Wellness Theme

In order to address the problems, Pūlama Lāna‘i closed the Lodge and the Resort golf course in 2015, and invested $75 million to refresh the Resort. It was reopened November 1, 2019 as the Four Seasons Hotel Lāna‘i at Kō‘ele, A Sensei Retreat (the **Retreat**). Four Seasons Hotels and Sensei partnered to focus exclusively on an all-inclusive wellness retreat with programs tailored to luxury travelers. The Retreat offers a combination of unmatched hospitality, nutritious upscale dining, and health experts found nowhere else in the world.

Facilities and Improvements

The Hotel was reduced in size from 102 guest rooms to 96 rooms. The rooms were remodeled, upgraded and, in some cases, enlarged. Also, some guest rooms were converted to meeting rooms.

The large grand space was resculpted to include 80-foot-long glass wall overlooking the gardens, and a new frieze visually tells the story of the island’s geography and culture.

Facilities at the remodeled hotel include a 24-hour fitness facility, two movement studios, a yoga pavilion and outdoor yoga spaces, salon, *onsen* baths, a new outdoor pool with lap lanes, an 18-hole putting course, an Adventure Center, and a park featuring a Sculpture Garden. In addition, the lake was enlarged and parking added.

Dining

A new restaurant, Sensei by Nobu, features health-focused menus utilizing ingredients from Sensei’s hydroponic farm on Lāna‘i. Guests also may dine in a spa *hale*, poolside or in their rooms, each of which has a balcony or a lanai for *al fresco* dining.

Adventure Center

A $3 million Adventure Center (the **Center**) is being developed on 30 acres that were once part of the Resort golf course. The Center was designed and will be operated by Synergo LLC, an Oregon-based company. It will include a Welcome Center using the old clubhouse, a *keiki* course, an adventure tower, tandem zip lines, a giant swing, tightropes, a climbing wall, a rope climb and other challenges.

Trained facilitators will lead groups of up to 15 people through various stations and course challenges.

The Center will also be available to Hawai‘i residents and other visitors to Lāna‘i.

Park and Sculpture Garden

Most of the former Resort golf course has been turned into a park and Sculpture Garden for residents and visitors. The Sculpture Garden features large works of art commissioned exclusively for the Resort, and designed to inspire thought and reflection.

Services and Activities

Each booking is for at least three days, and each guest is matched with his or her own Sensei Guide (the **Guide**). The Guide works with a team of nutritionists, fitness experts and spa therapists to create customized itineraries prior to the arrival of each guest, and provides support during his or her stay.

Activities range from one-on-one training, group classes, lectures, philanthropic activities, immersive spa treatments in a private *hale,* and island excursions.

Guests will also have access to a full range of Four Seasons-managed island activities, including golf, ocean sports, hiking, biking, horseback riding, archery, sporting clays, and more.

All-inclusive Pricing

The pricing of stays at the Resort is all inclusive, including:

- Luxurious round-trip air travel from Honolulu via Lāna‘i Air.
- The services of the Sensei Guide and support team.
- All meals and refreshments at the Sensei by Nobu restaurant.
- Unlimited group classes and lectures.
- A two-hour Sensei spa experience in a private hale (once per stay).

— A spa and beauty treatment (once per stay).
— A private, one-on-one consultation or training session with a Sensei Guide or wellness practitioner (once per stay).
— Art and other enriching activities.
— Daily hikes.
— Beach and tennis at Manele.
— 18-hole putting green (on site).
— Welcome gifts.
— All gratuities.

Although not shown separately, the underlying room rates are similar to those at Manele.

Additional expenditures include: nutrition, flexibility or skin analysis; thermal body mapping; other health marker analyses; purchases at the gift shop; meals and gifts from restaurants and stores in Lāna‘i City; etc.

b. Land Use

As shown in Section 1.a. of Table III-1, the **Proposed PD** would result in major land-use changes:

— Hotel: increased from 21.1 acres to 43.4 acres.
— Residential: decreased from 214 acres to 48.8 acres, with most of the decreased acreage being converted to Park, Open Space, or dropped from the Proposed PD.
— Multi-Family Residential: decreased from 26 acres to 18.7 acres.
— Resort Commercial: 57.2 acres added.
— Golf: decreased from from 332.4 acres to 78 acres, with most of the decreased acreage being converted to Park, Open Space, or dropped from the Proposed PD.
— Park: increased from 11.5 acres to 234.9 acres.
— Open-Space: increased from 12 acres to 80.8 acres.
— Public: decreased from 1 acre to 0 acre.

c. Resort Components

2019 Resort Components

In 2019, major components of the Resort included 96 rooms at the Hotel, 18 resort single-family (**sf**) homes,[1] 33 resort multi-family (**mf**) homes, and the 9-hole community golf course (Section 1.b of Table III-1).

1. **Resort** homes are the high-quality individually-owned homes located within the Resort, but exclude **staff** homes.

Existing PD, Resort Components at Full Development

Under the **Existing PD**, full development of the Resort would have resulted in 250 hotel rooms, 255 resort sf homes, 90 resort mf homes, a reopened 18-hole Resort golf course, and continued operation of the 9-hole community golf course. However, as mentioned above, the market does not support the development as originally planned.

Proposed PD, Resort Components at Full Development

Under the **Proposed PD**, full development of the Resort would result in (1) a modest increase in development compared to 2019, and (2) a major reduction in development compared to full development under the **Existing PD**. The revised plan for the Resort features 96 hotel rooms (no change from 2019), 57 resort sf homes (an increase of 39 homes from 2019), 33 resort mf homes (no change from 2019), the addition of 20 staff mf homes,[2] continued operation of the 9-hole community golf course, and 30,000 square feet of new commercial space (see Table III-1, Section 1.b). Depending on future market conditions, the hotel rooms could be increased to a number to be determined.

The 20 mf homes would be built and rented to Resort staff. Although these homes are designated mf, they could be sf.

As indicated above, the **Proposed PD** would add 57.2 acres of Resort Commercial. Of this, 55 acres are part of the 215-acre Stables at Kō‘ele (the **Stables**). The Stables would remain at its current location, although it would lose 2 acres which would be used for commercial buildings.

The Resort Commercial designation would allow the Resort to occasionally use a portion of the land used by the Stables. Events would occur about eight times a year, and would be open-air and/or under tents. In addition, two historic buildings would be relocated to the area, and converted to a museum and a retail shop. A third building may be constructed, resulting in a total of about 30,000 square feet of commercial space (about 2 acres with parking and landscaping). The commercial operations would be compatible with the Stables and the Resort.

2. Economic Impacts of Development Activities

Future Resort development will involve building new homes and adding commercial space. Table III-2 summarizes the direct and indirect economic impacts of these development activities. The material in the table gives the development period, construction expenditures, indirect sales generated by the construction activity, profits, employment and payroll, and the number of residents and houses supported by the development activities.

2. **Staff** homes are the high-quality homes located within the Resort that are owned by the Resort and rented to senior managers.

a. Development Period

As indicated in Section 2.a of Table III-2, the assumed development period is about 10 years for the **Proposed PD**. Development activities could require more or less time, depending on future market conditions. Construction would begin after the market for the wellness Retreat is developed, and additional homes and commercial space are needed.

b. Upgrades and New Development

Upgrades to the existing Hotel were completed in 2019, so expenditures on these upgrades are not included in the analysis. For the **Proposed PD**, buildings of about 3,500 square feet would be upgraded for use as a museum and retail store (see Section 2.b of Table III-2).

New development would include an additional 39 resort sf homes, 20 Staff mf homes, and about 26,500 square feet of commercial space.

c. Expenditures and Sales

Property Sales

In **2019**, no lots for resort sf homes and no finished resort mf homes were sold.

For the **Existing PD**, property sales would have included lots for resort sf homes that would be built by the buyers, and finished resort mf homes.

For the **Planned PD**, 39 lots would be sold for resort sf homes, but no new resort mf homes would be sold. Lot sales would total about $35.1 million, or an average of about $3.51 million per year over the 10-year development period (see Section 2.c of Table III-2).

Construction Expenditures

For **2019**, construction expenditures are not estimated since Resort upgrades have been completed (see Section 2.c of Table III-2).

For the **Proposed PD**, total construction expenditures on additional improvements are estimated at about $99.8 million (see Section 2.c of Table III-2). This translates to average construction expenditures of about $10 million per year over the 10-year development period. In practice, construction expenditures would vary from year to year.

Indirect Sales Generated by Construction

In addition to construction expenditures, development activities would generate indirect sales associated with supplying goods and services to construction companies and to the families of their construction workers. In turn, the companies supplying goods and services, and the families of their employees, would purchase goods and services from other companies, and so on. These indirect sales would include sales by companies supplying building

materials (cement, steel, lumber, roofing materials, plumbing equipment, electrical equipment, hardware supplies, lighting, flooring, etc.); rental of construction equipment; equipment repair; warehousing services; shipping and trucking services; etc. Indirect sales also include sales by grocery and drug stores, restaurants, service stations, beauty salons, medical providers, accountants, attorneys, insurance agents, etc. A portion of the indirect sales would occur on O‘ahu since it is the major supplier of goods and services to Lāna‘i.

Based on State economic multipliers, these indirect sales are expected to average about $5.7 million per year for the **Proposed PD** (see Section 2.c of Table III-2.).

Total Expenditures and Sales

For the **Proposed PD**, total construction expenditures plus indirect sales related to construction are expected to average about $19.1 million annually (see Table III-2, Section 2.c). About $16.9 million of this would occur on Lāna‘i, and about $2.3 million on O‘ahu. About $15.9 million per year would be subject to the State 4% excise tax on final sales, and about $3.3 million would be subject to the 0.5% excise tax on intermediate sales.

d. Profits

For the **Proposed PD**, annual profits on construction expenditures and indirect sales generated by construction activities are estimated at about $1.9 million (see Section 2.d of Table III-2). This includes profits of construction companies, subcontractors, companies supplying goods and services to construction companies and the families of workers, etc.

e. Employment

Construction Employment

For the **Proposed PD**, construction employment is expected to average about 30 jobs over the 10-year development period (see Section 2.e of Table III-2). These jobs would include supervisors, equipment operators (grading, roads, etc.), cement and metal workers, metal workers, carpenters, plumbers, electricians, roofers, glass and window installers, painters, equipment installers, etc. Other jobs related to construction would include architects, civil engineers, draftsmen, government inspectors, etc. These jobs would range over a variety of skill levels, including entry-level, semiskilled, skilled, management, and professional positions.

Indirect Employment Generated by Construction

As with indirect sales, development activities would generate indirect jobs, some of which would be on O‘ahu.

Based on State employment multipliers, indirect employment generated by construction activity is expected to average about 40 jobs over the 10-year development period (see Section 2.e of Table III-2.).

Total Employment

For the **Proposed PD**, total direct-plus-indirect employment would average about 70 jobs over the 10-year development period, of which about 55 jobs would be on Lāna‘i (see Table III-2, Section 2.e).

Sources and Training of Construction Workers

The construction labor force on Lāna‘i is limited. As such, it is assumed that a mix of on-island and off-island construction workers would fill the available jobs. In the past, construction workers have commuted from other islands to Lāna‘i to fill the labor requirements of construction.

f. Payroll

For the **Proposed PD**, development activities are estimated to generate an annual payroll of about $6.8 million over the 10-year development period, of which about $2.3 million would be for construction workers, $1.1 million for the indirect jobs on Lāna‘i, and $900,000 for the indirect jobs on O`ahu (see Section 2.f of Table III-2). Annual wages would range from less than $40,000 annually to over $150,000, and are expected to average about $76,000 for construction workers, $46,400 for the indirect jobs on Lāna‘i, and the $54,000 for indirect jobs on O'ahu.

g. Population and Housing

For the **Proposed PD**, the direct and indirect jobs would provide income to support about 155 residents in about 64 homes (see Sections 2.g and 2.h of Table III-2). Most of the residents supported by the direct-plus-indirect jobs are expected to live permanently or temporarily on Lāna‘i, with about 120 of them in about 50 homes.

3. Economic Impacts of Operations

Table III-3 summarizes the economic and population impacts of Resort operations. Included are usage assumptions for the Hotel and homes; the total number of units by type of use (visitor units, owner-occupied homes, vacation and second homes, and rental homes); expenditures and sales; profits; employment; payroll; Resort population; and population and housing supported by the economic activity. Estimates for 2019 exclude Hotel operations which began in November of 2019. Thus, the 2019 figures in Table III-3 reflect Resort conditions before the reopening of the Hotel.

a. Hotel and Homes Usage Assumptions

Usage assumptions for the Hotel and homes are given in Section 3.a of Table III-3. For the Hotel, usage assumptions include: (1) the number of occupied rooms, (2) the number of visitors, (3) room revenues and required hotel fees, and (4) consumption expenditures by visitors.

For Resort homes, usage assumptions include: (1) the split of units between owner-occupied homes, vacation and second homes, and rentals; (2) the number of occupied units; (3) the number of residents and part-time residents; (4) taxable income; and (5) expenditures on consumption and maintenance.

For staff homes, usage assumptions include: (1) the number of occupied units; (2) the number of residents; (3) rents; (4) taxable income; and (5) expenditures on consumption and maintenance.

b. Units, By Type of Use

Units by type of use are shown in Section 3.b of Table III-1. In **2019**, 96 hotel rooms came available for visitors; seven homes were occupied by owners; and 44 homes were rentals.

For the **Proposed PD**, 96 hotel rooms would remain available for visitors and, at full development, about 15 homes would be occupied by owners, about 29 homes would be vacation and second homes, and about 66 homes would be rentals.

Retirees would occupy many of the owned homes, while families of managers, executives, and professionals (collectively referred to as **managers**) would occupy most of the rented homes. Most, but not all, of the mangers living at the resort would depend on income derived from direct or indirect jobs generated by resort operations at Kō‘ele and Mānele.

c. Expenditures and Sales

Expenditures and sales related to Resort operations are summarized in Section 3.c of Table III-3. For **2019**, direct expenditures (i.e., consumption expenditures by visitors, retirees, and part-time residents but not managers and their families) were about $600,000. These expenditures are, in effect, sales by restaurants, shops, service providers, etc. In turn, the purchases of goods and services by these companies and the families of employees generated indirect sales of about $500,000. In addition, consumption expenditure by the Resort staff generated about $1.1 million in sales. Thus, direct expenditures and indirect sales totaled about $2.1 million, of which about $1.6 million was on Lāna‘i. Also, about $1.7 million was subject to the State 4% excise tax on final sales, while about $500,000 was subject to the 0.5% excise tax on intermediate sales. These figures are low because they reflect Resort conditions before the Hotel was reopened.

For the **Proposed PD**, Resort operations at full development would result in annual direct expenditures by Resort visitors and residents of about $89.2 million, indirect sales of about $72.2 million, and total expenditure and sales of about $161.4 million, of which about $136.1 million would be on Lāna‘i. About $106.5 million would be subject to the State 4% excise tax on final sales, and about $54.9 million would be subject to the 0.5% excise tax on intermediate sales.

d. Profits

For **2019**, profits generated by Resort operations and indirect sales are estimated at $200,000 (see Table III-3, Section 3.d).

For the **Proposed PD**, Resort operations at full development would result in annual profits estimated at $16.1 million. This includes profits from (1) expenditures by Resort visitors and residents, and (2) indirect sales.

e. Employment

In **2019**, Resort operations generated an estimated 29 direct jobs, including jobs generated by consumption expenditures by residents living in the Resort homes, and jobs involved with maintaining the Resort grounds and facilities (see Table III-3, Section 3.e). For consistent comparisons, this accounting includes three full-time jobs and one part-time job at the Stables. Adding about 12 indirect jobs results in total employment of about 40 workers, of which about 36 were on Lāna‘i.

For the **Proposed PD**, Resort operations at full development would result in about 450 direct jobs and 180 indirect jobs, for a total of about 630 jobs. About 570 of these would be on Lāna‘i. Since some of the spending by Resort visitors and residents would occur outside the Resort (eg., spending at local restaurants, shops, excursions, etc.), some of the direct jobs would be generated outside the Resort. The employment multipliers used to estimate these jobs were adjusted for: (1) the higher costs of imported goods, resulting in less money available for wages and salaries; and (2) services shared among the Resort, the hotel at Manele, and Hotel Lāna‘i (e.g., laundry, bakery, supply inventories, accounting, etc.)

For the future, it is anticipated that most Resort employees would be from Lāna‘i and other islands, with training provided by Hawai‘i schools and colleges, and by on-the-job training at the Resort.

f. Payroll and Taxable Income

In **2019**, the taxable incomes of retirees and mangers living at the Resort are estimated at $1.2 million and $14.6 million, respectively (see Table III-3, Section 3.f). The payroll of direct and indirect jobs generated by Resort operations totaled about $2 million.

For the **Proposed PD** at full development, the annual taxable incomes of retirees and managers living at the Resort would be about $3.2 million and $20.9 million, respectively. The annual payroll of direct and indirect jobs would be about $31.5 million.

g. Population and Housing

In **2019**, Resort homes housed an average of about 100 residents. The direct and indirect jobs generated by Resort operations provided income to support about 90 residents in about 37 homes, of which about 80 residents and about 34 homes were on Lāna‘i (see Table III-3, Sections g and h). Some of these residents lived in the Resort homes. The total Lāna‘i population of Resort residents and those dependent on Resort operations was about 180 people.

For the **Proposed PD**, the Hotel and Resort homes at full development would house an average of about 280 visitors and residents. Most of the residents are expected to be retirees and families of managers. The direct and indirect jobs generated by Resort operations would provide income to support about 1,610 residents in about 585 homes, of which about 1,250 residents and about 540 homes would be on Lāna‘i. Some of these residents would live in the on-site Resort homes. The total Lāna‘i population of Resort visitors, Resort residents, part-time residents at the Resort, and those dependent on Resort operations living offsite would total about 1,470 people.

4. Impacts on State Revenues and Expenditures

The impact of the Resort on State revenues and expenditures is shown in Table III-4. This table summarizes revenues and expenditures related to development activities and to Resort operations. For the State, the major sources of revenue are the State's Transient Accommodate Tax (**TAT**), the 4% excise tax on final sales, the 0.5% excise tax on intermediate sales, corporate income taxes, and individual income taxes. The fees for the items listed in Subsection III.1.a under All-inclusive Pricing are subject to the TAT because they are combined with the Hotel rents, and the fees are required as part of the room rental.

a. Development Activities

The State derives substantial revenues from development activities. For the **Proposed PD**, further development of the Resort would generate a cumulative total of about $8.6 million in State taxes, or an average of about $860,000 per year over the 10-year development period (see Table III-4, Section 4.a).

State expenditures to support further Resort development activities are expected to be negligible. Infrastructure and facilities to support the Project are already in place, and most were paid by the original developer of the Resort. Also, most infrastructure is a County responsibility.

Construction activities require few onsite services from the State, with most required services provided by construction companies. Also, most construction workers already pay various State taxes, and already receive various State services (e.g., education).

b. Resort Operations

Revenues

State tax revenues derived from Resort Operations are given in Table III-4, Section 4.b. These revenues are split into two categories:

— Category 1 Taxes are derived from direct economic activities, rental of onsite homes, and income and expenditures of on-site residents. This includes taxes on (1) Hotel rents and required hotel fees; (2) rental income of onsite homes,; (3) consumption expenditures by Resort visitors, residents, and part-time residents; (4) profits derived from these expenditures; and (5) income of residents who live at the Resort.

— Category 2 Taxes are derived from indirect economic activities, plus the payroll of direct and indirect workers who live offsite. This includes taxes on (1) indirect expenditures not included in Category 1, (2) profits derived from these expenditures, and (3) payroll of those who live offsite.

As discussed in the next subsection, most of the Category 1 Taxes will be available to the State to fund various services and programs throughout Hawai‘i, while the Category 2 Taxes will cover most of the cost of services required by those families that are supported by the jobs generated by Resort operations and who live offsite.

In **2019**, the State derived about $260,000 in tax revenues from direct and indirect economic activities generated by Resort operations, of which $130,000 were Category 1 Taxes and $130,000 were Category 2 Taxes (see Table III-4, Section 4.b). Tax revenues were low because the analysis reflects conditions before the Hotel was reopened.

For the **Proposed PD**, and assuming full development of the Resort, these State tax revenues are expected to grow to about $14.7 million annually, of which about $12.9 million would be Category 1 Taxes and about $1.8 million would be Category 2 Taxes.

State revenues derived from Resort operations will be high, largely because of the high expenditures by visitors and occupants of the Resort homes. In turn, these expenditures will generate substantial economic activity, along with substantial tax revenues. Also, the residents at the Resort will have high taxable incomes. Finally, the TAT on Hotel rents and require hotel fees will generate substantial revenues to the State. Under current State law, the State shares TAT revenues with the counties, but upper limits for the counties have been reached in recent years. Consequently, additional revenues from the TAT will flow to the State. The State’s sharing of TAT revenues with the counties could change in the future.

Expenditures

The Resort, its visitors, and onsite residents will require few additional services from the State. The Resort will continue to provide or pay for many of the services required by the Resort and its employees, such as water, road maintenance, park maintenance, job training, health services, etc. Visitors, retirees, other on-site residents, and part-time residents will require few State expenditures for education since few are expected to have children enrolled in Hawai'i schools. Also, most new residents will be comparatively wealthy, so they will require little government assistance. Consequently, additional State expenditures to support Resort operations are expected to be negligible.

However, the offsite families directly and indirectly supported by the jobs created by Resort operations will require State expenditures for education, libraries, social services, health services, etc. State expenditures to support these families will be similar in magnitude to its expenditures on other families in the State. Most of these expenditures will be financed by excise taxes on the purchases by these families, and by income taxes on their wages—these are included in the Category 2 Taxes discussed above. The State taxes these families pay will be similar to the average for the County as a whole since, on average, their wages are near the average County wage (about $46,400 per year in 2019).

Nevertheless, State expenditures on services for these families generally will exceed the taxes they pay—a situation which also pertains to most Hawai‘i families. The reason for this is that the State budget is structured so typical families are partially subsidized by tax revenues derived largely from tourism and Resort activities (i.e., the Category 1 Taxes).

In summary, the Category 2 Tax revenues will cover most of the cost of State services required by families supported by the jobs generated by Resort operations. Thus, most of the Category 1 Tax revenues will be available to the State to fund various services and programs throughout Hawai‘i.

5. Impacts on County Revenues and Expenditures

The impact of the Resort on County revenues and expenditures is shown in Table III-5. This table summarizes revenues and expenditures related to development activities and Resort operations. For the County, property taxes are the major source of revenues. Also, the City and County of Honolulu derives tax revenues from economic activity on Lāna‘i because some of the indirect sales occur on O‘ahu. Final sales on O‘ahu are subject to the 0.5% excise-tax surcharge.

a. Development Activities

Unlike the State, the County derives negligible tax revenues from development activities. However, the City and County of Honolulu will derive a small amount from Resort development due to the excise-tax surcharge: about $20,000 over the 10-year development

period for the **Proposed PD**, or an average of about $2,000 per year (see Table III-5, Section 5.a).

County expenditures to support the Resort development activities are expected to be negligible. As mentioned above, the original developer paid for most of the required Resort infrastructure, including interior roads, water systems, sewer systems, drainage systems, etc. The current developer and builders will provide or finance their fair shares of any additional infrastructure that may be required. Also, construction activities generally require few onsite services from the County. The Resort and construction companies will provide security, sanitation, etc. Furthermore, Lāna‘i-based construction workers already pay various County taxes and already receive various County services.

In summary, future development activities will have a negligible impact on County finances.

b. Resort Operations

In **2019**, the Resort—i.e., the Hotel, homes, lands designated for development, golf course, parks, etc.—generated about $830,000 in property taxes, assuming current property-tax rates. In addition, the homes of Lāna‘i families that depended on jobs generated by Resort operations provided about $40,000 in property taxes. Actual property taxes were higher due to the higher property-tax rates in 2019.

At full development of the **Proposed PD**, these property taxes will grow substantially: about $2.4 million in property taxes generated by the Resort, and about $640,000 in property taxes paid by Lāna‘i families having income earned from the direct and indirect jobs generated by Resort operations.

Revenues will be substantial due to:

— The very high property values of the Hotel and the Resort homes.

— The low percentage of homeowners who will qualify for homeowner exemptions.

— The high property tax rates for the Hotel, and for the Resort homes that are not occupied by owners.

— The many offsite homes that would be supported by the direct and indirect jobs generated by Resort operations.

The costs to the County to support the Resort will be comparatively low due to the following:

— The Resort, residential fees, and community association dues will cover the cost of (1) maintaining private roads; (2) operating and maintaining water and waste-water systems; (3) operating and maintaining recreational facilities; and (4) providing on-site security.

— Most retirees have small families so require few County services.

— Most residents will be comparatively wealthy, so will require little government assistance.

However, the families that are directly and indirectly supported by the jobs created by Resort operations will require County expenditures for police, fire, roads, etc. County expenditures to support these families will be similar in magnitude to its expenditures on other families in the County. Most of these expenditures will be financed by property taxes paid by homeowners and the owners of rental homes.

Nevertheless, County expenditures on services for these families generally will exceed the taxes they pay—a situation which also pertains to most families in the County. The reason for this is that the County budget is structured so typical families are partially subsidized by tax revenues derived from resort, commercial, and industrial properties.

In summary, the property taxes paid on homes occupied by families who are directly and indirectly supported by the jobs generated by Resort operations will cover most of the cost of services required by these families. Thus, most of the property taxes paid by the Resort will be available to the County government to fund various services and programs throughout the County.

6. Summary of Major Economic, Population, and Fiscal Impacts

The primary economic and demographic impacts of Resort development and operations are as follows:

— Resort Development

- **Proposed PD**, Development Activities
  + An average of about 70 construction jobs and indirect jobs generated by construction activity over a period of about 10 years.
  + Cumulative State tax revenues of about $8.6 million generated by construction activity.

— Resort Operations

- **2019** Resort Operations
  + About 40 direct and indirect jobs generated by Resort operations, with about 36 jobs on Lāna‘i (the counts were low because they reflect Resort conditions before the Hotel was reopened).
  + An average daily Resort population of about 100 residents.
  + About $260,000 in State tax revenues generated by Resort operations.
  + About $830,000 million in County property tax revenues, assuming current property-tax rates.

- **Proposed PD**, Resort Operations at Full Development
  - + About 630 direct and indirect jobs generated by Resort operations, with about 570 jobs on Lāna‘i.
  - + An average daily Resort population of about 280 visitors, residents, and part-time residents.
  - + About $14.7 million per year in State tax revenues generated by Resort operations, of which about $12.9 million would be available to fund various services and programs throughout Hawai‘i.
  - + About $2.4 million per year in County property tax revenues from the Resort, nearly all of which would be available to fund various services and programs throughout the County.

References

County of Maui, Office of Economic Development. Maui County Data Book. 2018.

County of Maui, Real Property Assessment Division. 2019.

Four Seasons Hotel at Kō‘ele. 2019

Hawai‘i Department of Business, Economic Development & Tourism, State of Hawai‘i. *The Hawai‘i Inter-County Input-Output Study: 2012 Benchmark Report*. March 2016.

Hawai‘i Department of Business, Economic Development & Tourism, State of Hawai‘i. *The State of Hawai'i Data Book*. Annual.

Hawai‘i Department of Labor and Industrial Relations, State of Hawai'i. *Employment and Payroll in Hawai'i*. Annual.

Plasch Econ Pacific LLC. 2019 and 2021.

Pūlama Lāna‘i. 2019 and 2021.

Tax Foundation of Hawai’i. “Taxes in Hawai’i.” Annual.

U.S. Census Bureau. American Community Survey 5 Year Estimate, 2012-2017.

U.S. Census Bureau. Decennial Census, 2010.U.S. Census Bureau. American Community Survey 5 Year Estimate, 2008-2012.

PART II TABLES:
SOCIO-ECONOMIC CONDITIONS

Table II-1. Demographic Characteristics, County of Maui
and Island of Lana'i: 2010 and 2013-2017 Estimates

Item	County of Maui			Lana 'i		
	2010	2013-2017	Change	2010	2013-2017	Change
Population (residents)	154,834	164,094	6.0%	3,135	3,203	2.2%
Male	77,587	81,933	5.6%	1,600	1,617	1.1%
Female	77,247	82,161	6.4%	1,535	1,586	3.3%
Distribution						
Male	50.1%	49.8%		51.0%	50.5%	
Female	49.9%	50.2%		49.0%	49.5%	
Population by Age						
Pre-school Age, 4 and Under	10,020	10,179	1.6%	235	185	-21.3%
School Age, 5 to 19	29,117	29,431	1.1%	621	549	-11.6%
Working Age, 20 to 64	95,894	98,011	2.2%	1,805	1,871	3.7%
Retirement Age, 65 and Over	19,803	26,473	33.7%	474	598	26.2%
Distribution						
Pre-school Age, 4 and Under	6.5%	6.2%		7.5%	5.8%	
School Age, 5 to 17	18.8%	17.9%		19.8%	17.1%	
Working Age, 18 to 64	61.9%	59.7%		57.6%	58.4%	
Retirement Age, 65 and Over	12.8%	16.1%		15.1%	18.7%	
Median Age	39.6	40.90	3.3%	38.6	46.30	19.9%
Ethnicity						
White alone	53,336	58,275	9.3%	460	546	18.7%
Black or African American alone	870	933	7.2%	5	65	1200.0%
American Indian and Alaska Native alone	603	279	-53.7%	2	0	-100.0%
Asian alone	44,595	47,591	6.7%	1,745	1,733	-0.7%
Native Hawaiian and Other Pacific Islander alone	16,051	17,477	8.9%	205	292	42.4%
Some Other Race alone	3,051	1,792	-41.3%	5	0	-100.0%
Two or More Races	36,328	37,747	3.9%	713	567	-20.5%
Distribution						
White alone	34.4%	35.5%		14.7%	17.0%	
Black or African American alone	0.6%	0.6%		0.2%	2.0%	
American Indian and Alaska Native alone	0.4%	0.2%		0.1%	0.0%	
Asian alone	28.8%	29.0%		55.7%	54.1%	
Native Hawaiian and Other Pacific Islander alone	10.4%	10.7%		6.5%	9.1%	
Some Other Race alone	2.0%	1.1%		0.2%	0.0%	
Two or More Races	23.5%	23.0%		22.7%	17.7%	

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Table II-1. Demographic Characteristics, County of Maui and Island of Lana'i: 2010 and 2013-2017 Estimates

(continued)

Item	County of Maui			Lana 'i		
	2010	2013-2017	Change	2010	2013-2017	Change
Households	53,886	54,381	0.9%	1,158	1,246	7.6%
Average Size	2.82	2.97	5.3%	2.71	2.57	-5.2%
Tenure						
Homeowners	30,055	32,248	7.3%	591	642	8.6%
Renters	23,831	22,133	-7.1%	567	604	6.5%
Distribution						
Homeowners	55.8%	59.3%		51.0%	51.5%	
Renters	44.2%	40.7%		49.0%	48.5%	
Household Type						
Family Household	35,498	37,230	4.9%	788	846	7.4%
Non-Family Household	18,388	17,151	-6.7%	370	400	8.1%
Distribution						
Family Household	65.9%	68.5%		68.0%	67.9%	
Non-Family Household	34.1%	31.5%		32.0%	32.1%	
Housing Units	70,379	72,093	2.4%	1,545	1,561	1.0%
Occupied	53,886	54,381	0.9%	1,158	1,246	7.6%
Vacant	16,493	17,712	7.4%	387	315	-18.6%
For seasonal, recreational, or occasional use	9,956	n/a		108	n/a	
Distribution						
Occupied	76.6%	75.4%		75.0%	79.8%	
Vacant	23.4%	24.6%		25.0%	20.2%	
For seasonal, recreational, or occasional use	14.1%	n/a		7.0%	n/a	

Sources:

U.S. Censusu Bureau. Decennial Census. 2010.

U.S. Census Bureau. American Community Survey 5 Year Estimate, 2013-2017.

Table II-2. Income and Education, County of Maui and Island of Lana'i: 2008-2012 and 2013-2017 Estimates

Item	County of Maui			Lana 'i		
	2008-2012	2013-2017	Change	2008-2012	2013-2017	Change
Income						
Mean Household Income	$83,535	$93,964	12.5%	$67,656	$67,944	0.4%
Per Capita Income	$29,493	$32,379	9.8%	$22,015	$27,698	25.8%
Educational Attainment, 25 Years and Older						
Less than 9th Grade	5,230	3,908	-25.3%	268	198	-26.1%
Grades 9 to 12, No Diploma	5,814	5,215	-10.3%	145	97	-33.1%
High School Graduate, No College	33,617	36,470	8.5%	829	824	-0.6%
Some College, No Degree	26,388	28,082	6.4%	393	481	22.4%
Associate Degree	9,449	11,768	24.5%	183	229	25.1%
College, Bachelor's Degree	17,938	20,711	15.5%	301	414	37.5%
Graduate or Professional Degree	9,045	9,748	7.8%	144	162	12.5%
Total Population, Age 25 and Older	107,481	115,902	7.8%	2,263	2,405	6.3%
Distrbution						
Less than 9th Grade	4.9%	3.4%		11.8%	8.2%	
Grades 9 to 12, No Diploma	5.4%	4.5%		6.4%	4.0%	
High School Graduate, No College	31.3%	31.5%		36.6%	34.3%	
Some College, No Degree	24.6%	24.2%		17.4%	20.0%	
Associate Degree	8.8%	10.2%		8.1%	9.5%	
College, Bachelor's Degree	16.7%	17.9%		13.3%	17.2%	
Graduate or Professional Degree	8.4%	8.4%		6.4%	6.7%	
Language Spoken at Home (Household)						
English Only	115,471	119,421	3.4%	2,207	2,078	-5.8%
Spanish	3,056	5,243	71.6%	-	-	0.0%
Other Indo-European	2,702	1,609	-40.5%	42	-	-100.0%
Asian and Pacific Island languages	23,598	27,044	14.6%	970	940	-3.1%
Others	88	598	579.5%	-	-	0.0%
Distribution						
English Only	79.7%	77.6%		68.6%	68.9%	
Spanish	2.1%	3.4%		0.0%	0.0%	
Other Indo-European	1.9%	1.0%		1.3%	0.0%	
Asian and Pacific Island languages	16.3%	17.6%		30.1%	31.1%	
Others	0.1%	0.4%		0.0%	0.0%	

Sources:

U.S. Census Bureau. American Community Survey 5 Year Estimate, 2008-2012.

U.S. Census Bureau. American Community Survey 5 Year Estimate, 2013-2017.

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PART III TABLES:
ECONOMIC, POPULATION AND FISCAL IMPACTS

Table III-1. Project Description
(Values in 2019 dollars)

Item	Source or Multiplier	Yr 2019	Future, Proposed PD	Units
1.a. LAND USE				
Hotel	Pūlama Lānaʻi	21.1	43.4	acres
Residential	Pūlama Lānaʻi	214.0	48.8	acres
Multi-Family Residential	Pūlama Lānaʻi	26.0	18.7	acres
Resort Commercial	Pūlama Lānaʻi	-	57.2	acres
Golf	Pūlama Lānaʻi	332.4	78.0	acres
Park	Pūlama Lānaʻi	11.5	234.9	acres
Open Space	Pūlama Lānaʻi	12.0	80.8	acres
Public	Pūlama Lānaʻi	1.0	-	acres
Total		618.0	561.8	acres
Change in PD Acreage			(56.2)	acres
Removed			(131.9)	acres
Added			75.7	acres
1.b. RESORT COMPONENTS				
Hotel and Homes				
Hotel Rooms	Pūlama Lānaʻi	96	96	rooms
Resort Single-Family (SF) Homes	Pūlama Lānaʻi	18	57	homes
Resort Multi-Family (MF) Homes	Pūlama Lānaʻi	33	33	homes
Staff MF Homes, Rentals	Pūlama Lānaʻi	-	20	homes
Total Units		147	206	units
Golf	Pūlama Lānaʻi	9	9	holes
Resort Commercial				
Museum and Retail Shops	Pūlama Lānaʻi		30,000	sq. ft.
Special Events (tents)	Pūlama Lānaʻi		22,500	sq. ft.
Stables (portion within the PD)	Pūlama Lānaʻi		53.0	acres

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Table III-2. Development Activities
(Values in 2019 dollars)

Item	Source or Multiplier	Yr 2019	Future, Proposed PD	Units
2.a. DEVELOPMENT PERIOD	Pūlama Lānaʻi	-	10	years
2.b. UPGRADES AND NEW DEVELOPMENT				
Upgrades				
Existing Commercial Space			3,500	sq. ft.
New Development				
Resort SF Homes			39	homes
Staff MF Homes			20	homes
Resort Commercial Space			26,500	sq. ft.
2.c. EXPENDITURES & SALES				
Property Sales (Lots for SF Homes)	$ 900,000 per lot		$ 35,100,000	
Annual Lot Sales			$ 3,510,000	per year
Construction Expenditures				
Upgrades				
Existing Hotel Rooms		n.e.	$ -	
Existing Commercial Space	$ 200 per sq. ft.	n.e.	$ 700,000	
New Development				
Resort SF Homes	$ 1,500,000 per home		$ 58,500,000	
Staff MF Homes	$ 1,500,000 per home		$ 30,000,000	
Resort Commercial Space	$ 400 per sq. ft.		$ 10,600,000	
Total Construction Expenditures		n.e.	$ 99,800,000	
Annual Construction Expenditures			$ 9,980,000	per year
Hawaii Activity	55%		$ 5,489,000	per year
Imports	45%		$ 4,491,000	per year
Indirect Sales Related to Construction	1.03 x H activity		$ 5,653,670	per year
Total Expenditures & Sales		n.e.	$ 19,143,670	per year
Lānaʻi	60% of indirect		$ 16,882,202	per year
Oʻahu	40% of indirect		$ 2,261,468	per year
Final Sales (taxed at 4%)				
Lot Sales	above		3,510,000	per year
Construction Expenditures	above		$ 9,980,000	per year
Consumption Expenditures	55% of payroll		$ 2,379,155	per year
Total Final Sales			$ 15,869,155	per year
Intermediate Sales (taxed at 0.5%)	residual		$ 3,274,515	per year
2.d. PROFITS	10% of Total Sales	n.e	1,914,367	per year
2.e. EMPLOYMENT				
Construction Employment	3.09 x sales/$1 mil		31	jobs
Indirect Employment	1.30 x direct jobs		40	jobs
Lānaʻi	60% of indir. jobs		24	jobs
Oʻahu	40% of indir. jobs		16	jobs
Total Employment			71	jobs
Lānaʻi			55	jobs
Oʻahu			16	jobs
2.f. PAYROLL				
Construction Jobs	$ 76,000 per job	n.e.	$ 2,343,703	per year
Indirect Jobs		n.e.		
Lānaʻi	$ 46,400 per job		$ 1,116,096	per year
Oʻahu	$ 54,000 per job		$ 865,937	per year
Total Payroll		n.e.	$ 4,325,736	per year
Lānaʻi			$ 3,459,799	per year
Oʻahu			$ 865,937	per year

Table III-2. Development Activities
(Values in 2019 dollars)
(continued)

Item	Source or Multiplier	Yr 2019	Future, Proposed PD	Units
2.g. RESIDENTS SUPPORTED				
Lānaʻi	2.20 per job	n.e	121	residents
Oʻahu	2.13 per job	n.e.	34	residents
Total Residents		n.e.	155	residents
2.h. HOUSING SUPPORTED				
Lānaʻi	0.430 per resident	n.e.	52	homes
Oʻahu	0.340 per resident	n.e.	12	homes
Total Homes		n.e.	64	homes

REF-471

Table III-3. Resort Operations
(Values in 2019 dollars)

Item	Source or Multiplier	Yr 2019	Future, Proposed PD	Units
3.a. HOTEL & HOMES USAGE ASSUMPTIONS				
Hotel	Table 1, Section 1.b	96	96.0	rooms
Occupied Rooms	50%	-	48.0	rooms
Visitors	2.00 per room	-	96.0	visitors
Hotel Rents and Required Hotel Fees				
Hotel Rents	$ 1,200 per night	$ -	$ 21,024,000	per year
Required Fees	$ 1,773 per visitor-day	$ -	$ 62,125,920	per year
Total Rents and Fees		$ -	$ 83,149,920	per year
Consumption Expenditures	$ 100 per visitor-day	$ -	$ 3,504,000	per year
Resort SF Homes, Existing	Table III-1, Section 1.b	18	18.0	homes
Owner-Occupied Homes (Retirees)	Maui County	2.0	2.0	homes
Occupied Homes	95%	1.9	1.9	homes
Residents	2.00 per household	3.8	3.8	residents
Taxable Income	$ 200,000 per household	$ 380,000	$ 380,000	per year
Consumption Expenditures	$ 100 per person-day	$ 162,700	$ 162,700	per year
+ Maintenance	$ 12,000 per home			
Rental Homes for Managers	Maui County	16.0	16.0	homes
Occupied Homes	90%	14.4	14.4	homes
Residents	2.5 per party	36.0	36.0	residents
Home Rents	$ 4,500 per month	$ 777,600	$ 777,600	per year
Taxable Income	$ 400,000 per household	$ 5,760,000	$ 5,760,000	per year
Consumption Expenditures	$ 90 per person-day	$ 1,326,600	$ 1,326,600	per year
+ Maintenance	$ 9,000 per home			
Resort SF Homes, New	Table III-1, Section 1.b	-	39.0	homes
Owner-Occupied Homes (Retirees)	25%		10.0	homes
Occupied Homes	98%		9.8	homes
Residents, Full-Time	2.00 per household		19.6	residents
Taxable Income	$ 200,000 per household		$ 1,960,000	per year
Consumption Expenditures	$ 100 per person-day		$ 835,400	per year
+ Maintenance	$ 12,000 per home			
Vacation & Second Homes	75%		29.0	homes
Occupied Homes	25%		7.25	homes
Residents, Part-time	2.5 per party		18.13	part-time res.
Consumption Expenditures	$ 120 per person-day		$ 1,141,875	per year
+ Maintenance	$ 12,000 per home			
Resort MF Homes	Table III-1, Section 1.b	33	33.0	homes
Owner-Occupied Homes (Retirees)	Maui County	5.0	5.0	homes
Occupied Homes	95%	4.8	4.8	homes
Residents	2.0 per household	9.5	9.5	residents
Taxable Income	$ 175,000 per household	$ 831,250	$ 831,250	per year
Consumption Expenditures	$ 100 per person-day	$ 396,750	$ 396,750	per year
+ Maintenance	$ 10,000 per home			
Rental Homes for Managers	Maui County	28.0	28.0	homes
Occupied Homes	90%	25.2	25.2	homes
Residents	2.1 per party	52.9	52.9	residents
Home Rents	$ 2,500 per month	$ 756,000	$ 756,000	per year
Taxable Income	$ 350,000 per household	$ 8,820,000	$ 8,820,000	per year
Consumption Expenditures	$ 90 per person-day	$ 1,934,422	$ 1,934,422	per year
+ Maintenance	$ 7,000 per home			

Table III-3. Resort Operations
(Values in 2019 dollars)
(continued)

Item	Source or Multiplier	Yr 2019	Future, Proposed PD	Units
Staff MF Homes, Rented	Table III-1, Section 1.b	-	20.0	homes
Rental Homes for Resort Managers	100%	-	20.0	homes
Occupied Homes	90%	-	18.0	homes
Residents	2.50 per household	-	45.0	residents
Home Rents	$ 4,500 per month	$ -	$ 972,000	per year
Taxable Income	$ 350,000 per household	$ -	$ 6,300,000	per year
Consumption Expenditures	$ 90 per person-day	$ -	$ 1,658,250	per year
+ Maintenance	$ 9,000 per home			
3.b. UNITS, BY TYPE OF USE				
Hotel	Section 3.a	96	96	rooms
Owner-occupied Homes (Retirees)				
Resort SF Homes	Section 3.a	2	12	homes
Resort MF Homes	Section 3.a	5	5	homes
Total		7	17	homes
Vacation & Second Homes, Resort SF Home	Section 3.a		29	homes
Rental Homes for Island Managers				
Resort SF Homes	Section 3.a	16	16	homes
Resort MF Homes	Section 3.a	28	28	homes
Staff MF Homes	Section 3.a	-	20	homes
Total		44	64	homes
Total Units		147	206	units
Occ. Rental Homes for Island Managers	Section 3.a	39.6	57.6	homes
3.c. EXPENDITURES & SALES				
Direct Expenditures				
Hotel Rents and Required Hotel Fees	Section 3.a	n.e.	$ 83,149,920	per year
Consumption Expenditures of Visitors, Retirees and Part-time Residents	Section 3.a	$ 559,450	$ 6,040,725	per year
Total Direct Expenditures		$ 559,450	$ 89,190,645	per year
Indirect Sales				
Generated by Direct Expenditures	81% of expenditures	$ 453,155	$ 72,244,422	per year
Generated by Exp. of Resort Managers during Hotel Closure	85% of payroll	$ 1,105,000		per year
Total Indirect Sales		$ 1,558,155	$ 72,244,422	per year
Total Expenditures & Sales		$ 2,117,605	$ 161,435,067	per year
Lāna'i	residual	$ 1,572,250	$ 136,149,520	per year
O'ahu	35% of indirect sales	$ 545,354	$ 25,285,548	per year
Final Sales (taxed at 4%)				
Direct Expenditures & Sales	above	$ 559,450	$ 89,190,645	per year
Consumption, Families of Employees	55% of payroll	$ 1,104,238	$ 17,316,054	per year
Total Final Sales		$ 1,663,688	$ 106,506,699	per year
Rents, Onsite Homes	Section 3.a	$ 1,533,600	$ 2,505,600	per year
Homes of Managers, Resort Ops	47% derived	$ -	$ 1,172,325	per year
Homes, Other Managers	Residual	$ 1,533,600	$ 1,333,275	per year
Consumption by Onsite Renters	Section 3.a	$ 3,261,022	$ 4,919,272	per year
Families Managers, Resort Ops	47% derived	$ -	$ 2,301,640	per year
Other Families	Residual	$ 3,261,022	$ 2,617,632	per year
Consumption, Offsite Families	Residual	$ 1,104,238	$ 13,842,089	per year
Intermediate Sales (taxed at 0.5%)	residual	$ 453,916	$ 54,928,369	per year
3.d. PROFITS	10% Total Sales	$ 211,760	$ 16,143,507	per year

REF-472

Table III-3. Resort Operations

(Values in 2019 dollars)
(continued)

Item	Source or Multiplier	Yr 2019	Future, Proposed PD	Units
3.e. EMPLOYMENT				
Direct Employment				
Jobs Generated by Direct Expenditures	7.8 sales/$1 mil	3	452	jobs
	65% adjustment			
Resort Jobs during Hotel Closure	Pūlama Lāna'i	26		jobs
Total Direct Jobs		29	452	jobs
Indirect Employment	40% of dir. Jobs	12	181	jobs
Lāna'i	Residual	7	118	jobs
O'ahu	35% of indirect jobs	4	63	jobs
Total Employment		40	633	jobs
Lāna'i		36	570	jobs
O'ahu		4	63	jobs
3.f. PAYROLL AND TAXABLE INCOME				
Taxable Income				
Income of Retirees	Section 3.a	$ 1,211,250	$ 3,171,250	per year
Income of Onsite Managers	Section 3.a	$ 14,580,000	$ 20,880,000	per year
Income of Managers, Resort Operations	47% derived	$ -	$ 9,769,379	per year
Income of Other Managers	Residuals	$ 14,580,000	$ 11,110,621	per year
Payroll of Employees				
Payroll of Direct Employment				
For Jobs Generated by Direct Exp.	$ 50,000 per job	$ 141,821	$ 22,609,829	per year
For Resort Jobs during Hotel Closure	$ 50,000 per job	$ 1,300,000		
Payroll of Indirect Employment				
Lāna'i	$ 46,400 per job	$ 347,882	$ 5,455,299	per year
O'ahu	$ 54,000 per job	$ 218,003	$ 3,418,606	per year
Total Payroll		$ 2,007,706	$ 31,483,734	per year
Total Taxable Income		$ 3,218,956	$ 44,424,363	per year
3.g. POPULATION				
Resort Population (daily average)				
Visitors	Section 3.a	n.e.	96	visitors
Resort Residents, Part-time		-	18	part-time res.
Resort Residents, Retirees		13	33	residents
Resort Residents, Families of Managers	Section 3.a	89	134	residents
Total Resort Population		102	281	people
Residents Supported				
Lāna'i				
On-site	5% Total	4	63	residents
Off-site	residual	76	1,191	residents
Total Lāna'i	2.20 per job	80	1,253	residents
O'ahu	2.13 per job	9	135	residents
Total Supported Population		89	1,388	residents
Total Population		187	1,607	people
Lāna'i		178	1,472	people
O'ahu		9	135	people
3.h. HOUSING SUPPORTED				
Lāna'i				
On-site	5% Total	2	27	homes
Off-site	residual	33	512	homes
Total Lāna'i	0.430 per resident	34	539	homes
O'ahu	0.340 per resident	3	46	homes
Total Homes		37	585	homes

Table III-4. State Revenues and Expenditures

(Values in 2019 dollars)

Item	Source or Multiplier	Yr 2019	Future, Proposed PD	Units
4.a. DEVELOPMENT ACTIVITY				
Tax Base				
Development Period	Table III-2, Section 2.a		10	years
Lot Sales for SF Homes	Table III-2, Section 2.a		$ 3,510,000	per year
Expenditures & Sales				
Final Sales Taxed at 4%	Table III-2, Section 2.c		$ 15,869,155	per year
Intermediate Sales Taxed at 0.5%	Table III-2, Section 2.c		$ 3,274,515	per year
Profits	Table III-2, Section 2.d		$ 1,914,367	per year
Payroll	Table III-2, Section 2.f		$ 4,325,736	per year
Revenues				
Conveyance Tax	0.25% of lot sales		$ 8,775	per year
Excise Taxes				
Final Sales	4% of final sales	n.e.	$ 634,766	per year
Intermediate Sales	0.5% of inter. sales	n.e.	$ 16,373	per year
Total Excise Taxes		n.e.	$ 651,139	per year
Corporate Income Taxes	1.0% of profit	n.e.	$ 19,144	per year
Personal Income Taxes	4.1% of payroll	n.e.	$ 177,355	per year
Total State Tax Revenues		n.e.	$ 856,413	per year
Cumulative Tax Revenues		n.e.	$ 8,564,126	
Expenditures			see text	
4.b. OPERATIONS, FULL DEVELOPMENT				
Tax Base, Direct & Indirect Econ Activity				
Hotel Rents and Required Fees	Table III-3, Section 3.c	n.e.	$ 83,149,920	per year
Expenditures & Sales				
Final Sales Taxed at 4%				
Direct Expenditures	Table III-3, Section 3.c	$ 559,450	$ 89,190,645	per year
Indirect/Final Sales				
Rents, Onsite Homes	Table III-3, Section 3.c	$ 1,533,600	$ 2,505,600	per year
Consumption				
Onsite Families, Resort Ops	Table III-3, Section 3.c	$ -	$ 2,301,640	per year
Offsite Families	derived	$ 1,104,238	$ 13,842,089	per year
Indirect Sales Taxed at 0.5%	Table III-3, Section 3.c	$ 453,916	$ 54,928,369	per year
Profits	Table III-3, Section 3.d	$ 211,760	$ 16,143,507	per year
On Direct Sales	10% of dir. sales	$ 55,945	$ 8,919,065	per year
On Indirect Sales	residual	$ 155,815	$ 7,224,442	per year
Taxable Income	Table III-3, Section 3.f	$ 3,218,956	$ 44,424,363	per year
Income of Retirees	Table III-3, Section 3.f	$ 1,211,250	$ 3,171,250	per year
Payroll/Income of Workers	Table III-3, Section 3.f	$ 2,007,706	$ 31,483,734	per year
Inc. of Onsite Managers, Resort Ops	Table III-3, Section 3.f	$ -	$ 9,769,379	per year
Income of Offsite Workers	residual	$ 2,007,706	$ 21,714,355	per year
Revenues				
Category 1 Taxes				
Transient Accommodations Taxes	10.25% of Rents/Fees	n.e.	$ 8,522,867	per year
Excise Taxes				
Direct Sales	4% of exp.	$ 22,378	$ 3,567,626	per year
Rents, Onsite Homes	4% of rents	$ 61,344	$ 100,224	per year
Consumption by Onsite Families	4% of consumption	$ -	$ 92,066	per year
Corporate Income Taxes, Direct Sales	1.0% of profit	$ 559	$ 89,191	per year
Personal Income Taxes				per year
Income of Retirees	4.1% of income	$ 49,661	$ 130,021	per year
Income of Onsite Workers	4.1% of income	$ -	$ 400,545	per year
Subtotal		$ 133,943	$ 12,902,539	per year

REF-473

Table III-4. State Revenues and Expenditures

(Values in 2019 dollars)

(continued)

Item	Source or Multiplier	Yr 2019	Future, Proposed PD	Units
Category 2 Taxes				
Excise Taxes				
Consumption, Offsite Families	4% of final sales	$ 44,170	$ 553,684	per year
Intermediate Sales	0.5% of inter. sales	$ 2,270	$ 274,642	per year
Corporate Income Taxes, Indirect Sales	1.0% of profit	$ 1,558	$ 72,244	per year
Personal Income Taxes, Offsite Workers	4.1% of income	$ 82,316	$ 890,289	per year
Subtotal		$ 130,313	$ 1,790,858	per year
Total Revenues		$ 264,256	$ 14,693,397	per year
Expenditures		see text	see text	

Table III-5. County Revenues and Expenditures

(Values in 2019 dollars)

Item	Source or Multiplier	Yr 2019	Future, Proposed PD	Units
5.a. DEVELOPMENT ACTIVITY				
Tax Base				
Development Period	Table III-2, Section 2.a		10	years
Final Sales, O'ahu (Consumption Exp.)	55% of payroll		$ 476,265	per year
Revenues				
Maui County		n.e.	n.e.	
City & County of Honolulu				
Excise Tax Surcharge	0.5% of final sales	n.e.	$ 2,381	per year
Cumulative		n.e.	$ 23,813	
Expenditures			see text	
5.b. OPERATIONS, FULL DEVELOPMENT				
Tax Base				
Hotel				
Rooms	Table III-1, Section 1.b	96	96	rooms
Property Value				
Existing Value		$ 25,400,000	$ 25,400,000	
Recent Upgrades	Pūlama Lānaʻi		$ 75,000,000	
Total Hotel Value		$ 25,400,000	$ 100,400,000	
Resort Homes				
Existing Resort SF Homes				
Number	Table III-1, Section 1.b	18	18	homes
Value (land and improvements)	Maui County	$ 26,037,900	$ 26,037,900	
Owner-Occupied Homes	Maui County	$ 3,932,100	$ 3,932,100	
Non Owner-Occupied Homes	Maui County	$ 22,105,800	$ 22,105,800	
New Resort SF Homes				
Number	Table III-2, Section 2.b		39	homes
Value (land and improvements)	Table III-2, Section 2.c		$ 93,600,000	
Owner-Occupied Homes	25%		$ 23,400,000	
Non Owner-Occupied Homes	75%		$ 70,200,000	
Existing Resort MF Homes				
Number	Table III-1, Section 1.b	33	33	homes
Value (land and improvements)	Maui County	$ 31,037,800	$ 31,037,800	
Owner-Occupied Homes	Maui County	$ 4,750,000	$ 4,750,000	
Non Owner-Occupied Homes	Maui County	$ 26,287,800	$ 26,287,800	
Staff MF Homes				
Number			20	homes
Value (land and improvements)	$ 2,000,000 per home		$ 40,000,000	
Unimproved Residential				
Existing Value	Maui County	$ 27,911,200	$ 27,911,200	
Adj. to Avoid Double Counting				
New Resort SF Homes	Above		39.0	homes
Land	0.8 acres/hm		31.2	acres
Less Existing Value	$ 90,000 per acre		$ (2,808,000)	
New Staff MF Homes	Above		20.0	homes
Land	0.6 acres/hm		12.0	acres
Less Existing Value	$ 90,000 per acre		$ (1,080,000)	
Decrease in SF and MF Land	derived, Table III-1, Section 1.a		172.50	acres
Decrease in Value	$ 80,000 per acre		$ (13,800,000)	
Total Adjusted Value		$ 27,911,200	$ 13,031,200	

REF-474

Table III-5. County Revenues and Expenditures
(Values in 2019 dollars)
(Continued)

Item	Source or Multiplier	Yr 2019	Future, Proposed PD	Units
Home-Owner Exemptions				
Resort SF Homes	Table III-3, Section 3.a	2	12	exemptions
Resort MF Homes	Table III-3, Section 3.a	5	5	exemptions
Total Exemptions		7	17	exemptions
Value of Exemptions	$ (200,000) per exemption	(1,400,000)	(3,400,000)	
Resort Commercial				
Land	Table III-1, Section 1.b		57.20	acres
Stables	Table III-2, Section 2.b		53.00	acres
Change in Use	residual		4.20	acres
Property Value				
Existing Value	Maui County	$ 1,845,700	$ 1,845,700	
Increase in Land Value	$ 300,000 per acre		$ 1,260,000	
Upgrades	Table III-2, Section 2.c		$ 700,000	
New Buildings	Table III-2, Section 2.c		$ 10,600,000	
Total Resort Commercial		$ 1,845,700	$ 14,405,700	
Golf/Park/Open Space		$ 10,500,000	$ 10,500,000	
Supported Homes, Offsite				
Homes, Lanai	Table III-3, Section 2.h	33	512	
Owner-Occupied Homes/Exemptions	60%	20	307	
Rented Homes	40%	13	205	
Property Value				
Owner-Occupied Homes	$ 450,000 per home	$ 8,816,379	$ 138,253,557	
Value of Exemptions	$ (200,000) per exemption	$ (3,918,391)	$ (61,446,026)	
Rented Homes	$ 400,000 per home	$ 5,224,521	$ 81,928,034	
Revenues				
Resort				
Transient Accommodations Tax		$ -	n.e.	per year
Property Taxes				
Hotel	$ 10.70 per $1,000	$ 271,780	$ 1,074,280	per year
Existing Resort SF Homes				
Owner-Occupied Homes	$ 2.61 per $1,000	$ 10,263	$ 10,263	per year
Non Owner-Occupied Homes	$ 6.90 per $1,000	$ 152,530	$ 152,530	per year
New Resort SF Homes				
Owner-Occupied Homes	$ 2.61 per $1,000	$ -	$ 61,074	per year
Non Owner-Occupied Homes	$ 6.90 per $1,000	$ -	$ 484,380	per year
Existing Resort MF Homes				
Owner-Occupied Homes	$ 2.61 per $1,000	$ 12,398	$ 12,398	
Non Owner-Occupied Homes	$ 6.90 per $1,000	$ 181,386	$ 181,386	per year
Staff MF Homes	$ 6.90 per $1,000	$ -	$ 276,000	per year
Unimproved Residential	$ 6.90 per $1,000	$ 192,587	$ 89,915	per year
Home-Owner Exemptions	$ 2.61 per $1,000	$ (3,654)	$ (8,874)	per year
Resort Commercial	$ 6.29 per $1,000	$ 11,609	$ 90,612	per year
Total Property Taxes, Resort		$ 828,899	$ 2,423,963	per year
Off-site Properties, Lanai				
Owner-Occupied Homes	$ 2.51 per $1,000	$ 22,129	$ 347,016	per year
Home-Owner Exemptions	$ 2.51 per $1,000	$ (9,835)	$ (154,230)	per year
Rented Homes	$ 5.45 per $1,000	$ 28,474	$ 446,508	per year
Other Properties		n.e.	n.e.	per year
Total Property Taxes, Offsite Prop.		$ 40,768	$ 639,295	per year
Total Property Taxes		$ 869,666	$ 3,063,258	per year
Expenditures		see text	see text	

REF-475

APPENDIX

I

TRAFFIC ASSESSMENT

REF-476

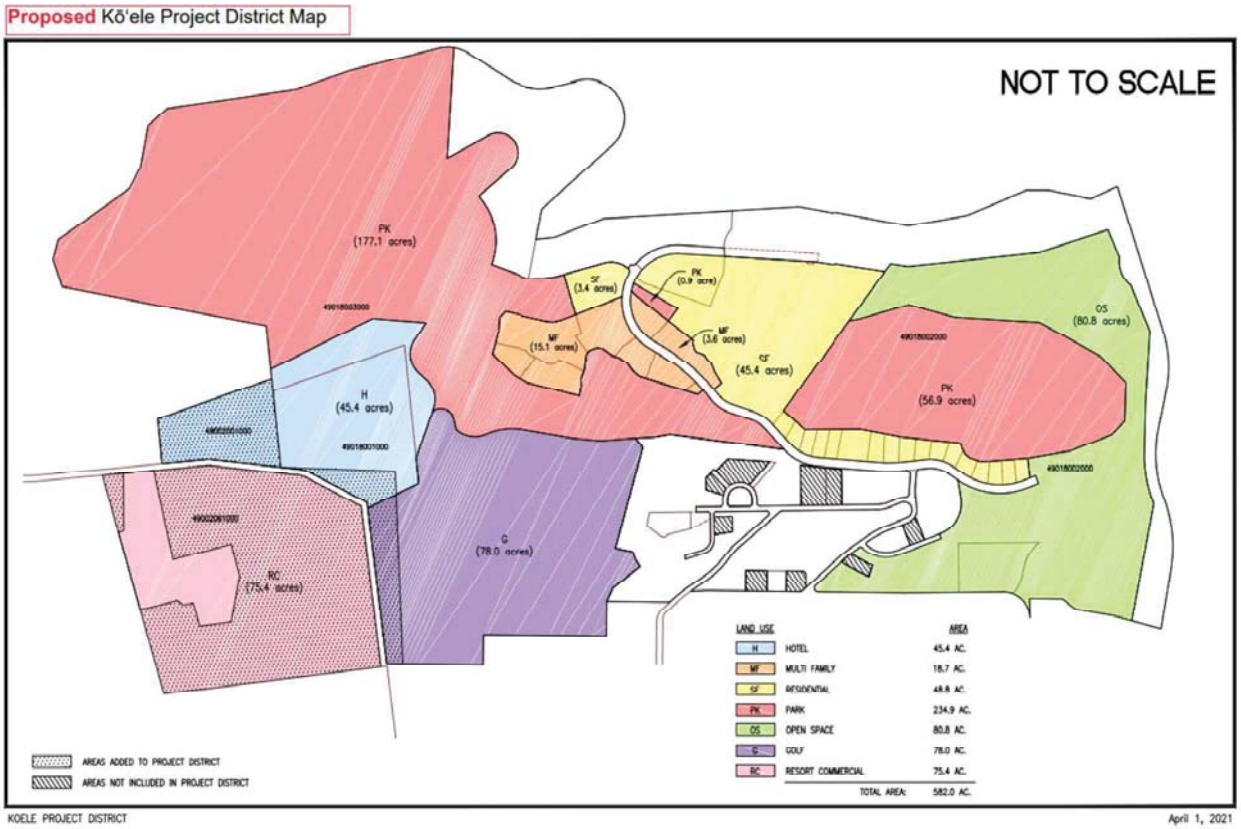
April 6, 2021

We were originally contracted to complete a Traffic Assessment for the draft Environmental Assessment for the Kōʻele Project District Amendment.

An inconsistency between MCC Chapter 19.71.080 and Ordinance 1581, 2140, and 2852 was identified by Pūlama Lānaʻi while finalizing their application. A non-contiguous 14.5 acre parcel (TMK: [2] 4-9-002:061 (portion)) is zoned "Project District" in Ordinance 2852, however, no subdistrict designation is assigned to the 14.5 acres in Ordinance 2852. Furthermore, there is no record of the 14.5 acres in Ordinance 1581, Ordinance 2140, and MCC Chapter 19.71.080, where the subdistricts are identified by the number of acres.

Pūlama Lānaʻi has incorporated this 14.5 acre section (identified as "Stables & Tennis Courts" in CIZ Map 2615) into the Proposed Kōʻele Project District Map, it was not identified in earlier maps provided to our firm.

We attest that the results of our technical study, *Final Draft Traffic Assessment for Kōʻele Project District, Lānaʻi, Hawaiʻi,* do not change based on the updated map.



Signed

Matt K. Nakamoto
Matt K. Nakamoto (Apr 7, 2021 07:46 HST)

Matt K. Nakamoto, P.E.
Vice President & Chief Transportation Engineer
Austin Tsutsumi & Associates, Inc.

AUSTIN, TSUTSUMI & ASSOCIATES, INC. CIVIL ENGINEERS • SURVEYORS
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#19-209

February 16, 2021

Ms. Keiki-Pua S. Dancil, Ph.D.
Pulama Lanai
733 Bishop Street, Suite 1500
Honolulu, Hawaii 96813

Dear Ms. Dancil:

Subject: Final Draft Traffic Assessment for Koele Project District
Lanai, Hawaii

Austin, Tsutsumi & Associates, Inc. (ATA) has conducted a Traffic Assessment (TA) to document the updates and impacts from the proposed Koele Project District (hereinafter referred to as the "Proposed KPD") in comparison to the original Koele Project District (hereinafter referred to as the "Original KPD") located in Lanai, Hawaii.

Project Description

It is our understanding that the Original KPD spans approximately 618 acres of land immediately northeast and adjacent to Lanai City. However, the Proposed KPD will update the boundaries by adding and removing land for a net reduction of 56.2 acres from the project district. With the update, the following land uses and areas are also proposed:

- Hotel – 43.4 acres
- Single Family Residential – 48.8 acres
- Multi-Family Residential – 18.7 acres
- Park – 234.9 acres
- Open Space – 80.8 acres
- Golf – 78.0 acres
- Resort Commercial – 57.2 acres

Overall, the Proposed KPD will provide more park and open space uses and minimize the amount of residential development compared to the Original KPD. See Figure 1 for the Project Location and Figures 2 and 3 for the Original KPD and the Proposed KPD site plans, respectively.

We understand that the State Land Use Commission (LUC) previously approved the reclassification of approximately 78.793 acres of land and the expansion of the Koele Project District by approximately 67.9 acres in August 1991. Following the changes, the Maui County Code Chapter 19.71 was amended to reflect updated density and acreage per land use

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category for the Koele Project District (Ordinance 2139, August 1992). The Lanai City Traffic Circulation Plan Traffic Impact Study dated October 4, 1991 indicated adequate capacity within the Lanai City roadway network to handle future growth and development on Lanai, including the Original KPD.

Study Area

The island of Lanai is generally rural in nature with the majority of residents living in the plantation town of Lanai City. The island currently supports a resident population of just over 3,000 and is anticipated to ultimately support approximately 6,000 residents as the island is developed.

The Koele Project District is located adjacent to Lanai City and is accessible through the town. The project district lands are currently occupied by the Cavendish Golf Course, the Four Seasons Sensei Lanai and several multi-family and single family residential units. The Four Seasons Sensei Lanai, previously known as The Four Seasons Lodge at Koele, was closed for renovations in 2015 and reopened in November 2019. The existing residential units are anticipated to remain.

Within Lanai City, the roadways are generally oriented within a rectangular grid network and serve low volumes of traffic. The roadways are generally narrow and are shared by both vehicular and pedestrian traffic due to the rural nature of the area. The following roadways serve as the major thoroughfares for traffic:

Kaumalapau Highway is generally an east-west, two-way, two-lane, undivided roadway. The roadway begins to the west at Kaumalapau Harbor and travels to the east where it serves Lanai Airport before terminating within Lanai City at its intersection with Lanai Avenue and Queens Street. The posted speed limit along Kaumalapau Highway is 20 miles per hour (mph) within Lanai City and increases to 45 mph to the west of the city.

Fraser Avenue is generally a north-south, two-way, two-lane, undivided roadway. The roadway begins to the south at its intersection with Kaumalapau Highway and travels to the north before terminating within the Kanepuu Apartments complex. Fraser Avenue provides access to Lanai Elementary and High School, churches, Dole Park and connections to restaurants and retail. The posted speed limit along the roadway is 20 mph.

Lanai Avenue is generally a north-south, two-way, two-lane, undivided roadway. The roadway begins to the south at its intersection with Akolu Place and travels to the north before terminating at its intersection with Keomuku Highway and the Iwiole Hale Apartments driveway. Lanai Avenue runs parallel to Fraser Avenue and provides connections to residential and commercial areas. The posted speed limit along the roadway is 20 mph.

8th Street is generally an east-west, two-way, two-lane, undivided roadway. The roadway begins to the west at its intersection with Fraser Avenue and travels to the east before terminating at its intersection with Lanai Avenue. 8th Street borders Dole Park and serves the main commercial area within Lanai City. Parking is provided along the northern side of the roadway. The posted speed limit along the roadway is 20 mph.

REF-478

KOELE PROJECT DISTRICT

AustinTsutsumi & ASSOCIATES, INC. Engineers & Surveyors

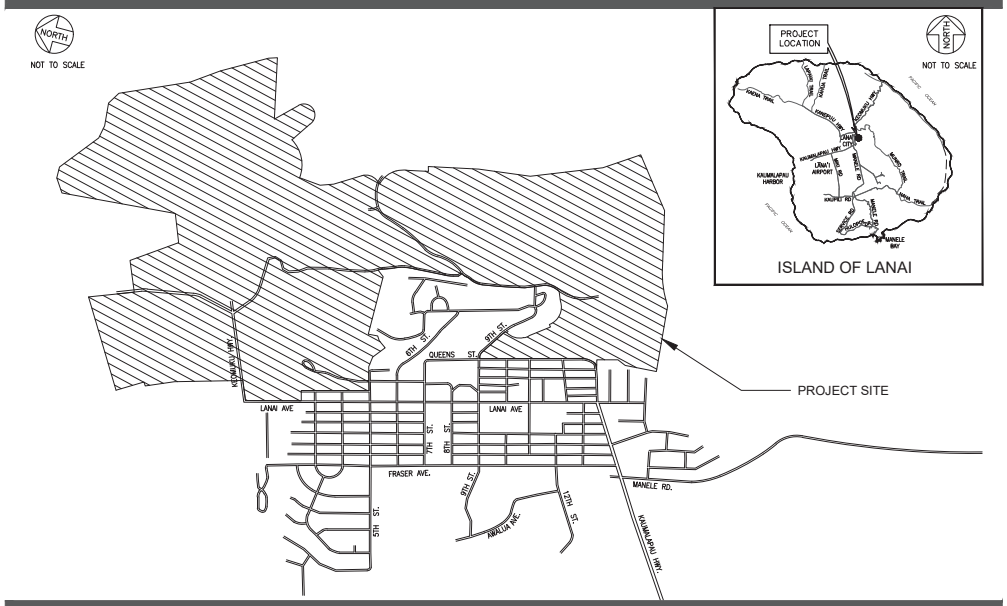
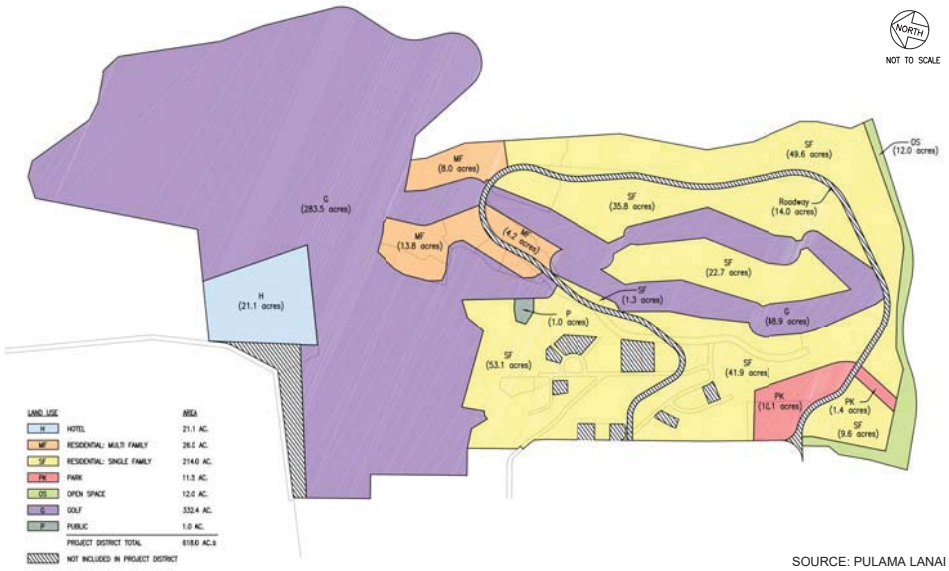


FIGURE 1 PROJECT LOCATION

KOELE PROJECT DISTRICT

AustinTsutsumi & ASSOCIATES, INC. Engineers & Surveyors



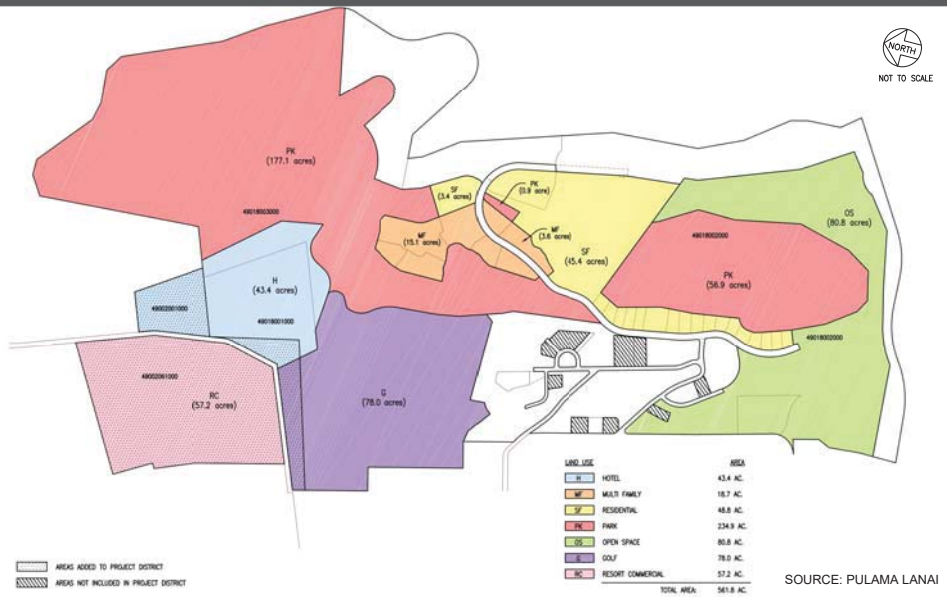
SOURCE: PULAMA LANAI

FIGURE 2 ORIGINAL KPD SITE PLAN

REF-479

KOELE PROJECT DISTRICT

AustinTsutsumi & ASSOCIATES, INC. Engineers & Surveyors



SOURCE: PULAMA LANAI

FIGURE 3 PROPOSED KPD SITE PLAN

AUSTIN, TSUTSUMI & ASSOCIATES, INC
CIVIL ENGINEERS • SURVEYORS

Ms. Keiki-Pua S. Dancil, Ph.D.
Pulama Lanai

February 16, 2021

Trip Generation Comparison

The Proposed KPD plans to remove approximately 56.2 acres from the project district and reallocate the land use districts. In addition, the updated plans increase the Park, Open Space and Hotel districts and minimize the Single Family Residential, Multi-Family Residential and Golf districts. The proposed plans also include a new Resort Commercial land use which is anticipated to provide additional services to the hotel guests and serve as an event venue. Table 1 compares the land use area breakdowns for the Original KPD and the Proposed KPD.

Table 1: Land Use Area Comparison (Acres)

Land Use	Original KPD	Proposed KPD
Single Family Residential	214.0	48.8
Multi-Family Residential	26.0	18.7
Hotel	21.1	43.4
Open Space	12.0	80.8
Public	1.0	0.0
Park	11.5	234.9
Golf Course	332.4	78.0
Resort Commercial	-	57.2
Total	**618.0**	**561.8**

Note: Although the Proposed KPD plans to remove 129.7 acres from the project district, additional acreage associated with the resort land use is proposed at the northwest corner of the Project.

The Proposed KPD is anticipated to reduce overall acreage and plans to incorporate larger park and open space components compared to the Original KPD plan. Most notably, the Proposed KPD is anticipated to significantly reduce the residential areas, which in turn is expected to reduce the amount of traffic generated by the project district. The Original KPD included 255 single-family units and 90 multi-family units while the Proposed KPD includes 57 single-family units and 53 multi-family units.

The Proposed KPD does include a new Resort Commercial land use not previously accounted for in the Original KPD; however, the Resort Commercial area is anticipated to generally be used by hotel guests as only a small museum and retail component are planned for the area in addition to the stables and tennis courts already within that area. As such, trips generated by the Resort Commercial area are expected to remain within the Resort Commercial and Hotel district and not impact traffic in Lanai City.

The Resort Commercial area is also planned to serve as an event venue for the Four Seasons Sensei Lanai. Roughly four (4) events with approximately 50 guests and two (2) events with approximately 150 guests are currently anticipated to occur per year. Because events are not expected to typically occur, traffic generated by the events are not included in the trip generation estimates for the Proposed KPD.

The ITE Trip Generation Manual, 10th Edition was used to determine the number of vehicular trips generated by the Original and Proposed KPD land uses, except for the Resort Commercial area as mentioned above. The rates selected were based on the project land use descriptions.

REF-480

Table 2 shows the trip generation rates and Table 3 shows the projected traffic generated by the Original and Proposed KPD for the weekday morning (AM), weekday afternoon (PM) and Saturday midday (WE) peak hours of traffic.

Table 2: Trip Generation Rate

Land Use (ITE Code – Setting)	Independent Variable	AM Peak Hour		PM Peak Hour		WE Peak Hour	
		Rate	% Enter	Rate	% Enter	Rate	% Enter
Single-Family Detached Housing (210 – General Urban/Suburban)	Dwelling Units	[a]	25%	[b]	63%	[c]	54%
Multi-Family Low-Rise Housing (220 – General Urban/Suburban)	Dwelling Units	[d]	23%	[e]	63%	[f]	54%[1]
Hotel[2] (310 – General Urban/Suburban)	Rooms	-	-	-	-	[g]	56%
Resort Hotel (330 – General Urban/Suburban)	Rooms	0.32[3]	72%	0.41[3]	43%	-	-
Public Park (411 – General Urban/Suburban)	Acres	0.02	59%	[h]	55%	[i]	55%
Golf Course (430 – General Urban/Suburban)	Acres	0.19	74%	0.28	34%	0.28[4]	34%[4]

[a] LN(T)=0.71*LN(X)+4.80 [d] LN(T)=0.95*LN(X)-0.51 [g] T=0.69(X)+4.32
[b] LN(T)=0.96*LN(X)+0.20 [e] LN(T)=0.89*LN(X)-0.02 [h] T=0.06(X)+22.60
[c] T=0.84(X)+17.99 [f] T=1.08(X)-33.24 [i] T=0.20(X)+26.40

Notes:
1. % entering not available for WE peak hour; based on WE data for single-family detached housing.
2. Hotel land use used for WE peak hour in lieu of resort hotel data.
3. Trip rate used instead of best fit line due to low/negative trip generation.
4. No WE data available for golf course land use; WE peak hour based on PM peak hour.

Table 3: Project Trip Generation Comparison

	Land Use (ITE Code)	Variable	AM Peak Hour			PM Peak Hour			WE Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
Original KPD	Single-Family Detached Housing (210)	255 Units	47	139	186	158	92	250	126	107	233
	Multi-Family Low-Rise Housing (220)	90 Units	10	34	44	34	20	54	35	29	64
	Hotel (310)	250 Rooms	-	-	-	-	-	-	99	78	177
	Resort Hotel (330)	250 Rooms	58	22	89	44	59	103	-	-	-
	Public Park (411)	11.5 Acres	1	0	1	13	11	24	16	13	29
	Golf Course (430)	332.4 Acres	47	17	64	32	62	94	32	62	94
	Total		163	212	375	281	244	525	308	289	597
Proposed KPD	Single-Family Detached Housing (210)	57 Units	12	34	46	38	22	60	36	30	66
	Multi-Family Low-Rise Housing (220)	53 Units	6	21	27	21	13	34	13	11	24
	Hotel (310)	96 Rooms	-	-	-	-	-	-	40	31	71
	Resort Hotel (330)	96 Rooms	22	9	31	17	23	40	-	-	-
	Public Park (411)	234.9 Acres	3	2	5	20	17	37	41	33	74
	Golf Course (430)	78.0 Acres	11	4	15	7	15	22	7	15	22
	Total		54	70	124	103	90	193	137	120	257
	Change in Trips		**(109)**	**(142)**	**(251)**	**(178)**	**(154)**	**(332)**	**(171)**	**(169)**	**(340)**
	% Change in Trips		**-67%**	**-67%**	**-67%**	**-63%**	**-63%**	**-63%**	**-56%**	**-58%**	**-57%**

Based on Table 3 above, the Original KPD would have generated approximately 375(525)[597] total trips during the AM(PM)[WE] peak hours of traffic while the Proposed KPD is anticipated to generate 124(193)[257] total trips during the AM(PM)[WE] peak hours of traffic. This correlates to an approximately 67%(63%)[59%] decrease in project district trip generation during the AM(PM)[WE] peak hours.

REF-481

Proposed KPD Impacts

The impacts of the Original KPD on the Lanai City roadway network were included in the Lanai City Traffic Circulation Plan Traffic Impact Study, dated October 4, 1991, hereinafter referred to as the "Original TIAR." The Original TIAR, studied the following four (4) intersections:

- Kaumalapau Highway/Fraser Avenue
- Kaumalapau Highway/Lanai Avenue
- 8th Street/Lanai Avenue
- 8th Street/Fraser Avenue

The above intersections were studied as they were identified as major intersections that currently or are anticipated to serve the highest volumes through Lanai City. All four (4) intersections are currently unsignalized with two-way stop controls.

The Original TIAR includes traffic generated by various developments proposed on the island. Trip generation for the Original KPD in the Original TIAR is limited to 275 single family residential units and 100 multi-family units as well as the 250-room Koele Lodge (assumed as a 148-room expansion at the time of the report). The Original TIAR did not include trip generation for the golf course land use as the course was open and operational at the time of data collection. Based on the trip generation included in the Original TIAR, the Proposed KPD is still anticipated to result in reduced trip generation compared to the Original KPD. See Table 4 for the trip generation from the Original TIAR.

Table 4: Original TIAR and Proposed KPD Trip Generation Comparison

Independent Variable	AM Peak Hour			PM Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
Original TIAR (Includes Single Family, Multi-Family and Hotel)	125	218	343	288	186	474
Proposed KPD	54	70	124	103	90	193

The Original TIAR evaluated intersection movements based on a Level of Service (LOS). LOS is a qualitative measure used to describe the conditions of traffic flow at intersections, with values ranging from free-flow conditions at LOS A to congested conditions at LOS F. LOS D or better is generally considered acceptable for major movements.

Accounting for all the proposed developments on Lanai, the Original TIAR anticipated all studied intersections would operate with little to no delay and all movements at LOS B or better during the AM and PM peak hours of traffic. Even with the proposed developments, the existing

roadway network was anticipated to handle the increase in traffic from new developments due to the low existing traffic volumes. Note that the Original TIAR did not study the WE peak hour of traffic. However, based on traffic count data collected by the State of Hawaii Department of Transportation (HDOT) within Lanai City, WE peak hour traffic is lighter than the PM peak hour and is expected to operate similar to or better than the PM peak.

Because the Proposed KPD plans to significantly reduce the amount of traffic generated by the project district, it is anticipated that the major intersections in Lanai City will operate similar to or better than projections using the Original KPD within the Original TIAR. Because the Proposed KPD is anticipated to have a reduced impact to traffic compared to the Original KPD, an updated Traffic Impact Analysis Report (TIAR) is not expected to be required for approval of the Proposed KPD.

Conclusions

The following are the conclusions of the Traffic Assessment study:

- The Proposed KPD plans to reduce the overall project district acreage compared to the Original KPD.
- The Proposed KPD is anticipated to generate significantly lower traffic volumes than the Original KPD.
    - An approximate decrease of 67%(63%)[57%] of total project-generated trips is expected with the updated plan during the AM(PM)[WE] peak hours of traffic.
- Based on the Original TIAR, the major intersections within Lanai City are anticipated to operate with all movements at LOS B or better with little to no delay during the AM and PM peak hours of traffic with all proposed developments on Lanai. Although not studied, the WE peak hour is expected to operate similar to or better than the PM peak hour.
- Because the Proposed KPD is expected to reduce the number of trips generated compared to the Original KPD, all major intersections are expected to operate at LOS B or better with little to no delay with the proposed land use changes for the project district.
- An updated TIAR is not expected to be required for approval of the Proposed KPD given the lower trip generation and decreased impacts to intersection operations.

REF-482

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS

Ms. Keiki-Pua S. Dancil, Ph.D.
Pulama Lanai

February 16, 2021

We appreciate the opportunity to prepare this Traffic Assessment for the Project. Should you require clarification, please contact me at (808) 533-3646.

Sincerely,

AUSTIN, TSUTSUMI & ASSOCIATES, INC.

By
MATT K. NAKAMOTO, P.E.
Vice President & Chief Transportation Engineer

Y:\2019\19-209 Koele PD\Report\210216 Koele Project District Final Draft TA.docx

REF-483

TRAFFIC ASSESSMENT ADDENDUM

APPENDIX I-1

REF-484

AUSTIN, TSUTSUMI & ASSOCIATES, INC. CIVIL ENGINEERS • SURVEYORS
CONTINUING THE ENGINEERING PRACTICE FOUNDED BY H. A. R. AUSTIN IN 1934

TERRANCE S. ARASHIRO, P.E.
ADRIENNE W.L.H. WONG, P.E., LEED AP
DEANNA M.R. HAYASHI, P.E.
PAUL K. ARITA, P.E.
ERIK S. KANESHIRO, L.P.L.S., LEED AP
MATT K. NAKAMOTO, P.E.
GARRETT K. TOKUOKA, P.E.

#19-209

December 2, 2021

Ms. Keiki-Pua S. Dancil, Ph.D.
Pulama Lanai
733 Bishop Street, Suite 1500
Honolulu, Hawaii 96813

Dear Ms. Dancil:

Subject: Addendum to Traffic Assessment for Koele Project District Lanai, Hawaii

Austin, Tsutsumi & Associates, Inc. (ATA) has prepared an addendum to the Traffic Assessment (TA), dated February 16, 2021, for the Koele Project District (hereinafter referred to as the "Proposed KPD") to address the October 5, 2021 comments provided by the State of Hawaii Department of Transportation (HDOT).

Project Description

The Proposed KPD will update the original Koele Project District boundaries by adding and removing land for a net reduction of 50.5 acres from the project district. Compared to the previously approved Koele Project District, the Proposed KPD will provide more park and open space uses and significantly reduce the amount of residential development. With the update, the following land uses and areas are proposed:

- Hotel – 45.4 acres
- Single Family Residential – 48.8 acres
- Multi-Family Residential – 18.7 acres
- Park – 234.9 acres
- Open Space – 80.8 acres
- Golf – 78.0 acres
- Resort Commercial – 75.4 acres

See Figure 1 for the Project Location and Figure 2 for the Proposed KPD site plan.

Study Area

The island of Lanai is generally rural in nature with the majority of residents living in the plantation town of Lanai City. The island currently supports a resident population of just over 3,000 with population growth anticipated to be limited in the future to preserve the island's rural character.

REPLY TO:
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OFFICES IN:
HONOLULU, HAWAII
WAILUKU, MAUI, HAWAII

Ms. Keiki-Pua S. Dancil, Ph.D.
Pulama Lanai

December 2, 2021

The Koele Project District is located adjacent to Lanai City and is accessible through the town via Keomuku Highway, 6th Street and 9th Street. Trips associated with the hotel/resort land uses are expected to access the Proposed KPD via Keomuku Highway with the remaining residential trips expected to access the site via 6th Street and 9th Street. The project district lands are currently occupied by the Cavendish Golf Course, the Four Seasons Sensei Lanai and several multi-family and single family residential units. The Four Seasons Sensei Lanai, previously known as The Four Seasons Lodge at Koele, was closed for renovations in 2015 and reopened in November 2019. The existing residential units are anticipated to remain.

Roadways

Within Lanai City, the roadways are generally oriented within a rectangular grid network and serve low volumes of traffic. The roadways are generally narrow and are shared by both vehicular and pedestrian traffic due to the rural nature of the area. The following roadways serve as the major thoroughfares for traffic:

Kaumalapau Highway is generally an east-west, two-way, two-lane, undivided State roadway. The roadway begins to the west at Kaumalapau Harbor and travels to the east where it serves Lanai Airport before terminating within Lanai City at its intersection with Lanai Avenue and Queens Street. The posted speed limit along Kaumalapau Highway is 20 miles per hour (mph) within Lanai City and increases to 45 mph to the west of the city.

Manele Road is generally a north-south, two-way, two-lane, undivided State roadway. The roadway begins to the north at its intersection with Kaumalapau Highway at the edge of Lanai City and travels to the south where it terminates at Hulupoe Bay. The posted speed limit along Manele Road is 35 mph in the vicinity of Lanai City.

Fraser Avenue is generally a north-south, two-way, two-lane, undivided County roadway. The roadway begins to the south at its intersection with Kaumalapau Highway and travels to the north before terminating within the Kanepuu Apartments complex. Fraser Avenue provides access to Lanai High and Elementary School, churches, Dole Park and connections to restaurants and retail. The posted speed limit along the roadway is 20 mph.

Lanai Avenue is generally a north-south, two-way, two-lane, undivided County roadway. The roadway begins to the south at its intersection with Akolu Place and travels to the north before terminating at its intersection with Keomuku Highway and the Iwiole Hale Apartments driveway. Lanai Avenue runs parallel to Fraser Avenue and provides connections to residential and commercial areas. The posted speed limit along the roadway is 20 mph.

8th Street is generally an east-west, two-way, two-lane, undivided County roadway. The roadway begins to the west at its intersection with Fraser Avenue and travels to the east before terminating at its intersection with Lanai Avenue. 8th Street borders Dole Park and serves the main commercial area within Lanai City. Parking is provided along the northern side of the roadway. The posted speed limit along the roadway is 20 mph.

REF-485

KOELE PROJECT DISTRICT

AustinTsutsumi & ASSOCIATES, INC. Engineers & Surveyors

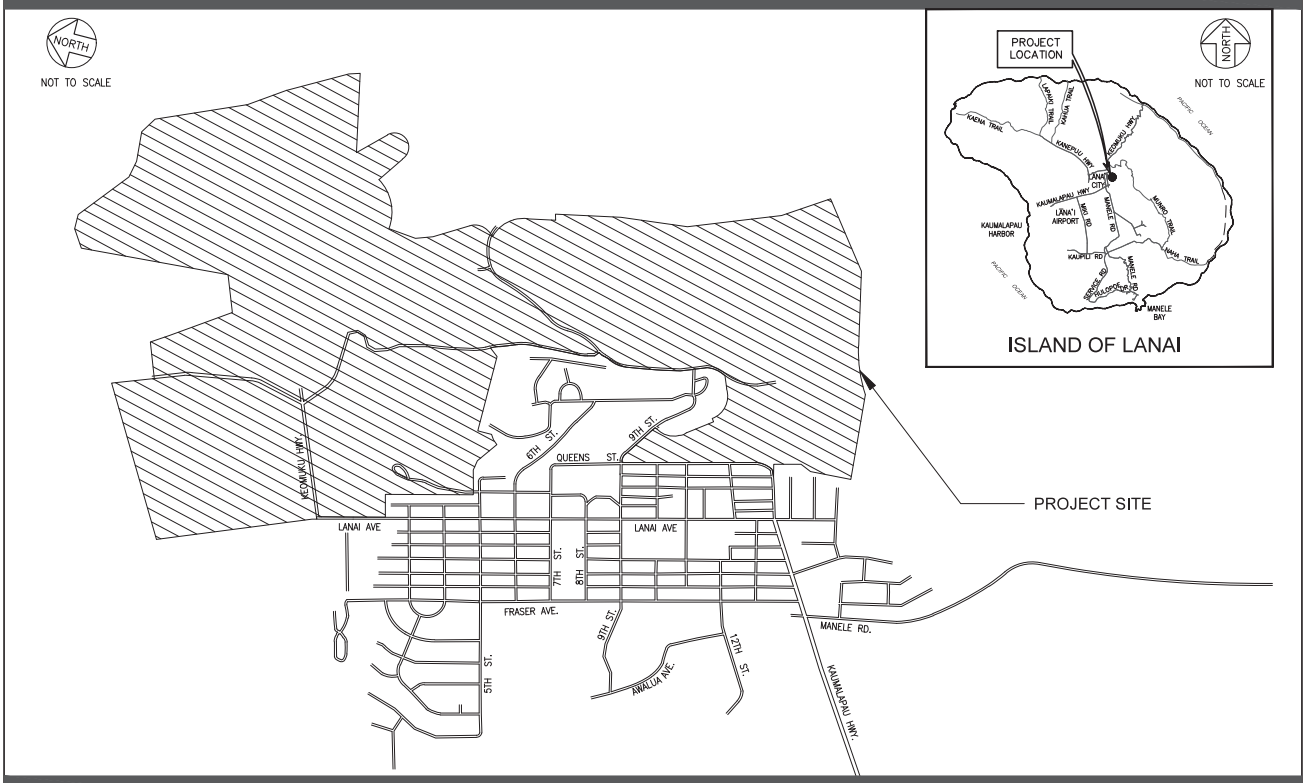
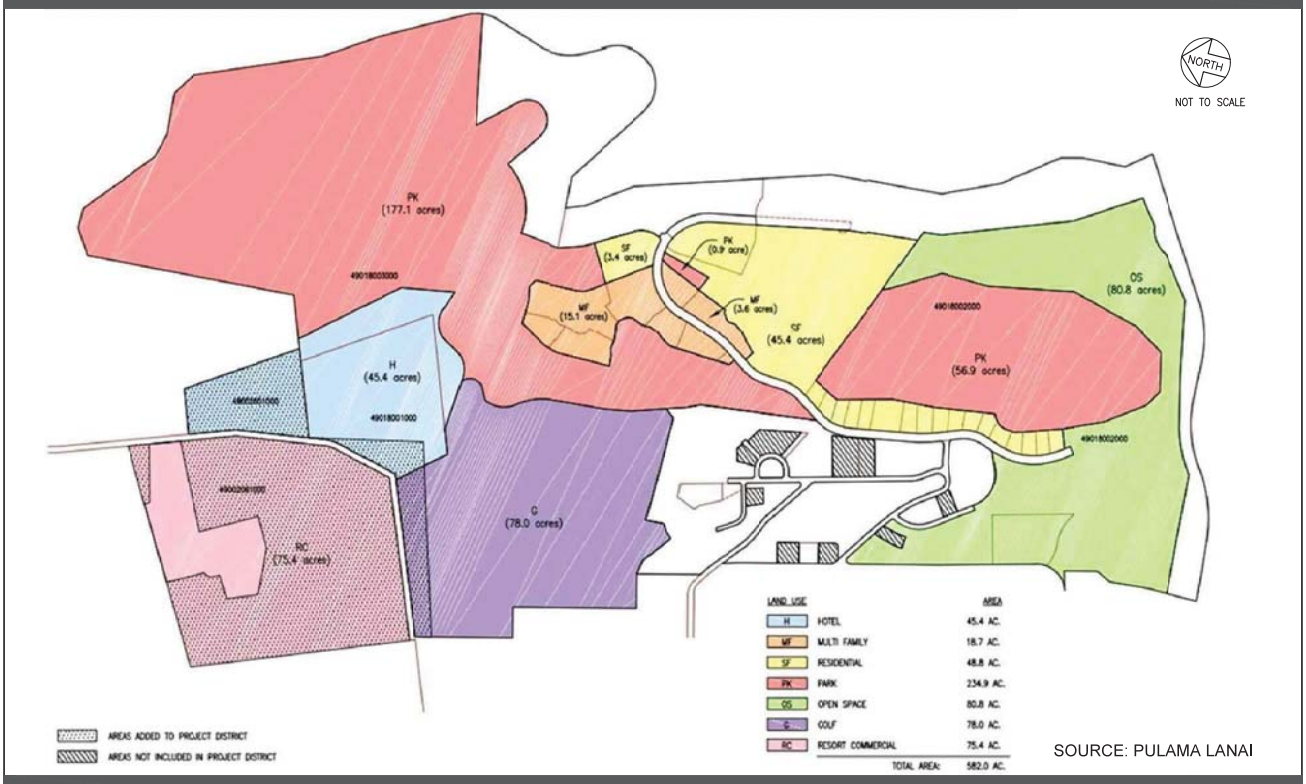


FIGURE 1

PROJECT LOCATION

KOELE PROJECT DISTRICT

AustinTsutsumi & ASSOCIATES, INC. Engineers & Surveyors



SOURCE: PULAMA LANAI

FIGURE 2

PROPOSED KPD SITE PLAN

REF-486

Ms. Keiki-Pua S. Dancil, Ph.D.
Pulama Lanai

December 2, 2021

Existing Multimodal Accessibility

Pedestrian Accessibility – Within Lanai City, sidewalks are provided along portions of Fraser Avenue, Lanai Avenue, Kaumalapau Highway, Ilima Avenue, 5th Street, 7th Street, 8th Street and Keomuku Highway. The sidewalks generally provide access to/from retail, restaurants, churches and schools located in the town center. See Figure 3 for the existing pedestrian facilities.

Bicycle Accessibility – Kaumalapau Highway from Manele Road to Kaumalapau Harbor is currently designated as a signed shared roadway per the HDOT Bike Plan Hawaii: Bikeway Map.[1] The bikeway map also identifies Manele Road from Kaumalapau Highway to Manele Bay as a proposed signed shared roadway. See Figure 3 for the existing and proposed bicycle facilities.

Transit Accessibility – There is currently no public transportation on the island of Lanai. Private transportation shuttles are available by reservation with service between the airport, car rental facilities and hotels.

Existing Traffic Conditions

In order to determine the impacts to State roadways within the vicinity of the Proposed KPD, the following intersections were evaluated:

- [1] Kaumalapau Highway/Manele Road
- [2] Kaumalapau Highway/Fraser Avenue
- [3] Kaumalapau Highway/Lanai Avenue

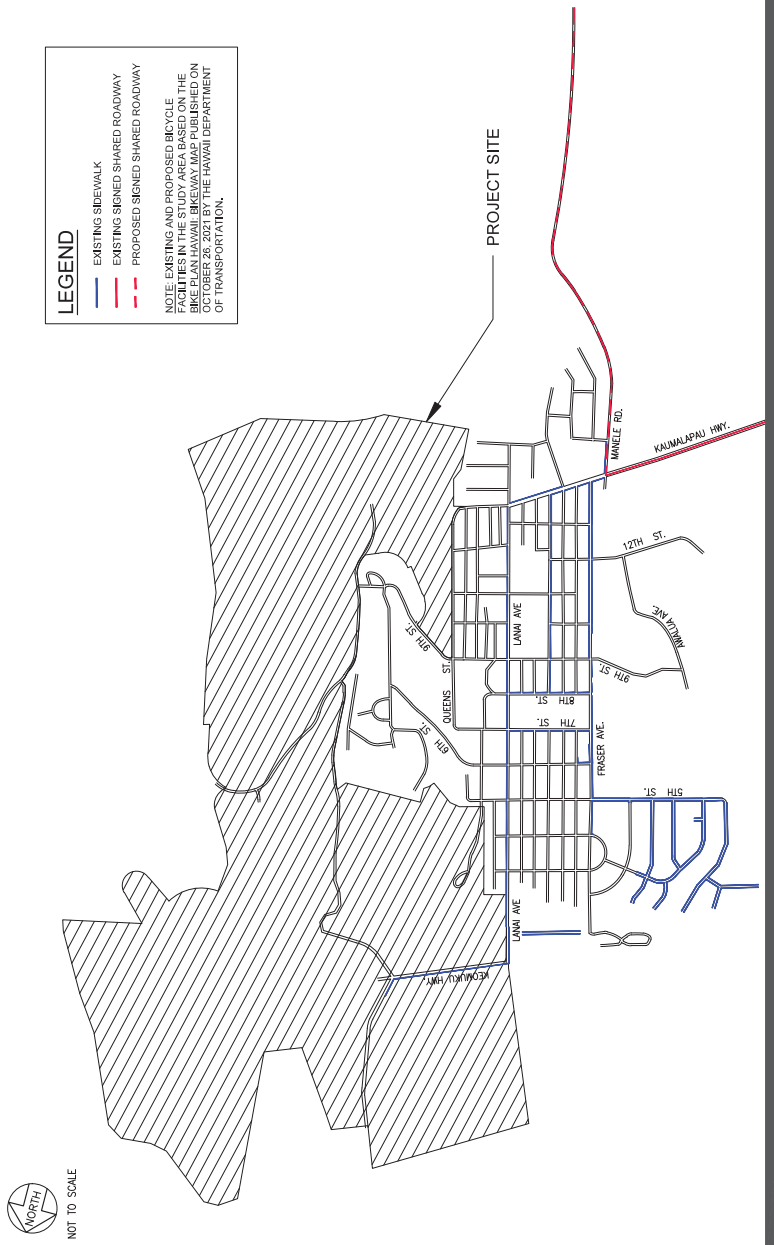
Traffic count data at the above intersections was estimated based on data provided in the Traffic Impact Analysis Report – Hokuao 201H Housing Project, Austin, Tsutsumi & Associates, Inc., dated April 8, 2019, and the Lanai City Traffic Circulation Plan Traffic Impact Study, Pacific Planning & Engineering, Inc., dated October 4, 1991. Traffic volumes from the studies were adjusted to existing conditions based on 2019 segment data collected by the HDOT along Kaumalapau Highway, Manele Road, Fraser Avenue and Lanai Avenue. Note that existing conditions were adjusted to reflect 2020 conditions prior to the start of the COVID-19 pandemic.

Based on the Traffic Impact Analysis Report – Hokuao 201H Housing Project, the morning (AM) peak hour of traffic occurs from 7:00 AM to 8:00 AM and the afternoon (PM) peak hour of traffic occurs from 2:00 PM to 3:00 PM. Existing traffic volumes along the study roadways are low during both peak hours of traffic due to the rural nature of Lanai and limited resident population. At the study intersections, existing volumes are no more than 350 vehicles during either peak hour and experience minimal conflict. Existing traffic volumes are shown in Figure 4.

[1] Hawaii Department of Transportation, Bike Plan Hawaii: Bikeway Map, October 26, 2021.

KOELE PROJECT DISTRICT

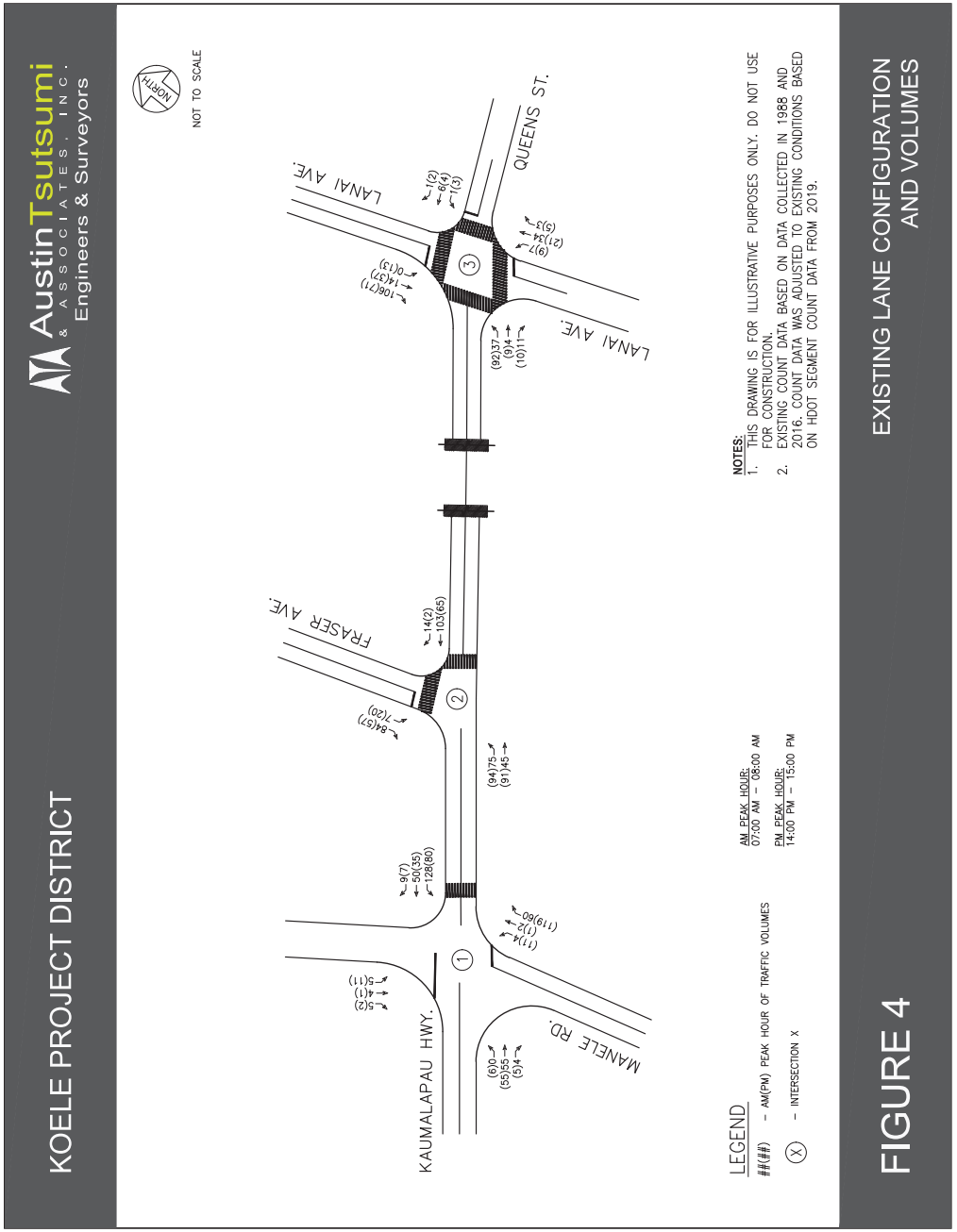
AustinTsutsumi & ASSOCIATES, INC.
Engineers & Surveyors



EXISTING MULTIMODAL ACCESSIBILITY

FIGURE 3

REF-487



AUSTIN, TSUTSUMI & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS

Ms. Keiki-Pua S. Dancil, Ph.D.
Pulama Lanai

December 2, 2021

Future Traffic Conditions

For the purposes of this study, full development of the Proposed KPD was assumed to occur over a 20-year horizon. Population growth and related traffic growth has generally been limited on Lanai as a result of limited housing and employment opportunities on the island. In order to account for future growth on the island as new opportunities are made available, traffic generated by planned developments by Pulama Lanai, the State and the County were added to the study intersections. A growth rate was not applied to existing traffic as any growth on the island is expected to be tied to new housing inventory and employment.

The following developments on Lanai are expected to be completed within the next 20 years and are shown in Figure 5:

- Hokuao 201H Housing Project – This development is planned for approximately 76 acres of land on the western boundary of Lanai City. The project is proposed by Pulama Lanai to provide a total of 150 single family homes for rent with 76 of those homes designated as affordable rentals. A public one-acre park and 1,500-square foot community center are also proposed with the project.
- Department of Hawaiian Home Lands (DHHL) Lanai Residence Lots Phase II – This development proposes to provide 80 additional lots for native Hawaiians living on Lanai. The project is located at the northwest corner of Lanai City.
- County of Maui Affordable Housing – Based on the Maui County Comprehensive Affordable Housing Plan, dated 2021, this development has the potential to provide 150 affordable units in the next five (5) years. The project is located to the west of the DHHL Lanai Residence Lots and Lanai High and Elementary School and borders Hokuao on its southern boundary.
- Miki Basin Industrial Park – This development is proposed by Pulama Lanai to provide 100 acres of light industrial land use and 100 acres of heavy industrial land use incrementally over a period of 30 years. The project site is located approximately 3.2 miles south of Kaumalapau Highway in the vicinity of the Lanai Airport and existing 20-acre Miki Basin Industrial Condominium.

The Institute of Traffic Engineers (ITE) Trip Generation Manual, 10th Edition was used to determine the number of vehicular trips generated by the planned background developments. For the Miki Basin Industrial Park, trips for specific planned land uses were generated based on information provided by Pulama Lanai. The trip generation rates are shown in Table 1 and projected background traffic is shown in Table 2. An origin-destination reduction was applied based on the assumption that new employees associated with the Miki Basin Industrial Park would live in the new housing developments given the extremely limited existing housing availability on the island.

Background development trips were distributed through the study intersections generally based on existing travel patterns. Note that the total background development trips shown in Table 2 reflect the overall trips generated and not the number of trips passing through the study intersections.

REF-488

Ms. Keiki-Pua S. Dancil, Ph.D.
Pulama Lanai

December 2, 2021

Although trips are generated for all of the planned housing developments, it should be noted that many households on Lanai are currently multi-generational households due to the limited existing housing inventory on the island. It is anticipated that new housing developments will allow existing residents in overcrowded living situations to move into their own homes and will likely generate lower trips than those projected in Table 2.

Table 1: Background Development Trip Generation Rates

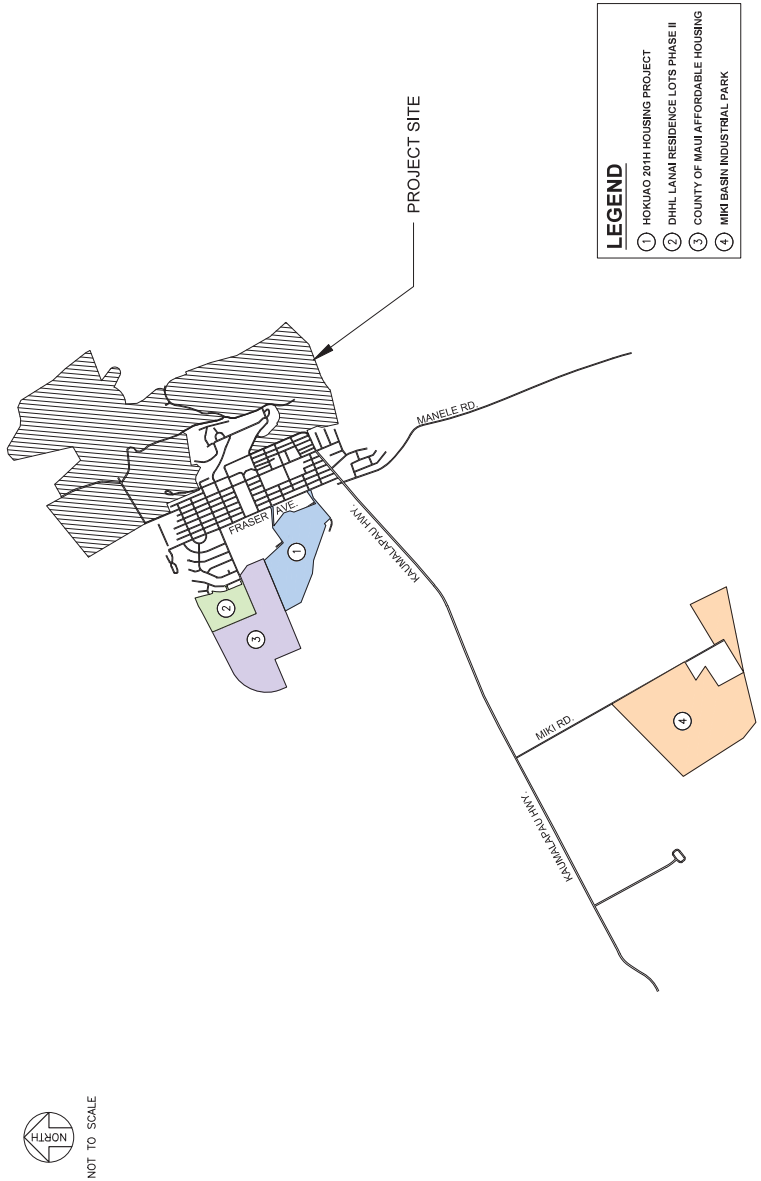
Land Use (ITE Code – Setting)	Independent Variable	AM Peak Hour		PM Peak Hour	
		Rate	% Enter	Rate	% Enter
Single-Family Detached Housing (210 – General Urban/Suburban)	Dwelling Units	[a]	25%	[b]	63%
Public Park (411 – General Urban/Suburban)	Acres	0.02	59%	[c]	55%
Manufacturing (140 – General Urban/Suburban)	Acres	[d]	90%	4.54	43%

[a] LN(T)=0.71*LN(X)+4.80 [c] T=0.06(X)+22.60

[b] LN(T)=0.96*LN(X)+0.20 [d] T=3.84(X)+16.16

Table 2: Background Development Trip Generation

Land Use (ITE Code)	Variable	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Hokuao 201H Housing Project							
Single-Family Detached Housing (210)	150 Units	28	84	112	95	55	150
County Park (411)	1.1 Acres	0	0	0	13	10	23
Hokuao 201H Housing Project Subtotal		28	84	112	108	65	173
DHHL Lanai Residence Lots Phase II							
Single-Family Detached Housing (210)	80 Units	16	46	62	52	31	83
DHHL Lanai Residence Lots Phase II Subtotal		16	46	62	52	31	83
County of Maui Affordable Housing							
Single-Family Detached Housing (210)	150 Units	28	84	112	95	55	150
County of Maui Affordable Housing Subtotal		28	84	112	95	55	150
Miki Basin Industrial Park							
Renewable Energy	127 Acres	10	0	10	0	10	10
Concrete Crushing/Asphalt Plant	27 Acres	35	0	35	0	35	35
Manufacturing (140)	26 Acres	104	12	116	51	68	119
Miki Basin Industrial Park Subtotal		149	12	161	51	113	164
Background Development Subtotal		221	226	447	306	264	570
Housing-Employment O-D Reduction		*-12*	*-149*	*-161*	*-113*	*-51*	*-164*
Total Background Development Trips		**209**	**77**	**286**	**193**	**213**	**406**



KOELE PROJECT DISTRICT

AustinTsutsumi & ASSOCIATES, INC. Engineers & Surveyors

FIGURE 5

BACKGROUND DEVELOPMENTS

REF-489

Ms. Keiki-Pua S. Dancil, Ph.D.
Pulama Lanai

December 2, 2021

Proposed KPD Impacts

As noted previously, the Proposed KPD will include Hotel, Single Family Residential, Multi-Family Residential, Park, Open Space, Golf Course and Resort Commercial land uses. Several of the land uses within the KPD have already been developed, and trips associated with these land uses are assumed to be included in the existing traffic volumes. The existing land uses and remaining future development land uses within the Proposed KPD are shown in Table 3.

The ITE Trip Generation Manual, 10th Edition was used to determine the number of vehicular trips generated by the Proposed KPD future development land uses with the exception of the Resort Commercial area. The Resort Commercial area is expected to be primarily used by hotel guests and therefore is not expected to generate trips outside of the Proposed KPD. The ITE rates selected were based on the project land use descriptions. Table 4 shows the trip generation rates and Table 5 shows the projected traffic generated by the Proposed KPD future development land uses during the AM and PM peak hours.

Although no immediate construction is currently planned within the Proposed KPD boundaries, based on the proposed land use density, the Proposed KPD may generate up to an additional 50(91) trips during the AM(PM) peak hours of traffic. Trips to/from the Proposed KPD were distributed through the study intersections generally based on existing travel patterns with approximately 47% of trips remaining in Lanai City, 40% to/from Manele and 13% to/from the airport/industrial areas.

With the Proposed KPD and planned background developments, traffic at the study intersections is expected to remain relatively light with no more than 650 vehicles projected at the study intersections during either peak hour of traffic. Although select turning movements are expected to be heavy in the future, because there are limited destinations on the island, the majority of trips follow the same routes and conflicting volumes to major turning movements are generally light. The Proposed KPD is anticipated to contribute 5%-10% of the future volumes at the study intersections.

Proposed KPD trip distributions are shown in Figure 6 and future volumes with the Proposed KPD and background developments are shown in Figure 7.

Table 3: Existing and Future Land Use Breakdown

Land Use	Existing Development	Future Development	Proposed KPD Total
Hotel	96 Rooms	-	96 Rooms
Single Family Residential	14 Units	43 Units	57 Units
Multi-Family Residential	33 Units	20 Units	53 Units
Park	30.0 Acres	204.9 Acres	234.9 Acres
Golf Course	78.0 Acres	-	78.0 Acres
Resort Commercial	-	75.4 Acres	75.4 Acres

Ms. Keiki-Pua S. Dancil, Ph.D.
Pulama Lanai

December 2, 2021

Table 4: Trip Generation Rates

Land Use (ITE Code – Setting)	Independent Variable	AM Peak Hour		PM Peak Hour	
		Rate	% Enter	Rate	% Enter
Single-Family Detached Housing (210 – General Urban/Suburban)	Dwelling Units	[a]	25%	[b]	63%
Multi-Family Low-Rise Housing (220 – General Urban/Suburban)	Dwelling Units	[c]	23%	[d]	63%
Public Park (411 – General Urban/Suburban)	Acres	0.02	59%	[e]	55%

[a] LN(T)=0.71*LN(X)+4.80
[b] LN(T)=0.96*LN(X)+0.20
[c] LN(T)=0.95*LN(X)-0.51
[d] LN(T)=0.89*LN(X)-0.02
[e] T=0.06(X)+22.60

Table 5: Project Trip Generation

Land Use (ITE Code)	Variable	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Single-Family Detached Housing (210)	43 Units	9	26	35	29	17	46
Multi-Family Low-Rise Housing (220)	20 Units	2	8	10	8	5	13
Public Park (411)	204.9 Acres	3	2	5	17	15	32
Total		14	36	50	54	37	91

REF-490

KOELE PROJECT DISTRICT

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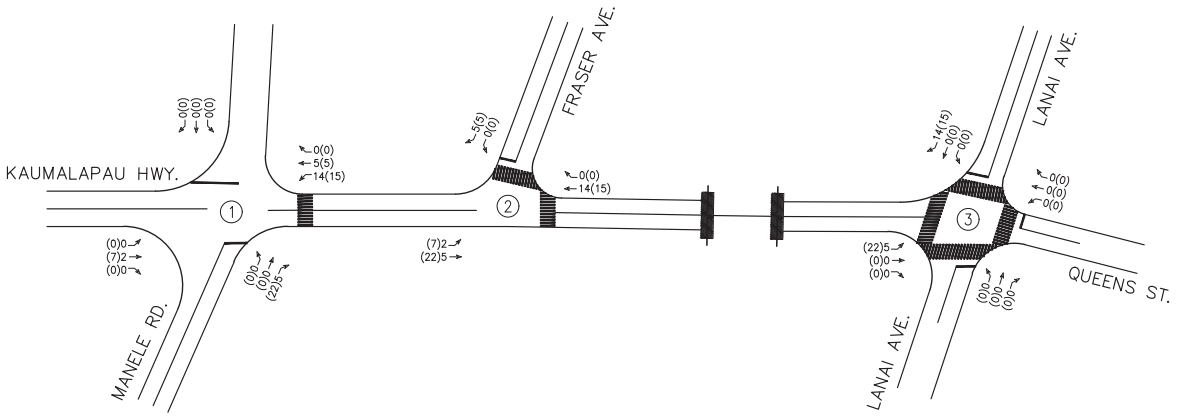
Engineers & Surveyors

NORTH

NOT TO SCALE



LEGEND

##(##) – AM(PM) PEAK HOUR OF TRAFFIC VOLUMES

(X) – INTERSECTION X

NOTES:
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FIGURE 6

PROPOSED KPD TRIP DISTRIBUTION

KOELE PROJECT DISTRICT

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NORTH

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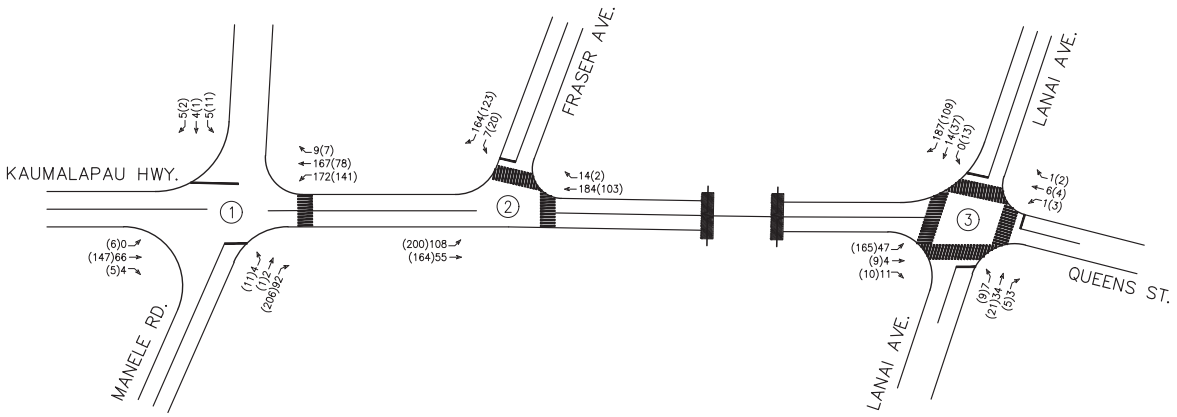

LEGEND

##(##) – AM(PM) PEAK HOUR OF TRAFFIC VOLUMES

(X) – INTERSECTION X

NOTES:
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FIGURE 7

FUTURE LANE CONFIGURATION AND VOLUMES

REF-491

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CIVIL ENGINEERS • SURVEYORS

Ms. Keiki-Pua S. Dancil, Ph.D.
Pulama Lanai

December 2, 2021

Lanai Trip Generation Adjustments

The trip generation for the background developments and Proposed KPD described in the previous sections are based on national rates published by ITE. However, because Lanai is a small island community with limited developed areas, traffic on Lanai generally does not follow national travel patterns. As a result, actual future traffic volumes at the study intersections are anticipated to be lower than the volumes shown in Figure 7.

To determine more realistic future volumes at the study intersections, existing overall trip generation for Lanai City was compared to ITE trip generation rates based on occupied housing units on Lanai. According to the 2020 Census, there are currently 1,174 occupied housing units. The existing trips based on volumes along Kaumalapau Highway between Fraser Avenue and Manele Road compared to the ITE trip generation volumes are shown in Table 6.

Based on the comparison of the existing volumes and the ITE trip generation volumes, the ITE trip generation rates may over-project external Lanai City trips by up to 50%. The trips generated for the background developments and the Proposed KPD as described in the previous sections were adjusted based on the percent differences between actual Lanai City trips versus the ITE trip generation rates to project more realistic future volumes that are consistent with the character of Lanai. The adjusted future volumes are shown in Figure 8.

With the adjusted lower projections, no more than 500 vehicles are projected at the study intersections during either peak hour of traffic. As noted with the higher projections, although select turning movements are expected to increase in the future, because there are limited destinations on the island, the majority of trips follow the same routes and conflicting volumes to major turning movements are generally light.

Table 6: Project Trip Generation

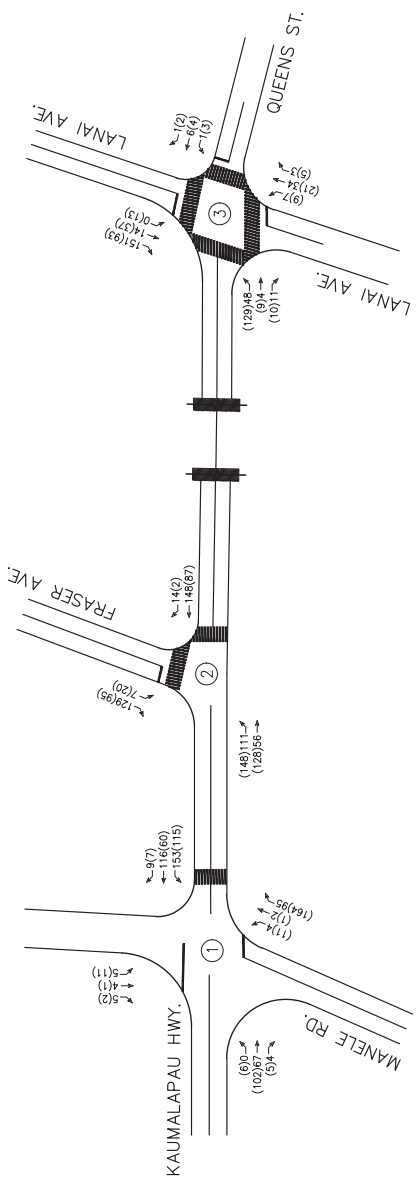
Land Use (ITE Code)	Variable	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
ITE Trip Generation [1]	1,174 Units	111	334	445	361	212	573
Existing Trips	1,174 Units	120	187	307	185	122	307
Volume Difference		9	-147	-138	-176	-90	-266
Percent Increase/Reduction		**8%**	**-44%**	**-31%**	**-49%**	**-42%**	**-46%**

Notes:
1. The ITE Trip Generation volumes reflect external Lanai City trips only, which was assumed to be 53% of the total trip generation based on existing trip distributions.

KOELE PROJECT DISTRICT

AustinTsutsumi & ASSOCIATES, INC.
Engineers & Surveyors

NOT TO SCALE



NOTES:
1. THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. DO NOT USE FOR CONSTRUCTION.
2. ADJUSTMENT APPLIED TO NEW DEVELOPMENT TRIP GENERATION BASED ON COMPARISON OF EXISTING VOLUMES AND ITE TRIP GENERATION VOLUMES.

LEGEND
##(##) – AM(PM) PEAK HOUR OF TRAFFIC VOLUMES
(X) – INTERSECTION X

FIGURE 8
ADJUSTED FUTURE LANE CONFIGURATION AND VOLUMES

REF-492

Ms. Keiki-Pua S. Dancil, Ph.D.
Pulama Lanai

December 2, 2021

Conclusions

The following are the conclusions of the Traffic Assessment Addendum study:

- The Proposed KPD plans to reduce the overall project district acreage as well as provide more park and open space and reduce residential development.
- Based on existing conditions, up to 350 vehicles travel through the study intersections during either peak hour of traffic and experience minimal conflicts or delays.
- Future traffic conditions on Lanai were projected based on the following planned developments: Hokuao 201H Housing Project, DHHL Lanai Residence Lots Phase II, County of Maui Affordable Housing and Miki Basin Industrial Park. The planned developments are expected to generate 286(406) trips during the AM(PM) peak hours of traffic.
- The Proposed KPD is expected to generate 50(91) trips during the AM(PM) peak hours of traffic which represents approximately 5%-10% of future volumes at the study intersections.
- Under future conditions, up to 650 vehicles are projected to travel through the study intersections during either peak hour of traffic and are anticipated to continue to experience minimal conflicts.
- Given the unique character of Lanai, adjustments can be applied to future development trip generation to obtain volumes more consistent with existing conditions on the island. Under the adjusted future conditions, up to 500 vehicles are projected to travel through the study intersections during either peak hour of traffic and are anticipated to continue to experience minimal conflicts.
- An updated TIAR is not expected to be required for approval of the Proposed KPD given the study intersections will continue to operate similar to existing conditions upon full development of the island of Lanai.

Ms. Keiki-Pua S. Dancil, Ph.D.
Pulama Lanai

December 2, 2021

We appreciate the opportunity to prepare this Traffic Assessment Addendum for the Project. Should you require clarification, please contact me at (808) 533-3646.

Sincerely,

AUSTIN, TSUTSUMI & ASSOCIATES, INC.

By

MATT K. NAKAMOTO, P.E.
Vice President & Chief Transportation Engineer

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REF-493

PRELIMINARY ENGINEERING REPORT

APPENDIX J

REF-494

KOELE PROJECT DISTRICT AMENDMENT

PRELIMINARY ENGINEERING REPORT

Koele, Lanai, Hawaii

April 9, 2021

PREPARED FOR:

Pūlama Lāna`i
733 Bishop Street Street, Suite 1500
Honolulu, Hawaii 96813

R. M. TOWILL CORPORATION
SINCE 1930

2024 North King Street., Suite 200
Honolulu, Hawaii 96819-3494
(808) 842-1133 Fax: (808) 842-1937
(RMTC Ref: 1-23443-00)

KOELE PROJECT DISTRICT AMENDMENT

PRELIMINARY ENGINEERING REPORT

April 9, 2021

Prepared for:

Pūlama Lāna`i
733 Bishop Street, Suite 1500
Honolulu, Hawaii 96813

KEVIN T. MENDES
LICENSED PROFESSIONAL ENGINEER
No. 8200-C
HAWAII, U.S.A.
Exp. 4-30-22

Prepared by:

R. M. Towill Corporation
2024 North King Street, Suite 200
Honolulu, Hawaii 96819

REF-495

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REF-496

1. GENERAL

1.1 Background

The Lanai Project District 2 (Koele), (Koele PD), as designated in the Lanai Community Plan and defined in the Maui County Zoning Code (Article IV, Chapter 19.71), is located in the central part of the island of Lanai, as shown on ***Figure 1-1***. The Koele PD is located northeast of Lanai City. Vacant and undeveloped land that was formerly used for pineapple cultivation and grazing is located to the north and west, and undisturbed mountainous land is located to the east.

The land use in the present Koele PD generally consists of golf course (The former Experience at Koele and the Cavendish Golf Course), hotel (Sensei Lanai), multi-family and single-family residential, park, and open space (see ***Figure 1-2***). The stables and tennis facility at Koele also have a designated land use as such. Pulama Lanai proposes to amend the Koele PD, including revising land use designations and boundaries, and removing residential land area (see ***Figure 1-3***). A summary of the existing and proposed Koele PD areas is provided below:

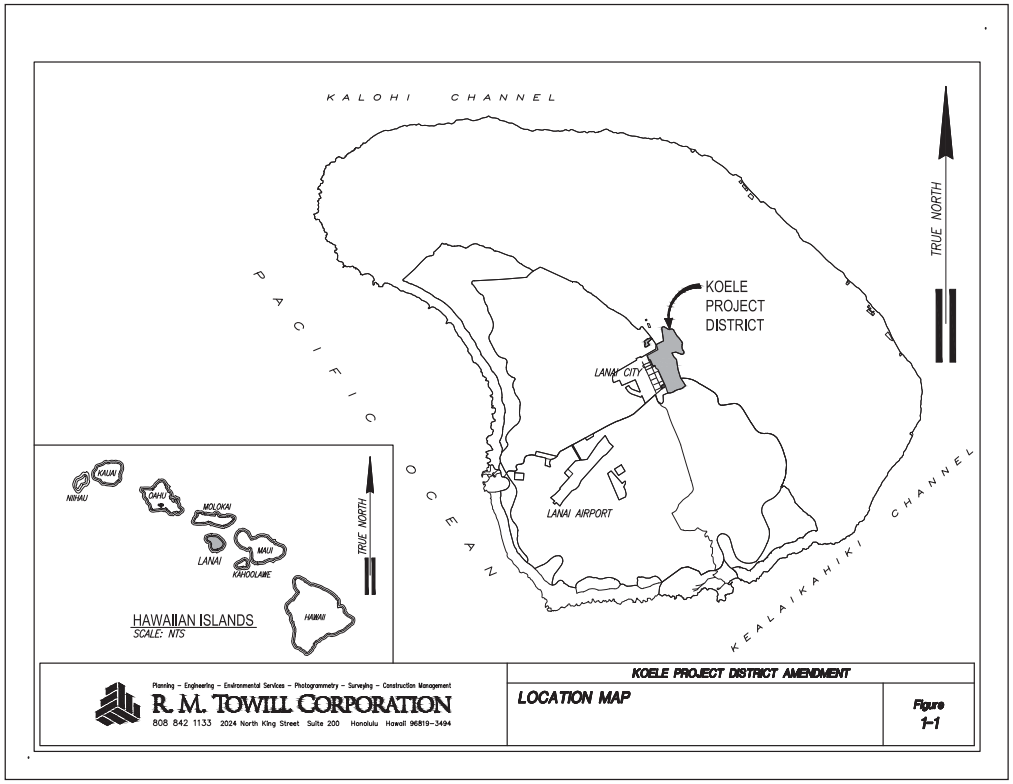
Table 1-1 : Land Use

Land Use	Existing Koele PD Area (ac)	Proposed Koele PD Area (ac)
Hotel	21.1	45.4
Multi-Family Residential	26.0	18.7
Single-Family Residential	214.0	48.8
Park	11.5	234.9
Open Space	12.0	80.8
Golf Course	332.4	[a] 78.0
Public	1.0	0.0
Stables and Tennis Courts	14.5	0.0
Resort/Commercial	0.0	75.4
TOTAL	**632.5**	**582.0**

a. Cavendish only

1.2 Objectives and Scope

This Preliminary Engineering Report provides a summary of the storm drainage, water, and wastewater impacts due to the proposed Koele PD amendment.



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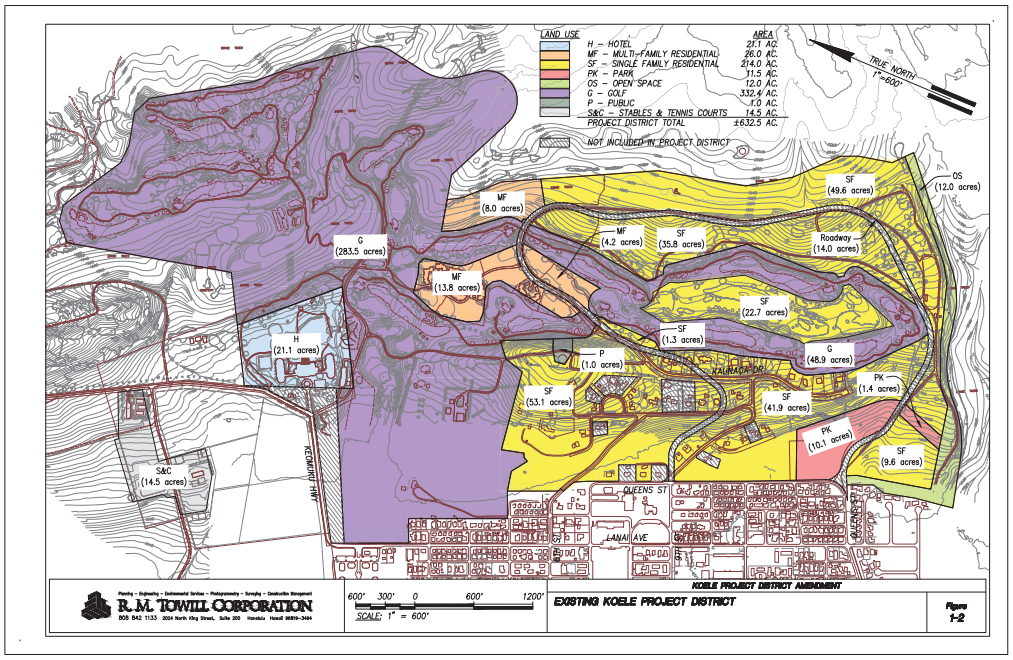
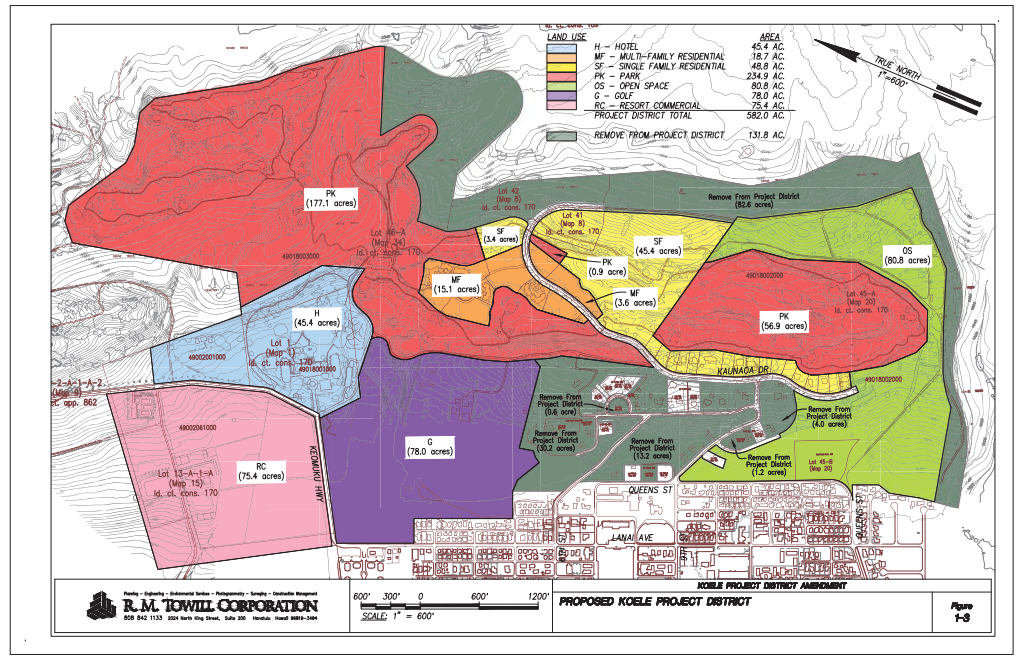

LAND USE
AREA
H – HOTEL 21.1 AC.
MF – MULTI-FAMILY RESIDENTIAL 26.0 AC.
SF – SINGLE FAMILY RESIDENTIAL 214.0 AC.
PK – PARK 11.5 AC.
OS – OPEN SPACE 12.0 AC.
G – GOLF 332.4 AC.
P – PUBLIC 1.0 AC.
S&C – STABLES & TENNIS COURTS 14.5 AC.
PROJECT DISTRICT TOTAL ±632.5 AC.
NOT INCLUDED IN PROJECT DISTRICT
TRUE NORTH
1"=600'
MF (8.0 acres)
G (283.5 acres)
MF (13.8 acres)
H (21.1 acres)
MF (4.2 acres)
SF (35.8 acres)
SF (49.6 acres)
OS (12.0 acres)
Roadway (14.0 acres)
SF (22.7 acres)
SF (1.3 acres)
P (1.0 acres)
G (48.9 acres)
PK (1.4 acres)
SF (53.1 acres)
SF (41.9 acres)
PK (10.1 acres)
SF (9.6 acres)
S&C (14.5 acres)
KAUNAOA DR
KEOMUKU HWY
QUEENS ST
LANAI AVE
KOELE PROJECT DISTRICT AMENDMENT
R. M. TOWILL CORPORATION
SCALE: 1" = 600'
EXISTING KOELE PROJECT DISTRICT
Figure 1-2


LAND USE
AREA
H – HOTEL 45.4 AC.
MF – MULTI-FAMILY RESIDENTIAL 18.7 AC.
SF – SINGLE FAMILY RESIDENTIAL 48.8 AC.
PK – PARK 234.9 AC.
OS – OPEN SPACE 80.8 AC.
G – GOLF 78.0 AC.
RC – RESORT COMMERCIAL 75.4 AC.
PROJECT DISTRICT TOTAL 582.0 AC.
REMOVE FROM PROJECT DISTRICT 131.8 AC.
TRUE NORTH
1"=600'
PK (177.1 acres)
Remove From Project District (82.6 acres)
SF (3.4 acres)
SF (45.4 acres)
OS (80.8 acres)
PK (0.9 acre)
MF (15.1 acres)
MF (3.6 acres)
H (45.4 acres)
PK (56.9 acres)
G (78.0 acres)
RC (75.4 acres)
Remove From Project District (0.6 acre)
Remove From Project District (30.2 acres)
Remove From Project District (13.2 acres)
Remove From Project District (4.0 acres)
Remove From Project District (1.2 acres)
KAUNAOA DR
KEOMUKU HWY
QUEENS ST
LANAI AVE
KOELE PROJECT DISTRICT AMENDMENT
R. M. TOWILL CORPORATION
SCALE: 1" = 600'
PROPOSED KOELE PROJECT DISTRICT
Figure 1-3

REF-498

2. EXISTING CONDITIONS

2.1 Storm Drainage

2.1.1 Site Characteristics

The Koele PD area is located on the leeward side of the mountains in the central area of Lanai. It is situated mauka of Lanai City at the foothills of the mountain range and varies in elevation from approximately 1,600 to 2,000 feet mean sea level. The topography is moderate below the breakline of the foothills. The unimproved mauka areas of the Koele PD are covered mainly with forest and tall trees, heavy brush, and tall grass.

The Koele PD is located along the north rim of the Palawai Basin (see ***Figure 2-1***). This basin is a large plateau area in the central portion of Lanai, approximately 4.5 miles in diameter. Runoff from the watershed inundates the lowest parts of the basin for prolonged periods during the rainy season.

2.1.2 Runoff Patterns

Overall runoff from the Koele PD is generally split between three drainage tributaries. Runoff from the southern portion of the Koele PD is conveyed by the Kapano Gulch south to two abandoned reservoirs. The runoff continues south to the Palawai Basin through a system of abandoned irrigation ditches. Runoff from the central and northwest portion of the Koele PD is conveyed by the Kaiholena/Iwiole/Paliamano Gulch west towards the shoreline and the Pacific Ocean. Runoff from the Northeast portion of the Koele PD is conveyed by the Nalo Gulch northeast towards the shoreline of the island and the Pacific Ocean

2.1.3 Drainage Infrastructure

The existing drainage improvements consists of swales, basins and drain lines in the golf course and along the roadways, with culverts ranging in size from 18 to 96 inches. The Experience at Koele Golf Course was designed to handle a majority of the drainage for the Koele PD. Smaller flows from offsite areas and for onsite development parcels is diverted via pipes and green drainage ways to the golf course, where they are conveyed, along with larger surface flows, by swales and contained in lakes/basins.

2.2 Water System

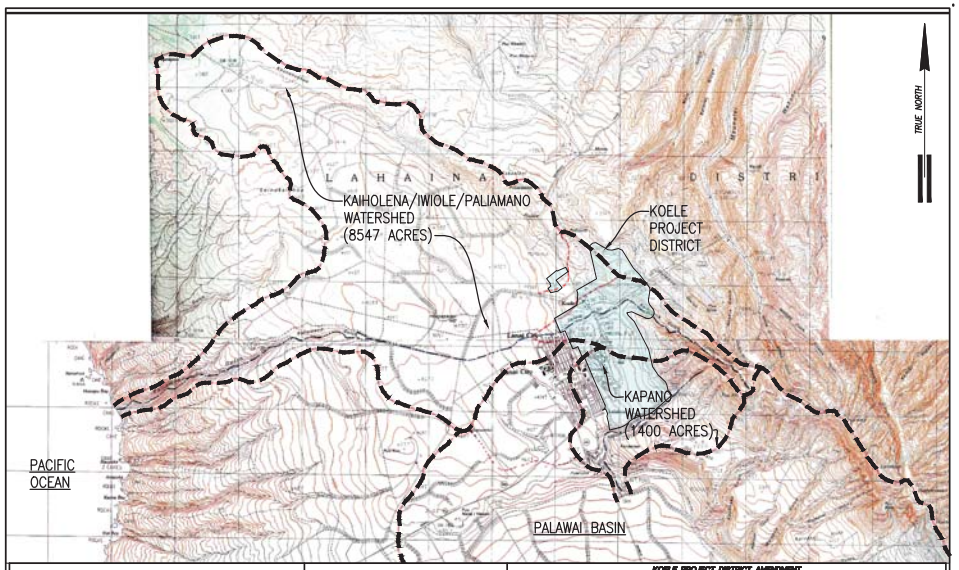
The water system for Lanai is owned and operated by the Lanai Water Company and is divided into nine (9) aquifer systems for the island. The Koele PD falls within the Leeward Aquifer.

Water transmission mains generally consist of 8-inch and 12-inch pipes. The primary supply of potable water for Lanai City is from the 750,000 gallon Koele Tank and 2.0 MG Lanai City Tank. The Koele Tank is supplied with water from Wells 3 and 8 and the Lanai City Tank is supplied by Well 6. The existing regional schematic is shown on ***Figure 2-2***.

2.3 Wastewater System

Wastewater generated by Koele PD is collected by 8-inch and 6-inch pipes and conveyed southwest towards the Lanai City Wastewater Treatment Plant.

REF-499



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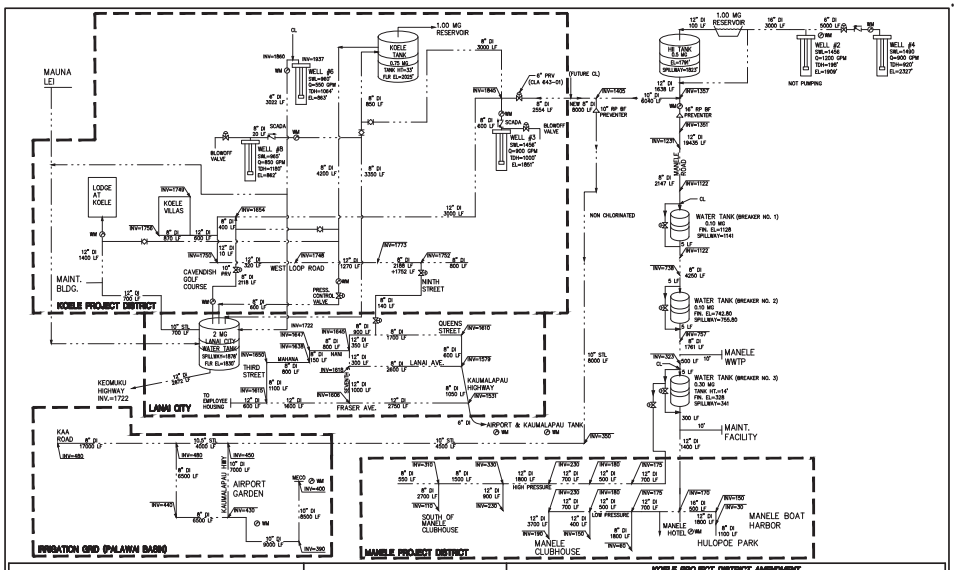
KOELE PROJECT DISTRICT AMENDMENT

OVERALL WATERSHED MAP

Figure 2-1



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KOELE PROJECT DISTRICT AMENDMENT

POTABLE WATER DISTRIBUTION SCHEMATIC

Figure 2-2

REF-500

3. APPROACH AND CRITERIA

3.1 Storm Drainage

3.1.1 Design Approach

The impacts to storm runoff due to the proposed Koele PD can be determined by comparing the calculated peak runoff rates and runoff volumes for both the existing and proposed PD land uses at full built-out conditions.

3.1.2 Hydrologic Criteria

The hydrologic criteria used in this report conform to the *Rules for the Design of Storm Drainage Facilities in the County of Maui* (County Drainage Standards).

Table 3-1 : Hydrologic Criteria

Method	Natural Resource Conservation Service (NRCS)			
100-Year, 24-Hour Rainfall	11-inches			
NRCS Runoff Curve Number				
	NRCS Soil Group			
Land Use	A	B	C	D
Wood or Forest Land – Good Cover	30	55	70	77
Wood or Forest Land – Fair Cover	36	60	73	79
Open Space, Park, Golf Course – Good Condition	39	61	74	80
Open Space, Park, Golf Course – Fair Condition	49	69	79	84
Pasture or Range Land – Fair Condition	49	69	79	84
Residential – 1/8 Acre Lot (MF)	77	85	90	92
Residential – 1/2 Acre Lot (SF)	54	70	80	85
Commercial	89	92	94	95

The runoff curve number is a parameter that reflects land use, ground cover, and soil type. A composite runoff curve number is calculated for each drainage tributary area by prorating the runoff curve numbers by physical area.

3.2 Water System

3.2.1 Design Approach

The impacts to water demand due to the proposed Koele PD can be determined by comparing the calculated water demands for both the existing and proposed zoning districts at full build-out conditions. With regard to the proposed Koele PD water demands, in lieu of maximum density calculations, a program was provided by Pulama Lanai which limits unit counts and developed areas.

3.2.2 Water Demand Criteria

The water demand criteria used in this report are described herein.

The existing PD "full build-out" unit counts for Hotel, Multi-Family Residential and Single Family Residential, and unit water demands are based on Castle & Cooke Resort's 2006 water supply and demand assessment as well as Pulama Lanai's limited program. The unit counts and unit water demands are shown in Table 3-2.

REF-501

Table 3-2
Existing Koele PD Unit Count

Use	Unit Count	Source
1. Hotel	250	CCR [a]
2. Multi-Family Residential	90	CCR [a]
3. Single Family Residential	255	CCR [a]

Existing Koele PD Water Demand Criteria

Use		Unit Demand	Unit	Source
1. Hotel				
	Hotel - Domestic	500	gpd/unit	CCR [a]
	Hotel - Irrigation	60,000	gpd	CCR [a]
2. Multi-Family Residential		600	gpd/unit	CCR [a]
3. Single Family Residential		600	gpd/unit	CCR [a]
4. Park		1,700	gpd/acre	CCR [a]
5. Open Space		0	gpd/acre	
6. Golf Course				
	Koele (Irrigation)	0	gpd/acre	[b]
	Koele (Comfort Station)	750	gpd	[c]
	Cavendish	20,000	gpd	CCR [a,d]
7. Public		1,700	gpd/acre	CCR [a]
8. Stables & Tennis Courts		2,500	gpd	[e]

gpd = gallons per day

a. Castle & Cooke Resort's 2006 water supply and demand assessment (Reference 3)
b. Experience at Koele Golf Course irrigation provided by effluent
c. Assumed use for comfort stations. Meter data not available
d. Experience at Koele Clubhouse water provided under Cavendish golf course
e. Assume demand, inclusive of irrigation. Meter data unavailable

The proposed PD "full build-out" unit counts and water demands are provided by Pulama Lanai's program as shown in Tables 3-3 and 3-4. The program for the proposed Resort/Commercial district includes approximate commercial building areas and event spaces that are used to calculate water demands.

Table 3-3 : Proposed Koele PD Unit Count

Use		Unit Count	Source
1. Hotel			
	Present Hotel	96	Current
	Future Hotel	TBD	
2. Multi-Family Residential			
	Existing Multi-Family Residential	33	Existing
	Proposed Single Family Dwellings within Multi-Family Residential	20	Pulama Lanai
3. Single Family Residential			
	Existing Single Family Residential	18	Existing
	Proposed Single Family Residential	[a] 39	Pulama Lanai
8. Resort/Commercial [b]		Area (sf)	
	Museum and Retail Shop	30,000	Pulama Lanai
	Special Event	22,500	Pulama Lanai

a. Proposed low density residential
b. Supersedes the Stables and Tennis Courts land use

REF-502

Table 3-4 : Proposed Koele PD Water Demand Criteria				
Use		Unit Demand	Unit	Source
1. Hotel				
	Present Hotel – Domestic	500	gpd/unit	CCR [a]
	Present Hotel - Irrigation	60,000	gpd	CCR [a]
	Future Hotel	74,000	gpd	CCR [a]
2. Multi-Family Residential		600	gpd/unit	CCR [a]
3. Single Family Residential		600	gpd/unit	CCR [a]
4. Park				
	Irrigation	0	gpd/acre	[b]
	Comfort Stations	1,500	gpd	[c]
5. Open Space		0	gpd/acre	
6. Golf Course		20,000	gpd	CCR [a]
7. Public		n/a		
8. Resort/Commercial				
	Museum and Retail Shop	6,000	gpd/acre	[d]
	Special Event	200	gpd	[e]
	Irrigation	2,800	gpd/acre	CCR [a]
	Stables & Tennis Courts	5,000	gpd	[f]
	Contingency	10,000	gpd	[g]
	Vacant Land to Remain	0	gpd/acre	

gpd = gallons per day

a. *Castle & Cooke Resort's 2006 water supply and demand assessment (Reference 3)*
b. *Assume irrigation provided by effluent, no potable water demand*
c. *Assumed use for comfort stations, including Adventure Center office*
d. *Demand for commercial per County of Maui, Department of Water Supply, Water System Standard*
e. *Assume 5 events/year x 500 capita x 25 gpd/capita = 171 gpd, say 200 gpd*
f. *Assume demand, inclusive of irrigation and potential barn renovations. Meter data unavailable*
g. *Assume future development*

To validate the unit demands used in this study, 2018 water meter data for the existing multi-family and single-family residential areas was reviewed. The 2018 single family residential average daily water demand is 441 gpd/unit and the multi-family residential average daily water demand is 592 gpd/unit. The 2018 water meter data appears to support the unit demands used as criteria in this study.

3.3 Wastewater System

3.3.1 Design Approach

The impacts to wastewater flow due to the proposed Koele PD can be determined by comparing the calculated wastewater flows for both the existing and proposed zoning districts at full build-out conditions. Proposed wastewater demands are based on Pulama Lanai's program which limits unit counts and developed areas.

3.3.2 Wastewater Flow Criteria

The wastewater flow criteria used in this report conform to the County Wastewater Reclamation Division standards.

Table 3-5 : Wastewater Flow Criteria			
Use	Unit Demand	Unit	Source
Hotel, Resort with Laundry	350	gpd/room	WRD [a]
Apartment/Condo	255	gpd/unit	WRD [a]
Residence, Subdivision	350	gpd/home	WRD [a]
Golf Clubhouse	25	gpd/golf rounds	WRD [a]
Comfort Station	5	gpd/use	WRD [a]

gpd = gallons per day

a. *County of Maui Wastewater Reclamation Division Wastewater Flow Standards*

Calculated wastewater flows for the land uses that are not included in the County Wastewater Reclamation Division Wastewater Flow Standards are based on estimated capita per day and estimated restroom usage.

REF-503

4. PROPOSED CONDITIONS

4.1 Storm Drainage

The calculated 100-year, 24-hour peak flows and runoff volumes for the existing Koele PD and proposed Koele PD, in the full build-out condition, are summarized below (See ***Figure 4-1*** and ***Figure 4-2***).

Table 4-1 : 100-Year, 24-Hour Peak Runoff

Drain Area	Area (ac)	Existing PD 100-Year, 24-Hour Peak Flow (cfs)	Proposed PD 100-Year, 24-Hour Peak Flow (cfs)	Change in 100-year, 24-Hour Peak Flow (cfs)
1	402.7	1,490	1,490	0
2	187.6	712	610	-102
3	610.3	1,505	1,471	-34
4	235.0	577	605	+28
5	47.4	132	132	0

Table 4-2 : 100 Year, 24-Hour Runoff Volume

Drain Area	Area (ac)	Existing PD 100-Year, 24-Hour Runoff Volume (ac-ft)	Proposed PD 100-Year, 24-Hour Runoff Volume (ac-ft)	Change in 100-year, 24-Hour Runoff Volume (ac-ft)
1	402.7	251.7	251.7	0.0
2	187.6	117.3	103.2	-14.1
3	610.3	376.4	371.3	-5.1
4	235.0	129.3	135.1	+5.8
5	47.4	23.3	23.3	0.0

Drain Areas 1 and 2 encompass the southern portion of the Koele PD, in which runoff is conveyed south to the Kapano Gulch and the Palawai Basin. The proposed Koele PD land use result in a 5 percent decrease in 100-year, 24-hour peak flow and a 4 percent decrease in runoff volume to the Palawai Basin.

Drain Areas 3 and 4 cover the central and northwest portion of the Koele PD, in which runoff is conveyed west to the Kaiholena/Iwiole/Paliamano Gulch and the ocean. The proposed Koele PD land use result in a 0.3 percent decrease in the 100-year, 24-hour peak flow and a 0.1 percent increase in runoff volume to the ocean.

The proposed Koele PD land use in Drain Area 4 results in a negligible increase in 100-year, 24-hour peak flow and runoff volume. However, this is not anticipated to have any adverse impacts to the unimproved pasture land downstream. It is expected that improvements in this district will include measures to mitigate increases in runoff as well as provide storm water quality treatment in accordance with County Standards.

Drain Area 5 covers the northeast portion of the Koele PD, in which runoff is conveyed northeast to the Nalo Gulch and the ocean. The proposed Koele PD land use result in no change to storm runoff values.

Overall, the proposed Koele PD has a positive impact to the Lanai City and downstream environments due to the reduction in runoff as a result of a reduction in developed land.

REF-504

4.2 Water Demands

The calculated water demands for the existing Koele PD and proposed Koele PD, in full build-out condition, are summarized below.

Table 4-3 : Water Demand Summary

Land Use	Existing Koele PD Average Daily Demand (gpd)	Proposed Koele PD Average Daily Demand (gpd) [a]
1. Hotel	185,000	182,000
2. Multi-Family Residential	54,000	31,800
3. Single-Family Residential	153,000	34,200
4. Park	19,550	1,500
5. Open Space	0	0
6. Golf Course [b]	20,750	20,000
7. Public	1,700	N/A
* Stables & Tennis Courts	2,500	N/A
8. Resort/Commercial	N/A	[c] 22,760
TOTAL	**436,500**	**292,260**

a. Proposed demands are based on Pulama Lanai program, which limits unit counts and developed area.
b. Clubhouse and Cavendish only. Irrigation for the Experience at Koele land is provided by R1 effluent.
c. Includes Stables & Tennis Courts demand which is superseded by Resort/Commercial land use.

Overall, the proposed Koele PD will cause a reduction in water demand, compared to the existing Koele PD, as a result of a reduction in developable land.

It should be noted, although approximately 49 acres of single-family residential land use district is proposed to be removed from the Koele PD (in the area between Kaunaoa Drive and Queens Street), there are 25 existing single-family dwellings that will continue to have water demands. The existing water demands are estimated to be 15,000 gpd.

4.3 Wastewater Flows

The calculated wastewater flows for the existing Koele PD and proposed Koele PD, in full build-out condition, are summarized below.

Table 4-4 : Wastewater Flow Summary

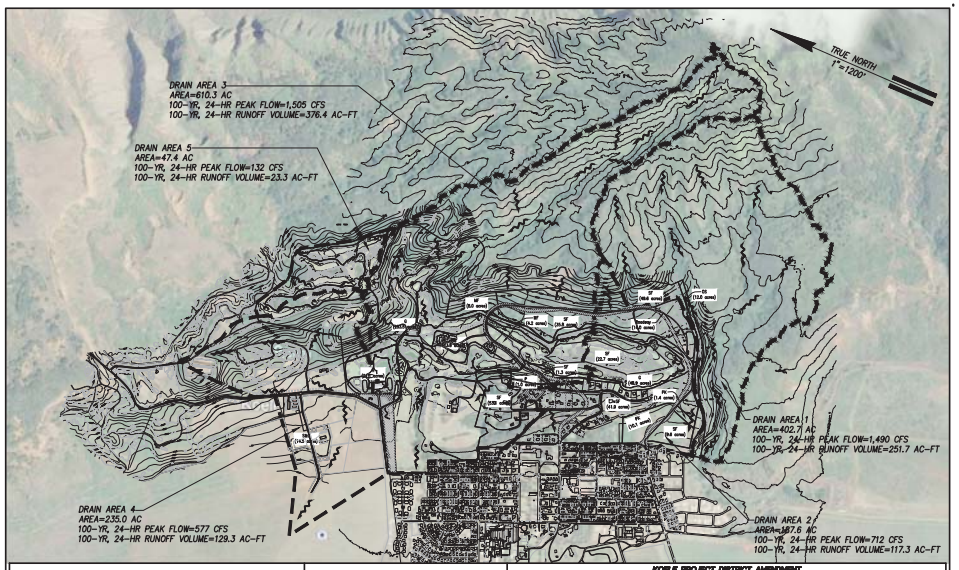
Land Use	Existing Koele PD Average Daily Demand (gpd)	Proposed Koele PD Average Daily Demand (gpd) [a]
1. Hotel	87,500	85,400
2. Multi-Family Residential	22,950	15,415
3. Single-Family Residential	89,250	19,950
4. Park (Comfort Stations)	[b] 0	1,500
5. Open Space	0	0
6. Golf Course	1,750	[c] 500
7. Public	[b] 0	N/A
* Stables & Tennis Courts	125	N/A
8. Resort/Commercial	N/A	[d] 11,100
TOTAL	**201,575**	**133,865**

a. Proposed demands are based on Pulama Lanai program, which limits unit counts and developed area.
b. No wastewater demand.
c. Cavendish only
d. Includes Stables & Tennis Courts demand which is superseded by Resort/Commercial land use.

Overall, the proposed Koele PD will cause a reduction in wastewater flows, compared to the existing Koele PD, as a result of a reduction in developable land.

It should be noted, although approximately 49 acres of single-family residential land use district is proposed to be removed from the Koele PD (in the area between Kaunaoa Drive and Queens Street), there are 25 existing single-family dwellings that will continue to have wastewater flows. This flow is estimated to be 8,750 gpd (350 gpd/unit).

REF-505



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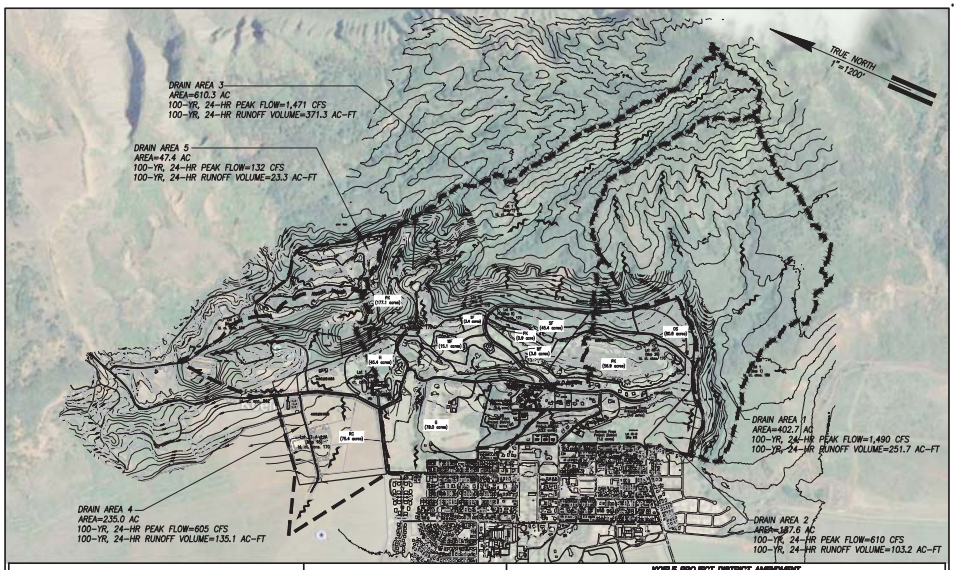
KOELE PROJECT DISTRICT AMENDMENT

EXISTING KOELE PROJECT DISTRICT
DRAIN AREA MAP

Figure 4-1



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KOELE PROJECT DISTRICT AMENDMENT

PROPOSED KOELE PROJECT DISTRICT
DRAIN AREA MAP

Figure 4-2

REF-506

5. REFERENCES

1. *Water System Standards*, 2002, Department of Water Supply – County of Maui.

2. *Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai,* United States Department of Agriculture, Soil Conservation Service, August 1972.

3. *DWS Amended Draft – Lana`i Island Water Use & Development Plan,* Department of Water Supply, February 25, 2011.

4. *For Public Record – Castle and Cooke Resorts LLC's Proposed Water Supply and Demand Plan for the Island of Lana`i,* [Prepared for Castle and Cooke Resorts, LLC], December 2004, R. M. Towill Corporation.

5. Preliminary Engineering Report Lanai City Auxiliary Wastewater Treatment Facility Lanai City, Hawaii, [Prepared for Lanai Company, Inc.], June 1993, Belt Collins & Associates.

6. Design Standards of the Department of Wastewater Management Volume I – Department of Wastewater Management City and County of Honolulu, State of Hawaii, July 1993.

7. Drainage Master Plan, Koele Resort Development, [Prepared for Castle & Cooke Resorts, LLC], R.M. Towill Corporation, July 2007.

8. Rules for the Design of Storm Drainage Facilities in the County of Maui, Department of Public Works and Waste Management County of Maui,

9. *Koele Master Plan*, February 2005, R. M. Towill Corporation.

10. Proposed Improvements at the Four Seasons Resort Lanai, Koele, Preliminary Engineering and Drainage Report, March 31, 2017, R. M. Towill Corporation

APPENDIX

Drainage Calculations

Water Demand Calculations

Wastewater Flow Calculations

KOELE PROJECT DISTRICT AMENDMENT

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KOELE PROJECT DISTRICT

DRAINAGE CALCULATIONS SUMMARY

Drain Area	Area	Existing PD Peak Flow 100-Year, 24-Hour	Proposed PD Peak Flow 100-Year, 24-Hour	**Change in Peak Flow 100-Year, 24-Hour**	Existing PD Runoff Volume 100-Year, 24-Hour	Proposed PD Runoff Volume 100-Year, 24-Hour	**Change in Runoff Volume 100-Year, 24-Hour**
	(ac)	(cfs)	(cfs)	**(cfs)**	(ac-ft)	(ac-ft)	**(ac-ft)**
1	402.7	1,490	1,490	**0**	251.7	251.7	**0.0**
2	187.6	712	610	**-102**	117.3	103.2	**-14.1**
3	610.3	1,505	1,471	**-34**	376.4	371.3	**-5.1**
4	235.0	577	605	**28**	129.3	135.1	**5.8**
5	47.4	132	132	**0**	23.3	23.3	**0.0**

KOELE PROJECT DISTRICT AMENDMENT

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EXISTING KOELE PROJECT DISTRICT

DRAINAGE CALCULATIONS BREAKDOWN (CALCULATIONS FOR IN-HOUSE USE)

Drain Area	Area (ac)	Land Use	Soil Classification	Curve Number	Composite Curve Number	Flow Length (ft)	Up Elev (ft)	Down Elev (ft)	Slope (ft/ft)	TR55 Tc (min)	TR55 100-Year 24-Hour (cfs)	TR55 Runoff Depth (in)
1	64.0	Wood or forest land - Good cover	B	55		100	2850	2800	0.50			
	3.4	Wood or forest land - Good cover	C	70		7600	2800	1500	0.17			
	323.6	Wood or forest land - Good cover	D	77								
	9.7	SF Residential - 1/2 acre lot	B	70								
	2.0	SF Residential - 1/2 acre lot	D	85								
	402.7				**73.3**					28.3	**1,490**	**7.5**
2	7.6	Wood or forest land - Good cover	B	55		100	2160	2135	0.25			
	2.9	Wood or forest land - Good cover	D	77		4700	2135	1630	0.11			
	6.9	Golf course - Good condition	B	61								
	19.7	Golf course - Good condition	D	80								
	11.8	Open space - Good condition	B	61								
	98.1	SF Residential - 1/2 acre lot	B	70								
	40.6	SF Residential - 1/2 acre lot	D	85								
	187.6				**72.9**					26.8	**712**	**7.5**
3	121.9	Wood or forest land - Good cover	B	55		100	2775	2750	0.25			
	16.4	Wood or forest land - Good cover	C	70		12200	2750	1760	0.08			
	180.6	Wood or forest land - Good cover	D	77								
	82.0	Golf course - Good condition	B	61								
	2.0	Golf course - Good condition	C	74								
	82.2	Golf course - Good condition	D	80								
	36.7	SF Residential - 1/2 acre lot	B	70								
	47.5	SF Residential - 1/2 acre lot	D	85								
	12.3	MF Residential - 1/8 acre lot	B	85								
	15.1	MF Residential - 1/8 acre lot	D	92								
	6.8	Commercial	B	92								
	6.8	Commercial	D	95								
	610.3				**71.8**					56.8	**1,505**	**7.4**
4	84.3	Wood or forest land - Good cover	B	55		100	2008	1996	0.12			
	18.1	Golf course - Good condition	B	61		6850	1996	1575	0.06			
	91.9	Pasture - Fair condition	B	69								
	26.8	Pasture - Fair condition	D	84								
	10.1	Commercial	B	92								
	3.8	Commercial	D	95								
	235.0				**66.5**					45.2	**577**	**6.6**
5	**47.4**	Golf course - Good condition	B	61		100	2034	2024	0.10			
					61.0	2200	2024	1920	0.05	27.7	**132**	**5.9**

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PROPOSED KOELE PROJECT DISTRICT
DRAINAGE CALCULATIONS BREAKDOWN (CALCULATIONS FOR IN-HOUSE USE)

Drain Area	Area (ac)	Land Use	Soil Classification	Curve Number	Composite Curve Number	Flow Length (ft)	Up Elev (ft)	Down Elev (ft)	Slope (ft/ft)	Tc (min)	TR55 100-Year 24-Hour (cfs)	TR55 Runoff Depth (in)
1	73.7	Wood or forest land - Good cover	B	55		100	2850	2800	0.50			
	3.6	Wood or forest land - Good cover	C	70		7600	2800	1500	0.17			
	325.4	Wood or forest land - Good cover	D	77								
	402.7				**72.9**					28.3	**1,490**	**7.5**
2	70.1	Wood or forest land - Good cover	B	55		100	2160	2135	0.25			
	41.7	Wood or forest land - Good cover	D	77		4700	2135	1630	0.11			
	18.4	Wood or forest land - Fair cover	B	60								
	8.0	Park - Good condition	B	61								
	20.8	Park - Good condition	D	80								
	28.6	SF Residential - 1/2 acre lot	B	70								
	187.6				**65.7**					26.8	**610**	**6.6**
3	130.5	Wood or forest land - Good cover	B	55		100	2775	2750	0.25			
	16.4	Wood or forest land - Good cover	C	70		12200	2750	1760	0.08			
	202.7	Wood or forest land - Good cover	D	77								
	20.3	Wood or forest land - Fair cover	B	60								
	57.2	Golf course - Good condition	B	61								
	21.3	Golf course - Good condition	D	80								
	31.5	Park - Good condition	B	61								
	2.0	Park - Good condition	C	74								
	38.1	Park - Good condition	D	80								
	12.2	SF Residential - 1/2 acre lot	B	70								
	58.3	SF Residential - 1/2 acre lot	D	85								
	10.5	Commercial	B	92								
	9.3	Commercial	D	95								
	610.3				**70.7**					56.8	**1,471**	**7.3**
4	82.8	Wood or forest land - Good cover	B	55		100	2008	1996	0.12			
	18.1	Park - Good condition	B	61		6850	1996	1575	0.06			
	81.1	Pasture - Fair condition	B	69								
	24.1	Pasture - Fair condition	D	84								
	22.4	Commercial	B	92								
	6.5	Commercial	D	95								
	235.0				**67.9**					45.2	**605**	**6.9**
5	**47.4**	Park - Good condition	B	61		100	2034	2024	0.10			
					61.0	2200	2024	1920	0.05	27.7	**132**	**5.9**

KOELE PROJECT DISTRICT AMENDMENT
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EXISTING KOELE PROJECT DISTRICT
WATER DEMAND SUMMARY

Land Use	Area (ac)	Units (ea)	Demand	Demand Unit	Ave. Daily Demand (gpd)	
1. Hotel	21.1	250			185,000	a,b
2. Multi-Family Residential	26.0	90	600	gpd/unit	54,000	a,b
3. Single Family Residential	214.0	255	600	gpd/unit	153,000	a,b
4. Park	11.5		1,700	gpd/acre	19,550	b
5. Open Space	12.0		0	gpd/acre	0	
6. Golf Course	332.4				20,750	c
7. Public	1.0		1,700	gpd/acre	1,700	b
8. Stables & Tennis Courts	14.5				2,500	d
TOTAL	**632.5**				**436,500**	

PROPOSED KOELE PROJECT DISTRICT
WATER DEMAND SUMMARY

Land Use	Area (ac)	Units (ea)	Ave. Daily Demand (gpd)	e
1. Hotel	45.4	96	182,000	
2. Multi-Family Residential	18.7	53	31,800	
3. Single Family Residential	48.8	57	34,200	
4. Park	234.9		1,500	
5. Open Space	80.8		0	
6. Golf Course (Cavendish)	78.0		20,000	
7. Public (Not Applicable)				
8. Resort/Commercial	75.4		22,760	
TOTAL PROPOSED PROJECT DISTRICT	**582.0**		**292,260**	

a. Units per Castle & Cooke Resort's 2006 water supply and demand assessment assuming full build-out
b. Demand per Castle & Cooke Resort's 2006 water supply and demand assessment
c. Clubhouse demands and Cavendish usage. Experience at Koele Golf Course irrigation provided by effluent.
d. Assume demand, inclusive of irrigation. Meter data unavailable.
e. Proposed demands are limited by Pulama Lanai program.

REF-509

KOELE PROJECT DISTRICT AMENDMENT
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EXISTING KOELE PROJECT DISTRICT
WATER DEMAND BREAKDOWN

Land Use	Area (ac)	Area (sf)	Units (ea)	Demand	Demand Unit	Ave. Daily Demand (gpd)	
1. Hotel							
Domestic	21.1		250	500	gpd/unit	125,000	*a,b*
Irrigation and Pools	0.0			n/a		60,000	*b*
Hotel Subtotal	21.1					185,000	
2. Multi-Family Residential	26.0		90	600	gpd/unit	54,000	*a,b*
3. Single Family Residential	214.0		255	600	gpd/unit	153,000	*a,b*
4. Park	11.5			1,700	gpd/acre	19,550	*b*
5. Open Space	12.0			0	gpd/acre	0	
6. Golf Course							
Koele (GC Irrigation)				0	gpd/acre	0	*c1*
Koele (Comfort Station)				n/a		750	*c2*
Cavendish / Koele (Clubhouse)				n/a		20,000	*b, c3*
Golf Course Subtotal	332.4					20,750	
7. Public	1.0			1,700	gpd/acre	1,700	*b*
8. Stables & Tennis Courts	14.5			n/a		2,500	*d*
TOTAL	**632.5**					**436,500**	

a. Units per Castle & Cooke Resort's 2006 water supply and demand assessment assuming full build-out
b. Demand per Castle & Cooke Resort's 2006 water supply and demand assessment
c1. Experience at Koele Golf Course irrigation provided by effluent.
c2. Assume use for comfort stations. Meter data unavailable.
c3. Clubhouse water provided under Canvendish
d. Assume demand, inclusive of irrigation. Meter data unavailable.

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PROPOSED KOELE PROJECT DISTRICT
WATER DEMAND BREAKDOWN

Land Use	Area (ac)	Area (sf)	Units (ea)	Demand	Demand Unit	Ave. Daily Demand (gpd)	
1. Hotel							
Present Hotel							
Domestic			96	500	gpd/unit	48,000	*e3*
Irrigation and Pools	21.1			60,000	gpd	60,000	*e3*
Present Hotel Subtotal	21.1					108,000	
Proposed Hotel	24.3					74,000	*e3*
Hotel Subtotal	45.4					182,000	
2. Multi-Family Residential							
Existing MF Units	7.8		33	600	gpd/unit	19,800	*e3*
Proposed SF Units w/in MF	10.9		20	600	gpd/unit	12,000	*e2, e3*
Multi-Family Subtotal	18.7		53			31,800	
3. Single Family Residential							
Existing SF Units	9.8		18	600	gpd/unit	10,800	*e3*
Proposed SF Units	39.0		39	600	gpd/unit	23,400	*e11*
Single Family Total	48.8		57			34,200	
4. Park							
Irrigation	234.9			0	gpd/acre	0	*e4*
Comfort Stations	0.0			n/a		1,500	*e5*
Park Subtotal	234.9					1,500	
5. Open Space	80.8			0	gpd/acre	0	
6. Golf Course (Cavendish)	78.0			n/a		20,000	*e3*
7. Public (Not Applicable)							

REF-510

KOELE PROJECT DISTRICT AMENDMENT
April 9, 2021

PROPOSED KOELE PROJECT DISTRICT
WATER DEMAND BREAKDOWN

Land Use	Area (ac)	Area (sf)	Units (ea)	Demand	Demand Unit	Ave. Daily Demand (gpd)	
8. Resort/Commercial							
Museum and Retail Shop	0.7	30,000		6,000	gpd/acre	4,200	*e2, e6*
Special Event	0.5	22,500		n/a		200	*e2, e7*
Irrigation (Museum/Retail/Special Event)	1.2	52,500		2,800	gpd/acre	3,360	*e2, e3*
Stables & Tennis Courts	14.5			n/a		5,000	*e8*
Contingency				n/a		10,000	*e2, e9*
Vacant Land to Remain	59.7			n/a		0	
Resort/Commercial Subtotal	75.4					22,760	
TOTAL PROPOSED PROJECT DISTRICT	**582.0**					**292,260**	
9. Omitted from PD (Water usage that will remain, although no longer in the PD)							
Exist. SF Residential Dwellings	0.0		25	600	gpd/unit	15,000	*e3, e10*
Net SF Residential Omitted from PD	49.2					0	*e10*
Net Golf, Res, Open Omitted from PD	82.6					0	*e10*
Omitted from PD Subtotal	131.8					15,000	
OVERALL TOTAL	**713.8**					**307,260**	

e2. Proposed demands are limited by Pulama Lanai program.
e3. Demand per Castle & Cooke Resort's 2006 water supply and demand assessment
e4. Assume irrigation provided by effluent, no potable water demand
e5. Assumed use for comfort stations
e6. Demand for commercial per County of Maui, Department of Water Supply, Water System Standard
e7. Assume 5 events/year x 500 capita x 25 gpd/capita = 171 gpd, say 200 gpd
e8. Assume demand, inclusive of irrigation and potential new barn. Meter data unavailable.
e9. Assume future development
e10. Located within the "remove from project district"
e11. Unit count limited to 1 dwelling per acre, per Pulama Lanai

KOELE PROJECT DISTRICT AMENDMENT
April 9, 2021

EXISTING KOELE PROJECT DISTRICT
WASTEWATER DEMAND SUMMARY

Land Use	Area (ac)	Units (ea)	Demand	Demand Unit	Ave. Daily Demand (gpd)	
1. Hotel	21.1	250	350	gpd/unit	87,500	*a,b*
2. Multi-Family Residential	26.0	90	255	gpd/unit	22,950	*a,b*
3. Single Family Residential	214.0	255	350	gpd/unit	89,250	*a,b*
4. Park	11.5		0	gpd/acre	0	
5. Open Space	12.0		0	gpd/acre	0	
6. Golf Course	332.4				1,750	*c*
7. Public	1.0		0	gpd/acre	0	
8. Stables & Tennis Courts	14.5	25	5	gpd/capita	125	*d*
TOTAL	**632.5**				**201,575**	

PROPOSED KOELE PROJECT DISTRICT
WASTEWATER DEMAND SUMMARY

Land Use	Area (ac)	Units (ea)	Ave. Daily Demand (gpd)	*e*
1. Hotel	45.4		85,400	
2. Multi-Family Residential	18.7	53	15,415	
3. Single Family Residential	48.8	57	19,950	
4. Park (Comfort Stations)	234.9		1,500	
5. Open Space	80.8		0	
6. Golf Course (Cavendish)	78		500	
7. Public (Not Applicable)	0.0		0	
8. Resort/Commercial	75.4		11,100	
TOTAL PROPOSED PROJECT DISTRICT	**582.0**		**133,865**	

a. Units per Castle & Cooke Resort's 2006 water supply and demand assessment assuming full build-out
b. Demand per County of Maui Wastewater Reclamation Division Wastewater Flow Standards
c. Experience at Koele and Cavendish Golf Course
d. Assume 25 capita per day
e. Proposed demands are limited by Pulama program

REF-511

KOELE PROJECT DISTRICT AMENDMENT
April 9, 2021

EXISTING KOELE PROJECT DISTRICT
WASTEWATER DEMAND BREAKDOWN

Land Use	Area (ac)	Area (sf)	Units (ea)	Demand	Demand Unit	Ave. Daily Demand (gpd)	
1. Hotel	21.1		250	350	gpd/unit	87,500	*a,b*
2. Multi-Family Residential	26.0		90	255	gpd/unit	22,950	*a,b*
3. Single Family Residential	214.0		255	350	gpd/unit	89,250	*a,b*
4. Park	11.5			0	gpd/acre	0	
5. Open Space	12.0			0	gpd/acre	0	
6. Golf Course							
Koele (Clubhouse/Comfort Station)			50	25	gpd/golf round	1,250	*b,c1*
Cavendish (Comfort Station)			50	10	gpd/golf round	500	*b,c1,c2*
Golf Course Subtotal	332.4					1,750	
7. Public	1.0			0	gpd/acre	0	
8. Stables & Tennis Courts	14.5		25	5	gpd/capita	125	*d*
TOTAL	**632.5**					**201,575**	

a. Units per Castle & Cooke Resort's 2006 water supply and demand assessment assuming full build-out
b. Demand per County of Maui Wastewater Reclamation Division Wastewater Flow Standards
c1. Assume 4 capita per hour from 7 am to 5 pm = 44 capita. Say 50 capita.
c2. Cavendish golf course includes comfort station only. Assume each patron uses comfort station twice
d. Assume 25 capita per day

KOELE PROJECT DISTRICT AMENDMENT
April 9, 2021

PROPOSED KOELE PROJECT DISTRICT
WASTEWATER DEMAND BREAKDOWN

Land Use	Area (ac)	Area (sf)	Units (ea)	Demand	Demand Unit	Ave. Daily Demand (gpd)	
1. Hotel							
Present Hotel	21.1		96	350	gpd/unit	33,600	*e1*
Proposed Hotel	24.3					51,800	*e3*
Hotel Subtotal	45.4					85,400	
2. Multi-Family Residential							
Existing MF Units	7.8		33	255	gpd/unit	8,415	*e1*
Proposed SF Units w/in MF	10.9		20	350	gpd/unit	7,000	*e1, e2*
Multi-Family Subtotal	18.7		53			15,415	
3. Single Family Residential							
Existing SF Units	9.8		18	350	gpd/unit	6,300	*e1*
Proposed SF Units	39.0		39	350	gpd/unit	13,650	*e1*
Single Family Total	48.8		57			19,950	
4. Park (Comfort Stations)	234.9		300	5	gpd/capita	1,500	*e1, e4*
5. Open Space	80.8			0	gpd/acre	0	
6. Golf Course (Cavendish)	78.0		50	10	gpd/golf round	500	*e1, e5, e6*
7. Public (Not Applicable)							
8. Resort/Commercial							
Museum and Retail Shop	0.7	30,000	150	5	gpd/capita	750	*e1, e2, e7*
Special Event	0.5	22,500		n/a		200	*e2, e8*
Stables & Tennis Courts	14.5		30	5	gpd/capita	150	*e1, e9*
Contingency				n/a		10,000	*e2, e10*
Vacant Land to Remain	59.7			n/a		0	
Resort/Commercial Subtotal	75.4					11,100	
TOTAL PROPOSED PROJECT DISTRICT	**582.0**					**133,865**	

REF-512

KOELE PROJECT DISTRICT AMENDMENT								
April 9, 2021								
PROPOSED KOELE PROJECT DISTRICT								
WASTEWATER DEMAND BREAKDOWN								
						Demand	Ave. Daily	
Land Use		Area	Area	Units	Demand	Unit	Demand	
		(ac)	(sf)	(ea)			(gpd)	
9. Omitted from PD (Wastewater flow that will remain, although no longer in the PD)								
	Exist. SF Residential Dwellings	0.0		25	350	gpd/unit	8,750	*e1, e11*
	Net SF Residential Omitted from PD	49.2					0	*e11*
	Net Golf, Res, Open Omitted from PD	82.6					0	*e11*
	Omitted from PD Subtotal	131.8					8,750	
	OVERALL TOTAL	**713.8**					**142,615**	
	e1. Demand per County of Maui Wastewater Reclamation Division Wastewater Flow Standard							
	e2. Proposed demands are limited by Pulama Lanai program.							
	e3. Assume 70% of proposed hotel water demand, per ratio of unit wastewater demand to unit water demand (350 gpd / 500 gpd = 70%)							
	e4. Assume 1 capita per acre park = 235 capita, say 300 capita							
	e5. Assume 4 capita per hour from 7 am to 5 pm = 44 capita. Say 50 capita.							
	e6. Cavendish golf course includes comfort station only. Assume each patron uses comfort station twice							
	e7. Assume 1 capita per 200 sf office per County of Maui Wastewater Reclamation Division Wastewater Flow Standards							
	e8. Assume 5 events/year x 500 capita x 25 gpd/capita = 171 gpd, say 200 gpd							
	e9. Assume 30 capita per day, inclusive of new barn							
	e10. Assume future development							
	e11. Located within the "remove from project district"							

REF-513

HAWAI‘I STATE PLAN

APPENDIX

K

Analysis of the Project's Conformance to the Goals, Objectives, and Policies of the Hawai'i State Plan

Chapter 226, HRS, also known as the Hawai'i State Plan, is a long-range comprehensive plan which serves as a guide for the future long-term development of the State by identifying goals, objectives, policies, and priorities, as well as implementation mechanisms. The Plan consists of three (3) parts. Part I includes the Overall Theme, Goals, Objectives, and Policies; Part II includes Planning, Coordination, and Implementation; and Part III establishes Priority Guidelines. Inasmuch as Part II of the State Plan covers its administrative structure and implementation process, discussion of the proposed project's applicability to Part II is not appropriate. Below is an analysis of the project's applicability to Part I and Part III of the Hawai'i State Plan.

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
HRS 226-1: Findings and Purpose			
HRS 226-2: Definitions			
HRS 226-3: Overall Theme			
HRS 226-4: State Goals. In order to guarantee, for the present and future generations, those elements of choice and mobility that insure that individuals and groups may approach their desired levels of self-reliance and self determination, it shall be the goal of the State to achieve: (1) A strong, viable economy, characterized by stability, diversity, and growth, that enables the fulfillment of the needs and expectations of Hawaii's present and future generations. (2) A desired physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well-being of the people. (3) Physical, social, and economic well-being, for individuals and families in Hawaii, that nourishes a sense of community responsibility, of caring, and of participation in community life.			
***Analysis:* Pūlama Lāna'i is proposing a reduction in scale of the land area and density, and amendments to the development standards permitted in the existing Kō'ele Project District. The contemplated amendments seek to enhance and complement the existing uses within the Project District, and present opportunities for addition resort-related employment opportunities, thereby improving the local economy and allowing residents to achieve economic well-being.**			
Chapter 226-5 Objective and Policies for Population			
Objective: It shall be the objective in planning for the State's population to guide population growth to be consistent with the achievement of physical, economic and social objectives contained in this chapter.			
Policies:			
(1) Manage population growth statewide in a manner that provides increased opportunities for Hawaii's people to pursue their physical, social, and economic aspirations while recognizing the unique needs of each county.		✓	
(2) Encourage an increase in economic activities and employment opportunities on the neighbor islands consistent with community needs and desires.		✓	

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
(3) Promote increased opportunities for Hawaii's people to pursue their socio-economic aspirations throughout the islands.		✓	
(4) Encourage research activities and public awareness programs to foster an understanding of Hawaii's limited capacity to accommodate population needs and to address concerns resulting from an increase in Hawaii's population.			✓
(5) Encourage federal actions and coordination among major governmental agencies to promote a more balanced distribution of immigrants among the states, provided that such actions do not prevent the reunion of immediate family members.			✓
(6) Pursue an increase in federal assistance for states with a greater proportion of foreign immigrants relative to their state's population.			✓
(7) Plan the development and availability of land and water resources in a coordinated manner so as to provide for the desired levels of growth in each geographic area.			✓
***Analysis:* Implementation of the permitted uses in the amended Project District will support the State economy and enhance the social stability and well-being for the people of Lāna'i.**			
Chapter 226-6 Objectives and policies for the economy – – in general			
Objectives: Planning for the State's economy in general shall be directed toward achievement of the following objectives:			
(1) Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawaii's people, while at the same time stimulating the development and expansion of economic activities capitalizing on defense, dual-use, and science and technology assets, particularly on the neighbor islands where employment opportunities may be limited.		✓	
(2) A steadily growing and diversified economic base that is not overly dependent on a few industries, and includes the development and expansion of industries on the neighbor islands.		✓	
Policies:			
(1) Promote and encourage entrepreneurship within Hawaii by residents and nonresidents of the State.			✓
(2) Expand Hawaii's national and international marketing, communication, and organizational ties, to increase the State's capacity to adjust to and capitalize upon economic changes and opportunities occurring outside the State.			✓
(3) Promote Hawaii as an attractive market for environmentally and socially sound investment activities that benefit Hawaii's people.			✓
(4) Transform and maintain Hawaii as a place that welcomes and facilitates innovative activity that may lead to commercial opportunities.			✓
(5) Promote innovative activity that may pose initial risks, but ultimately contribute to the economy of Hawaii.			✓
(6) Seek broader outlets for new or expanded Hawaii business investments.			✓

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
(7) Expand existing markets and penetrate new markets for Hawaii's products and services.			✓
(8) Assure that the basic economic needs of Hawaii's people are maintained in the event of disruptions in overseas transportation.			✓
(9) Strive to achieve a level of construction activity responsive to, and consistent with, state growth objectives.			✓
(10) Encourage the formation of cooperatives and other favorable marketing arrangements at the local or regional level to assist Hawaii's small scale producers, manufacturers, and distributors.			✓
(11) Encourage labor-intensive activities that are economically satisfying and which offer opportunities for upward mobility.			✓
(12) Encourage innovative activities that may not be labor-intensive, but may otherwise contribute to the economy of Hawaii.		✓	
(13) Foster greater cooperation and coordination between the government and private sectors in developing Hawaii's employment and economic growth opportunities.			✓
(14) Stimulate the development and expansion of economic activities which will benefit areas with substantial or expected employment problems.		✓	
(15) Maintain acceptable working conditions and standards for Hawaii's workers.			✓
(16) Provide equal employment opportunities for all segments of Hawaii's population through affirmative action and nondiscrimination measures.			✓
(17) Stimulate the development and expansion of economic activities capitalizing on defense, dual-use, and science and technology assets, particularly on the neighbor islands where employment opportunities may be limited.			✓
(18) Encourage businesses that have favorable financial multiplier effects within Hawaii's economy, particularly with respect to emerging industries in science and technology.			✓
(19) Promote and protect intangible resources in Hawaii, such as scenic beauty and the aloha spirit, which are vital to a healthy economy.		✓	
(20) Increase effective communication between the educational community and the private sector to develop relevant curricula and training programs to meet future employment needs in general, and requirements of new or innovative potential growth industries in particular.			✓
(21) Foster a business climate in Hawaii--including attitudes, tax and regulatory policies, and financial and technical assistance programs--that is conducive to the expansion of existing enterprises and the creation and attraction of new business and industry.			✓
Analysis: **Implementation of the permitted uses in the amended Project District will support the State economy and enhance the social stability and well-being for the people of Lāna'i.**			

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
Chapter 226-7 Objectives and policies for the economy – – agriculture.			
Objectives: Planning for the State's economy with regard to agriculture shall be directed towards achievement of the following objectives:			
(1) Viability of Hawaii's sugar and pineapple industries.			✓
(2) Growth and development of diversified agriculture throughout the State.			✓
(3) An agriculture industry that continues to constitute a dynamic and essential component of Hawaii's strategic, economic, and social well-being.			✓
Policies:			
(1) Establish a clear direction for Hawaii's agriculture through stakeholder commitment and advocacy.			✓
(2) Encourage agriculture by making the best use of natural resources.			✓
(3) Provide the governor and the legislature with information and options needed for prudent decision-making for the development of agriculture.			✓
(4) Establish strong relationships between the agricultural and visitor industries for mutual marketing benefits.			✓
(5) Foster increased public awareness and understanding of the contributions and benefits of agriculture as a major sector of Hawaii's economy.			✓
(6) Seek the enactment and retention of federal and state legislation that benefits Hawaii's agricultural industries.			✓
(7) Strengthen diversified agriculture by developing an effective promotion, marketing, and distribution system between Hawaii's food producers and consumers in the State, nation, and world.			✓
(8) Support research and development activities that strengthen economic productivity in agriculture, stimulate greater efficiency, and enhance the development of new products and agricultural by-products.			✓
(9) Enhance agricultural growth by providing public incentives and encouraging private initiatives.			✓
(10) Assure the availability of agriculturally suitable lands with adequate water to accommodate present and future needs.			✓
(11) Increase the attractiveness and opportunities for an agricultural education and livelihood.			✓
(12) In addition to the State's priority on food, expand Hawaii's agricultural base by promoting growth and development of flowers, tropical fruits and plants, livestock, feed grains, forestry, food crops, aquaculture, and other potential enterprises.			✓
(13) Promote economically competitive activities that increase Hawaii's agricultural self-sufficiency, including the increased purchase and use of Hawaii-grown food and food products by residents, businesses, and governmental bodies as defined under section 103D-104.			✓

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
(14) Promote and assist in the establishment of sound financial programs for diversified agriculture.			✓
(15) Institute and support programs and activities to assist the entry of displaced agricultural workers into alternative agricultural or other employment.			✓
(16) Facilitate the transition of agricultural lands in economically nonfeasible agricultural production to economically viable agricultural uses.			✓
(17) Perpetuate, promote, and increase use of traditional Hawaiian farming systems, such as the use of loko i'a, māla, and irrigated lo'i, and growth of traditional Hawaiian crops, such as kalo, 'uala, and 'ulu.			✓
(18) Increase and develop small-scale farms.			✓
Analysis: **The proposed action will not directly or indirectly impact the economic objectives and policies related to agriculture.**			
Chapter 226-8 Objective and policies for the economy – – visitor industry.			
Objective: Planning for the State's economy with regard to the visitor industry shall be directed towards the achievement of the objective of a visitor industry that constitutes a major component of steady growth for Hawaii's economy.			
Policies:			
(1) Support and assist in the promotion of Hawaii's visitor attractions and facilities.		✓	
(2) Ensure that visitor industry activities are in keeping with the social, economic, and physical needs and aspirations of Hawaii's people.		✓	
(3) Improve the quality of existing visitor destination areas by utilizing Hawaii's strengths in science and technology.			✓
(4) Encourage cooperation and coordination between the government and private sectors in developing and maintaining well-designed, adequately serviced visitor industry and related developments which are sensitive to neighboring communities and activities.		✓	
(5) Develop the industry in a manner that will continue to provide new job opportunities and steady employment for Hawaii's people.		✓	
(6) Provide opportunities for Hawaii's people to obtain job training and education that will allow for upward mobility within the visitor industry.		✓	
(7) Foster a recognition of the contribution of the visitor industry to Hawaii's economy and the need to perpetuate the aloha spirit.		✓	
(8) Foster an understanding by visitors of the aloha spirit and of the unique and sensitive character of Hawaii's cultures and values.		✓	
Analysis: **The proposed action indirectly supports the economic objectives and policies related to the visitor industry as implementation of the proposed action presents opportunities for future development of resort-related uses and amenities, thus increased employment opportunities for residents.**			
Chapter 226-9 Objective and policies for the economy – – federal expenditures.			
Objective: Planning for the State's economy with regard to federal expenditures shall be directed towards achievement of the objective of a stable federal investment base as an integral			

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
component of Hawaii's economy.			
Policies:			
(1) Encourage the sustained flow of federal expenditures in Hawaii that generates long-term government civilian employment;			✓
(2) Promote Hawaii's supportive role in national defense, in a manner consistent with Hawaii's social, environmental, and cultural goals by building upon dual-use and defense applications to develop thriving ocean engineering, aerospace research and development, and related dual-use technology sectors in Hawaii's economy;			✓
(3) Promote the development of federally supported activities in Hawaii that respect statewide economic concerns, are sensitive to community needs, and minimize adverse impacts on Hawaii's environment;			✓
(4) Increase opportunities for entry and advancement of Hawaii's people into federal government service;			✓
(5) Promote federal use of local commodities, services, and facilities available in Hawaii;			✓
(6) Strengthen federal-state-county communication and coordination in all federal activities that affect Hawaii; and			✓
(7) Pursue the return of federally controlled lands in Hawaii that are not required for either the defense of the nation or for other purposes of national importance, and promote the mutually beneficial exchanges of land between federal agencies, the State, and the counties.			✓
Analysis: **The proposed action will not directly or indirectly impact the economic objectives and policies related to federal expenditures.**			
Chapter 226-10 Objective and policies for the economy – – potential growth and innovative activities.			
Objective: Planning for the State's economy with regard to potential growth and innovative activities shall be directed towards achievement of the objective of development and expansion of potential growth and innovative activities that serve to increase and diversify Hawaii's economic base.			
Policies:			
(1) Facilitate investment and employment growth in economic activities that have the potential to expand and diversify Hawaii's economy, including but not limited to diversified agriculture, aquaculture, renewable energy development, creative media, health care, and science and technology-based sectors;			✓
(2) Facilitate investment in innovative activity that may pose risks or be less labor-intensive than other traditional business activity, but if successful, will generate revenue in Hawaii through the export of services or products or substitution of imported services or products;			✓
(3) Encourage entrepreneurship in innovative activity by academic researchers and instructors who may not have the background, skill, or initial inclination to commercially exploit their discoveries or achievements;			✓

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Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
(4) Recognize that innovative activity is not exclusively dependent upon individuals with advanced formal education, but that many self-taught, motivated individuals are able, willing, sufficiently knowledgeable, and equipped with the attitude necessary to undertake innovative activity;			✓
(5) Increase the opportunities for investors in innovative activity and talent engaged in innovative activity to personally meet and interact at cultural, art, entertainment, culinary, athletic, or visitor-oriented events without a business focus;			✓
(6) Expand Hawaii's capacity to attract and service international programs and activities that generate employment for Hawaii's people;			✓
(7) Enhance and promote Hawaii's role as a center for international relations, trade, finance, services, technology, education, culture, and the arts;			✓
(8) Accelerate research and development of new energy-related industries based on wind, solar, ocean, underground resources, and solid waste;			✓
(9) Promote Hawaii's geographic, environmental, social, and technological advantages to attract new or innovative economic activities into the State;			✓
(10) Provide public incentives and encourage private initiative to attract new or innovative industries that best support Hawaii's social, economic, physical, and environmental objectives;			✓
(11) Increase research and the development of ocean-related economic activities such as mining, food production, and scientific research;			✓
(12) Develop, promote, and support research and educational and training programs that will enhance Hawaii's ability to attract and develop economic activities of benefit to Hawaii;			✓
(13) Foster a broader public recognition and understanding of the potential benefits of new or innovative growth-oriented industry in Hawaii;			✓
(14) Encourage the development and implementation of joint federal and state initiatives to attract federal programs and projects that will support Hawaii's social, economic, physical, and environmental objectives;			✓
(15) Increase research and development of businesses and services in the telecommunications and information industries;			✓
(16) Foster the research and development of nonfossil fuel and energy efficient modes of transportation; and			✓
(17) Recognize and promote health care and health care information technology as growth industries.			✓
Analysis: **The proposed action will not directly or indirectly impact the economic objectives and policies related to growth and innovative activities.**			
Chapter 226-10.5 Objectives and policies for the economy – – information industry.			
Objective: Planning for the State's economy with regard to telecommunications and information technology shall be directed toward recognizing that broadband and wireless communication capability and infrastructure are foundations for an innovative economy and positioning Hawaii as a leader in broadband and wireless communications and applications in the			

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
Pacific Region.			
Policies:			
(1) Promote efforts to attain the highest speeds of electronic and wireless communication within Hawaii and between Hawaii and the world, and make high speed communication available to all residents and businesses in Hawaii;			✓
(2) Encourage the continued development and expansion of the telecommunications infrastructure serving Hawaii to accommodate future growth and innovation in Hawaii's economy;			✓
(3) Facilitate the development of new or innovative business and service ventures in the information industry which will provide employment opportunities for the people of Hawaii;			✓
(4) Encourage mainland- and foreign-based companies of all sizes, whether information technology-focused or not, to allow their principals, employees, or contractors to live in and work from Hawaii, using technology to communicate with their headquarters, offices, or customers located out-of-state;			✓
(5) Encourage greater cooperation between the public and private sectors in developing and maintaining a well-designed information industry;			✓
(6) Ensure that the development of new businesses and services in the industry are in keeping with the social, economic, and physical needs and aspirations of Hawaii's people;			✓
(7) Provide opportunities for Hawaii's people to obtain job training and education that will allow for upward mobility within the information industry;			✓
(8) Foster a recognition of the contribution of the information industry to Hawaii's economy; and			✓
(9) Assist in the promotion of Hawaii as a broker, creator, and processor of information in the Pacific.			✓
Analysis: **The proposed action will not directly or indirectly impact the economic objectives and policies related to the information industries.**			
Chapter 226-11 Objectives and policies for the physical environment – – land based, shoreline, and marine resources.			
Objectives: Planning for the State's physical environment with regard to land-based, shoreline, and marine resources shall be directed towards achievement of the following objectives:			
(1) Prudent use of Hawaii's land-based, shoreline, and marine resources.		✓	
(2) Effective protection of Hawaii's unique and fragile environmental resources.		✓	
Policies:			
(1) Exercise an overall conservation ethic in the use of Hawaii's natural resources.			✓

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Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
(2) Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.		✓	
(3) Take into account the physical attributes of areas when planning and designing activities and facilities.		✓	
(4) Manage natural resources and environs to encourage their beneficial and multiple use without generating costly or irreparable environmental damage.			✓
(5) Consider multiple uses in watershed areas, provided such uses do not detrimentally affect water quality and recharge functions.			✓
(6) Encourage the protection of rare or endangered plant and animal species and habitats native to Hawaii.		✓	
(7) Provide public incentives that encourage private actions to protect significant natural resources from degradation or unnecessary depletion.			✓
(8) Pursue compatible relationships among activities, facilities, and natural resources.		✓	
(9) Promote increased accessibility and prudent use of inland and shoreline areas for public recreational, educational, and scientific purposes.			✓
Analysis: **As previously discussed, the proposed action does not involve any construction activities. As such, the proposed action will not have any direct or indirect impact upon the objectives and policies related to land based, shoreline, and marine resources. However, planning and design for any potential future development within the Project District will take into account the surrounding environs to ensure that natural resources are not significantly impacted.**			
Chapter 226-12 Objective and policies for the physical environment – – scenic, natural beauty, and historic resources.			
Objective: Planning for the State's physical environment shall be directed towards achievement of the objective of enhancement of Hawaii's scenic assets, natural beauty, and multi-cultural/historical resources.			
Policies:			
(1) Promote the preservation and restoration of significant natural and historic resources.		✓	
(2) Provide incentives to maintain and enhance historic, cultural, and scenic amenities.			✓
(3) Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features.		✓	
(4) Protect those special areas, structures, and elements that are an integral and functional part of Hawaii's ethnic and cultural heritage.		✓	
(5) Encourage the design of developments and activities that complement the natural beauty of the islands.		✓	
Analysis: **As previously discussed, the proposed action does not involve any construction activities. As such the proposed action will not have any direct or indirect impact upon the objectives and policies related to scenic, natural beauty, and historic resources. Nonetheless, planning and design for any potential future**			

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
development within the Project District will take into account the surrounding environs to ensure that scenic, natural beauty, and historic resources are not significantly impacted.			
Chapter 226-13 Objectives and policies for the physical environment – – land, air, and water quality.			
Objectives: Planning for the State's physical environment with regard to land, air, and water quality shall be directed towards achievement of the following objectives.			
(1) Maintenance and pursuit of improved quality in Hawaii's land, air, and water resources.		✓	
(2) Greater public awareness and appreciation of Hawaii's environmental resources.		✓	
Policies:			
(1) Foster educational activities that promote a better understanding of Hawaii's limited environmental resources.			✓
(2) Promote the proper management of Hawaii's land and water resources.		✓	
(3) Promote effective measures to achieve desired quality in Hawaii's surface, ground, and coastal waters.			✓
(4) Encourage actions to maintain or improve aural and air quality levels to enhance the health and well-being of Hawaii's people.		✓	
(5) Reduce the threat to life and property from erosion, flooding, tsunamis, hurricanes, earthquakes, volcanic eruptions, and other natural or man-induced hazards and disasters.		✓	
(6) Encourage design and construction practices that enhance the physical qualities of Hawaii's communities.			✓
(7) Encourage urban developments in close proximity to existing services and facilities.		✓	
(8) Foster recognition of the importance and value of the land, air, and water resources to Hawaii's people, their cultures and visitors.		✓	
Analysis: **As previously discussed, the proposed action does not involve any construction activities. As such, the proposed action will not have any direct or indirect impact upon the objectives and policies related to land, air, and water quality. However, any potential future development activities within the Project District will be planned and designed such that they do not result in significant adverse impacts to land, air, or water quality. It is also noted that the Project District is located inland, and not within a flood hazard zone, the tsunami inundation zone, or an area with sea level rise hazards.**			
Chapter 226-14 Objective and policies for facility systems – – in general.			
Objective: Planning for the State's facility systems in general shall be directed towards achievement of the objective of water, transportation, waste disposal, and energy and telecommunication systems that support statewide social, economic, and physical objectives.			
Policies:			
(1) Accommodate the needs of Hawaii's people through coordination of facility systems and capital improvement priorities in consonance with			✓

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state and county plans.			
(2) Encourage flexibility in the design and development of facility systems to promote prudent use of resources and accommodate changing public demands and priorities.		✓	
(3) Ensure that required facility systems can be supported within resource capacities and at reasonable cost to the user.		✓	
(4) Pursue alternative methods of financing programs and projects and cost-saving techniques in the planning, construction, and maintenance of facility systems.			✓
Analysis: **As previously discussed, the proposed action does not involve any construction activities. As such, the proposed action will not have any direct or indirect impact upon the objectives and policies related to facility systems in general. It is noted that any potential future development within the Project District is anticipated to be serviced by existing infrastructure systems.**			
Chapter 226-15 Objectives and policies for facility systems – – solid and liquid waste.			
Objectives: Planning for the State's facility systems with regard to solid and liquid wastes shall be directed towards the achievement of the following objectives:			
(1) Maintenance of basic public health and sanitation standards relating to treatment and disposal of solid and liquid wastes.			✓
(2) Provision of adequate sewerage facilities for physical and economic activities that alleviate problems in housing, employment, mobility, and other areas.			✓
Policies:			
(1) Encourage the adequate development of sewerage facilities that complement planned growth.			✓
(2) Promote re-use and recycling to reduce solid and liquid wastes and employ a conservation ethic.			✓
(3) Promote research to develop more efficient and economical treatment and disposal of solid and liquid wastes.			✓
Analysis: **As previously discussed, the proposed action does not involve any construction activities. As such, the proposed action will not have any direct or indirect impact upon the objectives and policies related to solid and liquid waste facility systems.**			
Chapter 226-16 Objective and policies for facility systems – – water.			
Objective: Planning for the State's facility systems with regard to water shall be directed towards achievement of the objective of the provision of water to adequately accommodate domestic, agricultural, commercial, industrial, recreational, and other needs within resource capacities.			
Policies:			
(1) Coordinate development of land use activities with existing and potential water supply.			✓
(2) Support research and development of alternative methods to meet future water requirements well in advance of anticipated needs.			✓

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(3) Reclaim and encourage the productive use of runoff water and wastewater discharges.			✓
(4) Assist in improving the quality, efficiency, service, and storage capabilities of water systems for domestic and agricultural use.			✓
(5) Support water supply services to areas experiencing critical water problems.			✓
(6) Promote water conservation programs and practices in government, private industry, and the general public to help ensure adequate water to meet long-term needs.			✓
Analysis: **As previously discussed, the proposed action does not involve any construction activities. As such, the proposed action will not have any direct or indirect impact upon the objectives and policies related to water facility systems.**			
Chapter 226-17 Objectives and policies for facility systems – – transportation.			
Objectives: Planning for the State's facility systems with regard to transportation shall be directed towards the achievement of the following objectives:			
(1) An integrated multi-modal transportation system that services statewide needs and promotes the efficient, economical, safe, and convenient movement of people and goods.			✓
(2) A statewide transportation system that is consistent with and will accommodate planned growth objectives throughout the State.			✓
Policies:			
(1) Design, program, and develop a multi-modal system in conformance with desired growth and physical development as stated in this chapter;			✓
(2) Coordinate state, county, federal, and private transportation activities and programs toward the achievement of statewide objectives;			✓
(3) Encourage a reasonable distribution of financial responsibilities for transportation among participating governmental and private parties;			✓
(4) Provide for improved accessibility to shipping, docking, and storage facilities;			✓
(5) Promote a reasonable level and variety of mass transportation services that adequately meet statewide and community needs;			✓
(6) Encourage transportation systems that serve to accommodate present and future development needs of communities;			✓
(7) Encourage a variety of carriers to offer increased opportunities and advantages to interisland movement of people and goods;			✓
(8) Increase the capacities of airport and harbor systems and support facilities to effectively accommodate transshipment and storage needs;			✓
(9) Encourage the development of transportation systems and programs which would assist statewide economic growth and diversification;			✓
(10) Encourage the design and development of transportation systems sensitive to the needs of affected communities and the quality of Hawaii's natural environment;			✓

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(11) Encourage safe and convenient use of low-cost, energy-efficient, non-polluting means of transportation;			✓
(12) Coordinate intergovernmental land use and transportation planning activities to ensure the timely delivery of supporting transportation infrastructure in order to accommodate planned growth objectives; and			✓
(13) Encourage diversification of transportation modes and infrastructure to promote alternate fuels and energy efficiency.			✓
Analysis: **As previously discussed, the proposed action does not involve any construction activities. As such, the proposed action will not have any direct or indirect impact upon the objectives and policies related to transportation facility systems.**			
Chapter 226-18 Objectives and policies for facility systems – – energy.			
Objectives: Planning for the State's facility systems with regard to energy shall be directed toward the achievement of the following objectives, giving due consideration to all:			
(1) Dependable, efficient, and economical statewide energy systems capable of supporting the needs of the people;			✓
(2) Increased energy security and self-sufficiency through the reduction and ultimate elimination of Hawaii's dependence on imported fuels for electrical generation and ground transportation.			✓
(3) Greater diversification of energy generation in the face of threats to Hawaii's energy supplies and systems;			✓
(4) Reduction, avoidance, or sequestration of greenhouse gas emissions from energy supply and use; and			✓
(5) Utility models that make the social and financial interests of Hawaii's utility customers a priority.			✓
(b) To achieve the energy objectives, it shall be the policy of this State to ensure the short- and long-term provision of adequate, reasonably prices, and dependable energy services to accommodate demand.			✓
Policies:			
(1) Support research and development as well as promote the use of renewable energy sources;			✓
(2) Ensure that the combination of energy supplies and energy-saving systems is sufficient to support the demands of growth;			✓
(3) Base decisions of least-cost supply-side and demand-side energy resource options on a comparison of their total costs and benefits when a least-cost is determined by a reasonably comprehensive, quantitative, and qualitative accounting of their long-term, direct and indirect economic, environmental, social, cultural, and public health costs and benefits;			✓
(4) Promote all cost-effective conservation of power and fuel supplies through measures, including:			
(A) Development of cost-effective demand-side management programs;			✓

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(B) Education;			✓
(C) Adoption of energy-efficient practices and technologies; and			✓
(D) Increasing energy efficiency and decreasing energy use in public infrastructure			✓
(5) Ensure, to the extent that new supply-side resources are needed, that the development or expansion of energy systems uses the least-cost energy supply option and maximizes efficient technologies; and			✓
(6) Support research, development, demonstration, and use of energy efficiency, load management, and other demand-side management programs, practices, and technologies;			✓
(7) Promote alternate fuels and transportation energy efficiency;			✓
(8) Support actions that reduce, avoid, or sequester greenhouse gases in utility, transportation, and industrial sector applications;			✓
(9) Support actions that reduce, avoid, or sequester Hawaii's greenhouse gas emissions through agriculture and forestry initiatives;			✓
(10) Provide priority handling and processing for all state and county permits required for renewable energy projects;			✓
(11) Ensure that liquefied natural gas is used only as a cost-effective transitional, limited-term replacement of petroleum for electricity generation and does not impede the development and use of other cost-effective renewable energy sources; and			✓
(12) Promote the development of indigenous geothermal energy resources that are located on public trust land as an affordable and reliable source of firm power for Hawaii.			✓
Analysis: **As previously discussed, the proposed action does not involve any construction activities. As such, the proposed action will not have any direct or indirect impact upon the objectives and policies related to energy facility systems.**			
Chapter 226-18.5 Objectives and policies for facility systems – – telecommunications.			
Objectives:			
(a) Planning for the State's telecommunications facility systems shall be directed towards the achievement of dependable, efficient, and economical statewide telecommunications systems capable of supporting the needs of the people.			✓
(b) To achieve the telecommunications objective, it shall be the policy of this State to ensure the provision of adequate, reasonably priced, and dependable telecommunications services to accommodate demand.			✓
Policies:			
(1) Facilitate research and development of telecommunications systems and resources;			✓
(2) Encourage public and private sector efforts to develop means for adequate, ongoing telecommunications planning;			✓

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(3) Promote efficient management and use of existing telecommunications systems and services; and			✓
(4) Facilitate the development of education and training of telecommunications personnel.			✓
Analysis: **As previously discussed, the proposed action does not involve any construction activities. As such, the proposed action will not have any direct or indirect impact upon the objectives and policies related to telecommunication facility systems.**			
Chapter 226-19 Objectives and policies for socio-cultural advancement – – housing.			
Objectives: Planning for the State's socio-cultural advancement with regard to housing shall be directed toward the achievement of the following objectives:			
(1) Greater opportunities for Hawaii's people to secure reasonably priced, safe, sanitary, and livable homes, located in suitable environments that satisfactorily accommodate the needs and desires of families and individuals, through collaboration and cooperation between government and nonprofit and for-profit developers to ensure that more affordable housing is made available to very low-, low- and moderate-income segments of Hawaii's population.			✓
(2) The orderly development of residential areas sensitive to community needs and other land uses.			✓
(3) The development and provision of affordable rental housing by the State to meet the housing needs of Hawaii's people.			✓
Policies:			
(1) Effectively accommodate the housing needs of Hawaii's people.			✓
(2) Stimulate and promote feasible approaches that increase housing choices for low-income, moderate-income, and gap-group households.			✓
(3) Increase homeownership and rental opportunities and choices in terms of quality, location, cost, densities, style, and size of housing.			✓
(4) Promote appropriate improvement, rehabilitation, and maintenance of existing housing units and residential areas.			✓
(5) Promote design and location of housing developments taking into account the physical setting, accessibility to public facilities and services, and other concerns of existing communities and surrounding areas.			✓
(6) Facilitate the use of available vacant, developable, and underutilized urban lands for housing.			✓
(7) Foster a variety of lifestyles traditional to Hawaii through the design and maintenance of neighborhoods that reflect the culture and values of the community.			✓
(8) Promote research and development of methods to reduce the cost of housing construction in Hawaii.			✓
Analysis: **The proposed action seeks to reduce the lands designated for residential uses within the project district. As such, the proposed action will not have any direct or indirect impact upon the objectives and policies related to housing.**			

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Chapter 226-20 Objectives and policies for socio-cultural advancement – – health.			
Objectives: Planning for the State's socio-cultural advancement with regard to health shall be directed towards achievement of the following objectives:			
(1) Fulfillment of basic individual health needs of the general public.			✓
(2) Maintenance of sanitary and environmentally healthful conditions in Hawaii's communities.			✓
(3) Elimination of health disparities by identifying and addressing social determinants of health.			✓
Policies:			
(1) Provide adequate and accessible services and facilities for prevention and treatment of physical and mental health problems, including substance abuse.			✓
(2) Encourage improved cooperation among public and private sectors in the provision of health care to accommodate the total health needs of individuals throughout the State.			✓
(3) Encourage public and private efforts to develop and promote statewide and local strategies to reduce health care and related insurance costs.			✓
(4) Foster an awareness of the need for personal health maintenance and preventive health care through education and other measures.			✓
(5) Provide programs, services, and activities that ensure environmentally healthful and sanitary conditions.			✓
(6) Improve the State's capabilities in preventing contamination by pesticides and other potentially hazardous substances through increased coordination, education, monitoring, and enforcement.			✓
(7) Prioritize programs, services, interventions, and activities that address identified social determinants of health to improve native Hawaiian health and well-being consistent with the United States Congress' declaration of policy as codified in title 42 United States Code section 11702, and to reduce health disparities of disproportionately affected demographics, including native Hawaiians, other Pacific Islanders, and Filipinos. The prioritization of affected demographic groups other than native Hawaiians may be reviewed every ten years and revised based on the best available epidemiological and public health data.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objectives and policies related to health.**			
Chapter 226-21 Objectives and policies for Socio-cultural advancement – – education.			
Objective: Planning for the State's socio-cultural advancement with regard to education shall be directed towards achievement of the objective of the provision of a variety of educational opportunities to enable individuals to fulfill their needs, responsibilities, and aspirations.			✓
Policies:			
(1) Support educational programs and activities that enhance personal development, physical fitness, recreation, and cultural pursuits of all			✓

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Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
groups.			
(2) Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs.			✓
(3) Provide appropriate educational opportunities for groups with special needs.			✓
(4) Promote educational programs which enhance understanding of Hawaii's cultural heritage.			✓
(5) Provide higher educational opportunities that enable Hawaii's people to adapt to changing employment demands.			✓
(6) Assist individuals, especially those experiencing critical employment problems or barriers, or undergoing employment transitions, by providing appropriate employment training programs and other related educational opportunities.			✓
(7) Promote programs and activities that facilitate the acquisition of basic skills, such as reading, writing, computing, listening, speaking, and reasoning.			✓
(8) Emphasize quality educational programs in Hawaii's institutions to promote academic excellence.			✓
(9) Support research programs and activities that enhance the education programs of the State.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objectives and policies related to education.**			
Chapter 226-22 Objective and policies for socio-cultural advancement – – social services.			
Objective: Planning for the State's socio-cultural advancement with regard to social services shall be directed towards the achievement of the objective of improved public and private social services and activities that enable individuals, families, and groups to become more self-reliant and confident to improve their well-being.			✓
Policies:			
(1) Assist individuals, especially those in need of attaining a minimally adequate standard of living and those confronted by social and economic hardship conditions, through social services and activities within the State's fiscal capacities.			✓
(2) Promote coordination and integrative approaches among public and private agencies and programs to jointly address social problems that will enable individuals, families, and groups to deal effectively with social problems and to enhance their participation in society.			✓
(3) Facilitate the adjustment of new residents, especially recently arrived immigrants, into Hawaii's communities.			✓
(4) Promote alternatives to institutional care in the provision of long-term care for elder and disabled populations.			✓
(5) Support public and private efforts to prevent domestic abuse and child molestation, and assist victims of abuse and neglect.			✓

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(6) Promote programs which assist people in need of family planning services to enable them to meet their needs.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objectives and policies related to social services.**			
Chapter 226-23 Objective and policies for socio-cultural advancement – – leisure.			
Objective: Planning for the State's socio-cultural advancement with regard to leisure shall be directed towards the achievement of the objective of the adequate provision of resources to accommodate diverse cultural, artistic, and recreational needs for present and future generations.		✓	
Policies:			
(1) Foster and preserve Hawaii's multi-cultural heritage through supportive cultural, artistic, recreational, and humanities-oriented programs and activities.			✓
(2) Provide a wide range of activities and facilities to fulfill the cultural, artistic, and recreational needs of all diverse and special groups effectively and efficiently.			✓
(3) Enhance the enjoyment of recreational experiences through safety and security measures, educational opportunities, and improved facility design and maintenance.		✓	
(4) Promote the recreational and educational potential of natural resources having scenic, open space, cultural, historical, geological, or biological values while ensuring that their inherent values are preserved.			✓
(5) Ensure opportunities for everyone to use and enjoy Hawaii's recreational resources.		✓	
(6) Assure the availability of sufficient resources to provide for future cultural, artistic, and recreational needs.		✓	
(7) Provide adequate and accessible physical fitness programs to promote the physical and mental well-being of Hawaii's people.			✓
(8) Increase opportunities for appreciation and participation in the creative arts, including the literary, theatrical, visual, musical, folk, and traditional art forms.			✓
(9) Encourage the development of creative expression in the artistic disciplines to enable all segments of Hawaii's population to participate in the creative arts.			✓
(10) Assure adequate access to significant natural and cultural resources in public ownership.			✓
Analysis: **The proposed action results in a net increase in lands designated Park and Open Space within the Project District. As such, the proposed action has an indirect impact upon the objectives and policies related to leisure activities and resource as this increase in Park and Open Space sub-designated lands present opportunities for additional recreational resources to be developed.**			
Chapter 226-24 Objective and policies for socio-cultural advancement – – individual rights and personal well-being.			

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Objective: Planning for the State's socio-cultural advancement with regard to individual rights and personal well-being shall be directed towards achievement of the objective of increased opportunities and protection of individual rights to enable individuals to fulfill their socio-economic needs and aspirations.			✓
Policies:			
(1) Provide effective services and activities that protect individuals from criminal acts and unfair practices and that alleviate the consequences of criminal acts in order to foster a safe and secure environment.			✓
(2) Uphold and protect the national and state constitutional rights of every individual.			✓
(3) Assure access to, and availability of, legal assistance, consumer protection, and other public services, which strive to attain social justice.			✓
(4) Ensure equal opportunities for individual participation in society.			✓
***Analysis:* The proposed action will not have any direct or indirect impact upon the objectives and policies related to individual rights and personal well-being.**			
Chapter 226-25 Objective and policies for socio-cultural advancement – – culture.			
Objective: Planning for the State's socio-cultural advancement with regard to culture shall be directed toward the achievement of the objective of enhancement of cultural identities, traditions, values, customs, and arts of Hawaii's people.			✓
Policies:			
(1) Foster increased knowledge and understanding of Hawaii's ethnic and cultural heritages and the history of Hawaii.			✓
(2) Support activities and conditions that promote cultural values, customs, and arts that enrich the lifestyles of Hawaii's people and which are sensitive and responsive to family and community needs.			✓
(3) Encourage increased awareness of the effects of proposed public and private actions on the integrity and quality of cultural and community lifestyles in Hawaii.			✓
(4) Encourage the essence of the aloha spirit in people's daily activities to promote harmonious relationships among Hawaii's people and visitors.			✓
***Analysis:* The proposed action will not have any direct or indirect impact upon the objectives and policies related to culture.**			
Chapter 226-26 Objectives and policies for socio-cultural advancement – – public safety.			
Objective: Planning for the State's socio-cultural advancement with regard to public safety shall be directed towards the achievement of the following objectives:			
(1) Assurance of public safety and adequate protection of life and property for all people.			✓
(2) Optimum organizational readiness and capability in all phases of emergency management to maintain the strength, resources, and social and economic well-being of the community in the event of civil disruptions, wars, natural disasters, and other major disturbances.			✓

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(3) Promotion of a sense of community responsibility for the welfare and safety of Hawaii's people.			✓
Policies (Public Safety):			
(1) Ensure that public safety programs are effective and responsive to community needs.			✓
(2) Encourage increased community awareness and participation in public safety programs.			✓
Policies (Public Safety-Criminal Justice):			
(1) Support criminal justice programs aimed at preventing and curtailing criminal activities.			✓
(2) Develop a coordinated, systematic approach to criminal justice administration among all criminal justice agencies.			✓
(3) Provide a range of correctional resources, which may include facilities and alternatives to traditional incarceration in order to address the varied security needs of the community and successfully reintegrate offenders into the community.			✓
Policies (Public Safety – Emergency Management):			
(1) Ensure that responsible organizations are in a proper state of readiness to respond to major war-related, natural, or technological disasters and civil disturbances at all times.			✓
(2) Enhance the coordination between emergency management programs throughout the State.			✓
***Analysis:* The proposed action will not have any direct or indirect impact upon the objectives and policies related to public safety.**			
Chapter 226-27 Objectives and policies for socio-cultural advancement – – government.			
Objectives: Planning the State's socio-cultural advancement with regard to government shall be directed towards the achievement of the following objectives:			
(1) Efficient, effective, and responsive government services at all levels in the State.			✓
(2) Fiscal integrity, responsibility, and efficiency in the state government and county governments.			✓
Policies:			
(1) Provide for necessary public goods and services not assumed by the private sector.			✓
(2) Pursue an openness and responsiveness in government that permits the flow of public information, interaction, and response.			✓
(3) Minimize the size of government to that necessary to be effective.			✓
(4) Stimulate the responsibility in citizens to productively participate in government for a better Hawaii.			✓
(5) Assure that government attitudes, actions, and services are sensitive to community needs and concerns.			✓

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(6) Provide for a balanced fiscal budget.			✓
(7) Improve the fiscal budgeting and management system of the State.			✓
(8) Promote the consolidation of state and county governmental functions to increase the effective and efficient delivery of government programs and services and to eliminate duplicative services wherever feasible.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objectives and policies related to government.**			

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Chapter 226-101: Purpose. The purpose of this part is to establish overall priority guidelines to address areas of statewide concern.			
Chapter 226-102: Overall direction. The State shall strive to improve the quality of life for Hawaii's present and future population through the pursuit of desirable courses of action in seven major areas of statewide concern which merit priority attention: economic development, population growth and land resource management, affordable housing, crime and criminal justice, quality education, principles of sustainability, and climate change adaptation.			
Chapter 226-103: Economic priority guidelines.			
(a) Priority guidelines to stimulate economic growth and encourage business expansion and development to provide needed jobs for Hawaii's people and achieve a stable and diversified economy:			
(1) Seek a variety of means to increase the availability of investment capital for new and expanding enterprises.			✓
(A) Encourage investments which:			
(i) Reflect long term commitments to the State;			✓
(ii) Rely on economic linkages within the local economy;			✓
(iii) Diversify the economy;			✓
(iv) Reinvest in the local economy;		✓	
(v) Are sensitive to community needs and priorities; and		✓	
(vi) Demonstrate a commitment to provide management opportunities to Hawaii residents; and			✓
(B) Encourage investments in innovative activities that have a nexus to the State, such as:			
(i) Present or former residents acting as entrepreneurs or principals;			✓
(ii) Academic support from an institution of higher education in Hawaii;			✓
(iii) Investment interest from Hawaii residents;			✓
(iv) Resources unique to Hawaii that are required for innovative activity; and			✓
(v) Complementary or supportive industries or government programs or projects.			✓
(2) Encourage the expansion of technological research to assist industry development and support the development and commercialization of technological advancements.			✓
(3) Improve the quality, accessibility, and range of services provided by government to business, including data and reference services and assistance in complying with governmental regulations.			✓
(4) Seek to ensure that state business tax and labor laws and administrative policies are equitable, rational, and predictable.			✓
(5) Streamline the processes for building and development permit and review, and telecommunication infrastructure installation approval and eliminate or consolidate other burdensome or duplicative governmental requirements imposed on business, where scientific evidence indicates that public health, safety and welfare would not be adversely affected.			✓
(6) Encourage the formation of cooperatives and other favorable marketing or distribution arrangements at the regional or local level to assist Hawaii's small-scale producers, manufacturers, and distributors.			✓

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(7) Continue to seek legislation to protect Hawaii from transportation interruptions between Hawaii and the continental United States.			✓
(8) Provide public incentives and encourage private initiative to develop and attract industries which promise long-term growth potentials and which have the following characteristics:			
(A) An industry that can take advantage of Hawaii's unique location and available physical and human resources.		✓	
(B) A clean industry that would have minimal adverse effects on Hawaii's environment.			✓
(C) An industry that is willing to hire and train Hawaii's people to meet the industry's labor needs at all levels of employment.		✓	
(D) An industry that would provide reasonable income and steady employment.		✓	
(9) Support and encourage, through educational and technical assistance programs and other means, expanded opportunities for employee ownership and participation in Hawaii business.			✓
(10) Enhance the quality of Hawaii's labor force and develop and maintain career opportunities for Hawaii's people through the following actions:			
(A) Expand vocational training in diversified agriculture, aquaculture, information industry, and other areas where growth is desired and feasible.			✓
(B) Encourage more effective career counseling and guidance in high schools and post-secondary institutions to inform students of present and future career opportunities.			✓
(C) Allocate educational resources to career areas where high employment is expected and where growth of new industries is desired.			✓
(D) Promote career opportunities in all industries for Hawaii's people by encouraging firms doing business in the State to hire residents.			✓
(E) Promote greater public and private sector cooperation in determining industrial training needs and in developing relevant curricula and on-the-job training opportunities.			✓
(F) Provide retraining programs and other support services to assist entry of displaced workers into alternative employment.			✓
(b) Priority guidelines to promote the economic health and quality of the visitor industry:			
(1) Promote visitor satisfaction by fostering an environment which enhances the Aloha Spirit and minimizes inconveniences to Hawaii's residents and visitors.		✓	
(2) Encourage the development and maintenance of well-designed, adequately serviced hotels and resort destination areas which are sensitive to neighboring communities and activities and which provide for adequate shoreline setbacks and beach access.		✓	
(3) Support appropriate capital improvements to enhance the quality of existing resort destination areas and provide incentives to encourage investment in upgrading, repair, and maintenance of visitor facilities.		✓	
(4) Encourage visitor industry practices and activities which respect, preserve, and enhance Hawaii's significant natural, scenic, historic, and cultural resources.		✓	
(5) Develop and maintain career opportunities in the visitor industry for Hawaii's people, with emphasis on managerial positions.		✓	

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	N/A
(6) Support and coordinate tourism promotion abroad to enhance Hawaii's share of existing and potential visitor markets.			✓
(7) Maintain and encourage a more favorable resort investment climate consistent with the objectives of this chapter.		✓	
(8) Support law enforcement activities that provide a safer environment for both visitors and residents alike.			✓
(9) Coordinate visitor industry activities and promotions to business visitors through the state network of advanced data communication techniques.			✓
(c) Priority guidelines to promote the continued viability of the sugar and pineapple industries:			
(1) Provide adequate agricultural lands to support the economic viability of the sugar and pineapple industries.			✓
(2) Continue efforts to maintain federal support to provide stable sugar prices high enough to allow profitable operations in Hawaii.			✓
(3) Support research and development, as appropriate, to improve the quality and production of sugar and pineapple crops.			✓
(d) Priority guidelines to promote the growth and development of diversified agriculture and aquaculture:			
(1) Identify, conserve, and protect agricultural and aquacultural lands of importance and initiate affirmative and comprehensive programs to promote economically productive agricultural and aquacultural uses of such lands.			✓
(2) Assist in providing adequate, reasonably priced water for agricultural activities.			✓
(3) Encourage public and private investment to increase water supply and to improve transmission, storage, and irrigation facilities in support of diversified agriculture and aquaculture.			✓
(4) Assist in the formation and operation of production and marketing associations and cooperatives to reduce production and marketing costs.			✓
(5) Encourage and assist with the development of a waterborne and airborne freight and cargo system capable of meeting the needs of Hawaii's agricultural community.			✓
(6) Seek favorable freight rates for Hawaii's agricultural products from interisland and overseas transportation operators.			✓
(7) Encourage the development and expansion of agricultural and aquacultural activities which offer long-term economic growth potential and employment opportunities.			✓
(8) Continue the development of agricultural parks and other programs to assist small independent farmers in securing agricultural lands and loans.			✓
(9) Require agricultural uses in agricultural subdivisions and closely monitor the uses in these subdivisions.			✓
(10) Support the continuation of land currently in use for diversified agriculture.			✓
(11) Encourage residents and visitors to support Hawaii's farmers by purchasing locally grown food and food products.			✓
(e) Priority guidelines for water use and development:			
(1) Maintain and improve water conservation programs to reduce the overall water consumption rate.			✓
(2) Encourage the improvement of irrigation technology and promote the use of nonpotable water for agricultural and landscaping purposes.			✓
(3) Increase the support for research and development of economically			✓

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Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	N/A
feasible alternative water sources.			
(4) Explore alternative funding sources and approaches to support future water development programs and water system improvements.			✓
(f) Priority guidelines for energy use and development:			
(1) Encourage the development, demonstration, and commercialization of renewable energy sources.			✓
(2) Initiate, maintain, and improve energy conservation programs aimed at reducing energy waste and increasing public awareness of the need to conserve energy.			✓
(3) Provide incentives to encourage the use of energy conserving technology in residential, industrial, and other buildings.			✓
(4) Encourage the development and use of energy conserving and cost-efficient transportation systems.			✓
(g) Priority guidelines to promote the development of the information industry:			
(1) Establish an information network, with an emphasis on broadband and wireless infrastructure and capability that will serve as the foundation of and catalyst for overall economic growth and diversification in Hawaii.			✓
(2) Encourage the development of services such as financial data processing, a products and services exchange, foreign language translations, telemarketing, teleconferencing, a twenty-four-hour international stock exchange, international banking, and a Pacific Rim management center.			✓
(3) Encourage the development of small businesses in the information field such as software development; the development of new information systems, peripherals, and applications; data conversion and data entry services; and home or cottage services such as computer programming, secretarial, and accounting services.			✓
(4) Encourage the development or expansion of educational and training opportunities for residents in the information and telecommunications fields.			✓
(5) Encourage research activities, including legal research in the information and telecommunications fields.			✓
(6) Support promotional activities to market Hawaii's information industry services.			✓
(7) Encourage the location or co-location of telecommunication or wireless information relay facilities in the community, including public areas, where scientific evidence indicates that the public health, safety, and welfare would not be adversely affected.			✓
Analysis: **The proposed action is intended to reduce the scale of the land area and density and make amendments to the development standards permitted within the existing Kō'ele Project District. The proposed amendment offer opportunities for future resort-related development and associated job opportunities.**			
Chapter 226-104: Population growth and land resources priority guidelines.			
(a) Priority guidelines to effect desired statewide growth and distribution:			
(1) Encourage planning and resource management to insure that population growth rates throughout the State are consistent with available and planned resource capacities and reflect the needs and desires of Hawaii's people.			✓
(2) Manage a growth rate for Hawaii's economy that will parallel future employment needs for Hawaii's people.			✓

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(3) Ensure that adequate support services and facilities are provided to accommodate the desired distribution of future growth throughout the State.			✓
(4) Encourage major state and federal investments and services to promote economic development and private investment to the neighbor islands, as appropriate.			✓
(5) Explore the possibility of making available urban land, low-interest loans, and housing subsidies to encourage the provision of housing to support selective economic and population growth on the neighbor islands.			✓
(6) Seek federal funds and other funding sources outside the State for research, program development, and training to provide future employment opportunities on the neighbor islands.			✓
(7) Support the development of high technology parks on the neighbor islands.			✓
(b) Priority guidelines for regional growth distribution and land resource utilization:			
(1) Encourage urban growth primarily to existing urban areas where adequate public facilities are already available or can be provided with reasonable public expenditures, and away from areas where other important benefits are present, such as protection of important agricultural land or preservation of lifestyles.			✓
(2) Make available marginal or nonessential agricultural lands for appropriate urban uses while maintaining agricultural lands of importance in the agricultural district.			✓
(3) Restrict development when drafting of water would result in exceeding the sustainable yield or in significantly diminishing the recharge capacity of any groundwater area.			✓
(4) Encourage restriction of new urban development in areas where water is insufficient from any source for both agricultural and domestic use.			✓
(5) In order to preserve green belts, give priority to state capital-improvement funds, which encourage location of urban development within existing urban areas except where compelling public interest dictates development of a noncontiguous new urban core.			✓
(6) Seek participation from the private sector for the cost of building infrastructure and utilities, and maintaining open spaces.			✓
(7) Pursue rehabilitation of appropriate urban areas.			✓
(8) Support the redevelopment of Kaka'ako into a viable residential, industrial, and commercial community.			✓
(9) Direct future urban development away from critical environmental areas or impose mitigating measures so that negative impacts on the environment would be minimized.			✓
(10) Identify critical environmental areas in Hawaii to include but not be limited to the following: watershed and recharge areas; wildlife habitats (on land and in the ocean); areas with endangered species of plants and wildlife; natural streams and water bodies; scenic and recreational shoreline resources; open space and natural areas; historic and cultural sites; areas particularly sensitive to reduction in water and air quality; and scenic resources.			✓
(11) Identify all areas where priority should be given to preserving rural character and lifestyle.			✓
(12) Utilize Hawaii's limited land resources wisely, providing adequate land to			✓

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accommodate projected population and economic growth needs while ensuring the protection of the environment and the availability of the shoreline, conservation lands, and other limited resources for future generations.			
(13) Protect and enhance Hawaii's shoreline, open spaces, and scenic resources.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the priority guidelines related to population growth and land resources.**			
Chapter 226-105: Crime and criminal justice.			
Priority guidelines in the area of crime and criminal justice:			
(1) Support law enforcement activities and other criminal justice efforts that are directed to provide a safer environment.			✓
(2) Target state and local resources on efforts to reduce the incidence of violent crime and on programs relating to the apprehension and prosecution of repeat offenders.			✓
(3) Support community and neighborhood program initiatives that enable residents to assist law enforcement agencies in preventing criminal activities.			✓
(4) Reduce overcrowding or substandard conditions in correctional facilities through a comprehensive approach among all criminal justice agencies which may include sentencing law revisions and use of alternative sanctions other than incarceration for persons who pose no danger to their community.			✓
(5) Provide a range of appropriate sanctions for juvenile offenders, including community-based programs and other alternative sanctions.			✓
(6) Increase public and private efforts to assist witnesses and victims of crimes and to minimize the costs of victimization.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the priority guidelines related to crime and criminal justice.**			
Chapter 226-106: Affordable housing.			
Priority guidelines for the provision of affordable housing:			
(1) Seek to use marginal or nonessential agricultural land and public land to meet housing needs of low- and moderate-income and gap-group households.			✓
(2) Encourage the use of alternative construction and development methods as a means of reducing production costs.			✓
(3) Improve information and analysis relative to land availability and suitability for housing.			✓
(4) Create incentives for development which would increase home ownership and rental opportunities for Hawaii's low- and moderate-income households, gap-group households, and residents with special needs.			✓
(5) Encourage continued support for government or private housing programs that provide low interest mortgages to Hawaii's people for the purchase of initial owner-occupied housing.			✓
(6) Encourage public and private sector cooperation in the development of rental housing alternatives.			✓
(7) Encourage improved coordination between various agencies and levels of government to deal with housing policies and regulations.			✓
(8) Give higher priority to the provision of quality housing that is affordable for Hawaii's residents and less priority to development of housing			✓

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intended primarily for individuals outside of Hawaii.			
Analysis: **The proposed action will not have any direct or indirect impact upon the priority guidelines related to affordable housing.**			
Chapter 226-107: Quality education.			
Priority guidelines to promote quality education:			
(1) Pursue effective programs which reflect the varied district, school, and student needs to strengthen basic skills achievement;			✓
(2) Continue emphasis on general education "core" requirements to provide common background to students and essential support to other university programs;			✓
(3) Initiate efforts to improve the quality of education by improving the capabilities of the education work force;			✓
(4) Promote increased opportunities for greater autonomy and flexibility of educational institutions in their decision making responsibilities;			✓
(5) Increase and improve the use of information technology in education by the availability of telecommunications equipment for:			✓
(A) The electronic exchange of information;			✓
(B) Statewide electronic mail; and			✓
(C) Access to the Internet.			✓
(6) Encourage programs that increase the public's awareness and understanding of the impact of information technologies on our lives;			✓
(7) Pursue the establishment of Hawaii's public and private universities and colleges as research and training centers of the Pacific;			✓
(8) Develop resources and programs for early childhood education;			✓
(9) Explore alternatives for funding and delivery of educational services to improve the overall quality of education; and			✓
(10) Strengthen and expand educational programs and services for students with special needs.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the priority guidelines related to quality education.**			
CHAPTER 226-108: Sustainability			
Priority guidelines and principles to promote sustainability shall include:			
(1) Encouraging balanced economic, social, community, and environmental priorities;			✓
(2) Encouraging planning that respects and promotes living within the natural resources and limits of the State;			✓
(3) Promoting a diversified and dynamic economy;			✓
(4) Encouraging respect for the host culture;			✓
(5) Promoting decisions based on meeting the needs of the present without compromising the needs of future generations;			✓
(6) Considering the principles of the ahupua'a system; and			✓
(7) Emphasizing that everyone, including individuals, families, communities, businesses, and government, has the responsibility for achieving a sustainable Hawaii.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the priority guidelines related to sustainability.**			

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Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	N/A
CHAPTER 226-109: Climate change adaptation			
Priority guidelines and principles to promote climate change adaptation shall include:			
(1) Ensure that Hawaii's people are educated, informed, and aware of the impacts climate change may have on their communities;			✓
(2) Encourage community stewardship groups and local stakeholders to participate in planning and implementation of climate change policies;			✓
(3) Invest in continued monitoring and research of Hawaii's climate and the impacts of climate change on the State;			✓
(4) Consider native Hawaiian traditional knowledge and practices in planning for the impacts of climate change;			✓
(5) Encourage the preservation and restoration of natural landscape features, such as coral reefs, beaches and dunes, forests, streams, floodplains, and wetlands, that have the inherent capacity to avoid, minimize, or mitigate the impacts of climate change;			✓
(6) Explore adaptation strategies that moderate harm or exploit beneficial opportunities in response to actual or expected climate change impacts to the natural and built environments;			✓
(7) Promote sector resilience in areas such as water, roads, airports, and public health, by encouraging the identification of climate change threats, assessment of potential consequences, and evaluation of adaptation options;			✓
(8) Foster cross-jurisdictional collaboration between county, state, and federal agencies and partnerships between government and private entities and other nongovernmental entities, including nonprofit entities;			✓
(9) Use management and implementation approaches that encourage the continual collection, evaluation, and integration of new information and strategies into new and existing practices, policies, and plans; and			✓
(10) Encourage planning and management of the natural and built environments that effectively integrate climate change policy.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the priority guidelines related to climate change adaptation.**			

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COUNTYWIDE POLICY PLAN

APPENDIX L

REF-530

Analysis of the Project's Conformance to the Goals, Objectives, and Policies of the Countywide Policy Plan

The Countywide Policy Plan was adopted in March 2010 and is a comprehensive policy document for the islands of Maui County to the year 2030. The plan replaces the *General Plan of the County of Maui 1990 Update* and provides the policy framework for the development of the forthcoming Maui Island Plan as well as for updating the nine detailed Community Plans.

The Countywide Policy Plan provides broad goals, objectives, policies and implementing actions that portray the desired direction of the County's future. Goals are intended to describe a desirable condition of the County by the year 2030 and are intentionally general. Objectives tend to be more specific and may be regarded as milestones to achieve the larger goals. Policies are not intended as regulations, but instead provide a general guideline for County decision makers, departments, and collaborating organizations toward the attainment of goals and objectives. Implementing actions are specific tasks, procedures, programs, or techniques that carry out policy.

Discussion of the proposed project conforms to the relevant goals, objectives, policies, and implementing actions of the Countywide Policy Plan is provided below.

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
A. PROTECT THE NATURAL ENVIRONMENT			
Goal: Maui County's natural environment and distinctive open spaces will be preserved, managed, and cared for in perpetuity.		✓	
Objective:			
(1) Improve the opportunity to experience the natural beauty and native biodiversity of the islands for present and future generations.		✓	
Policies:			
(a) Perpetuate native Hawaiian biodiversity by preventing the introduction of invasive species, containing or eliminating existing noxious pests, and protecting critical habitat areas.			✓
(b) Preserve and reestablish indigenous and endemic species' habitats and their connectivity.			✓
(c) Restore and protect forests, wetlands, watersheds, and stream flows, and guard against wildfires, flooding, and erosion.			✓
(d) Protect baseline stream flows for perennial streams, and support policies that ensure adequate stream flow to support Native Hawaiian aquatic species, traditional kalo cultivation, and self-sustaining ahupuaʻa.			✓
(e) Protect undeveloped beaches, dunes, and coastal ecosystems, and restore natural shoreline processes.			✓
(f) Protect the natural state and integrity of unique terrain, valued natural environments, and geological features.			✓
(g) Preserve and provide ongoing care for important scenic vistas, view planes, landscapes, and open-space resources.		✓	
(h) Expand coordination with the State and nonprofit agencies and their volunteers			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
to reduce invasive species, replant indigenous species, and identify critical habitat.			
Implementing Actions:			
(a) Develop island-wide networks of greenways, watercourses, and habitat corridors.			✓
Analysis: **Pūlama Lānaʻi is proposing a reduction in scale of the land area and density, and amendments to the development standards permitted in the existing Kōʻele Project District. As previously discussed, the proposed action does not involve any construction activities. Nonetheless, planning and design for any future development within the Project District will take into account the surrounding environs to ensure that scenic vistas are not impacted.**			
Objective:			
(2) Improve the quality of environmentally sensitive, locally valued natural resources and native ecology of each island.		✓	
Policies:			
(a) Protect and restore nearshore reef environments and water quality.			✓
(b) Protect marine resources and valued wildlife.			✓
(c) Improve the connection between urban environments and the natural landscape, and incorporate natural features of the land into urban design.			✓
(d) Utilize land-conservation tools to ensure the permanence of valued open spaces.		✓	
(e) Mitigate the negative effects of upland uses on coastal wetlands, marine life, and coral reefs.		✓	
(f) Strengthen coastal-zone management, re-naturalization of shorelines, where possible, and filtration or treatment of urban and agricultural runoff.			✓
(g) Regulate the use and maintenance of stormwater-treatment systems that incorporate the use of native vegetation and mimic natural systems.			✓
(h) Advocate for stronger regulation of fishing, boating, cruise ship, and ecotourism activities.			✓
(i) Restore watersheds and aquifer-recharge areas to healthy and productive status, and increase public knowledge about the importance of watershed stewardship, water conservation, and groundwater protection.			✓
Implementing Actions:			
(a) Develop regulations to minimize runoff of pollutants into nearshore waters and reduce nonpoint and point source pollution.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above as no construction activities are currently being proposed. However, any potential future development activities within the Project District will be planned and designed such that they do not result in significant impacts to water quality. In addition, it is noted that the proposed amended Project District increases the amount of lands designated as Park and Open Space.**			
Objective:			
(3) Improve the stewardship of the natural environment.		✓	
Policies:			
(a) Preserve and protect natural resources with significant scenic, economic, cultural, environmental, or recreational value.		✓	
(b) Improve communication, coordination, and collaboration among government agencies, nonprofit organizations, communities, individuals, and land owners that work for the protection of the natural environment.			✓
(c) Evaluate development to assess potential short-term and long-term impacts on land, air, aquatic, and marine environments.		✓	

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COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(d) Improve efforts to mitigate and plan for the impact of natural disasters, human influenced emergencies, and global warming.			✓
(e) Regulate access to sensitive ecological sites and landscapes.			✓
(f) Reduce air, noise, light, land, and water pollution, and reduce Maui County's contribution to global climate change.		✓	
(g) Plan and prepare for and educate visitors and residents about the possible effects of global warming.			✓
(h) Provide public access to beaches and shorelines for recreational and cultural purposes where appropriate.			✓
(i) Educate the construction and landscape industries and property owners about the use of best management practices to prevent erosion and nonpoint source pollution.			✓
(j) Support the acquisition of resources with scenic, environmental, and recreational value, and encumber their use.			✓
(k) Improve enforcement activities relating to the natural environment.			✓
(l) For each shoreline community, identify and prioritize beach-conservation objectives, and develop action plans for their implementation.			✓
Implementing Actions:			✓
(a) Document, record, and monitor existing conditions, populations, and locations of flora and fauna communities.			✓
(b) Implement Federal and State policies that require a reduction of greenhouse-gas emissions.			✓
(c) Establish a baseline inventory of available natural resources and their respective carrying capacities.			✓
Analysis: **Although no construction activities are currently proposed, the proposed action does present opportunities to support future development within the Project District. Any future development will be evaluated to assess the potential for environmental and socio-economic impacts and will advance proposed mitigation measures.**			
Objective:			
(4) Educate residents and visitors about responsible stewardship practices and the interconnectedness of the natural environment and people.			✓
Policies:			
(a) Expand education about native flora, fauna, and ecosystems.			✓
(b) Align priorities to recognize that the health of the natural environment and the health of people are inextricably linked.			✓
(c) Promote programs and incentives that decrease greenhouse-gas emissions and improve environmental stewardship.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
B. PRESERVE LOCAL CULTURES AND TRADITIONS			
Goal: Maui County will foster a spirit of pono and protect, perpetuate, and reinvigorate its residents" multi-cultural values and traditions to ensure that current and future generations will enjoy the benefits of their rich island heritage.		✓	
Objective:			
(1) Perpetuate the Hawaiian culture as a vital force in the lives of residents.		✓	
Policies:			
(a) Protect and preserve access to mountain, ocean, and island resources for traditional Hawaiian cultural practices.			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(b) Prohibit inappropriate development of cultural lands and sites that are important for traditional Hawaiian cultural practices, and establish mandates for the special protection of these lands in perpetuity.		✓	
(c) Promote the use of ahupuaʻa and moku management practices.			✓
(d) Encourage the use of traditional Hawaiian architecture and craftsmanship.			✓
(e) Promote the use of the Hawaiian language.			✓
(f) Recognize and preserve the unique natural and cultural characteristics of each ahupuaʻa or district.		✓	
(g) Encourage schools to promote broader incorporation of Hawaiian and other local cultures' history and values lessons into curriculum.			✓
(h) Ensure the protection of Native Hawaiian rights.			✓
(i) Promote, encourage, and require the correct use of traditional place names, particularly in government documents, signage, and the tourism industry.			✓
Implementing Actions:			
(a) Establish alternative land use and overlay zoning designations that recognize and preserve the unique natural and cultural characteristics of each ahupuaʻa or district.			✓
(b) Develop requirements for all County applicants to perpetuate and use proper traditional place names in all applications submitted.			✓
Analysis: **Although no construction activities are currently proposed, an archaeological and related cultural assessment was undertaken to assess the potential for impacts related to any future development action within the Project District. A program of data recovery and monitoring was recommended in order to avoid or reduce potential impacts to know significant areas.**			
Objective:			
(2) Emphasize respect for our island lifestyle and our unique local cultures, family, and natural environment.			✓
Policies:			
(a) Acknowledge the Hawaiian culture as the host culture, and foster respect and humility among residents and visitors toward the Hawaiian people and their practices.			✓
(b) Perpetuate a respect for diversity, and recognize the historic blending of cultures and ethnicities.			✓
(c) Encourage the perpetuation of each culture's unique cuisine, attire, dance, music, and folklore, and other unique island traditions and recreational activities.			✓
(d) Recognize the interconnectedness between the natural environment and the cultural heritage of the islands.			✓
(e) Protect and prioritize funding for recreational activities that support local cultural practices, such as surfing, fishing, and outrigger-canoe paddling.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
Objective:			
(3) Preserve for present and future generations the opportunity to know and experience the arts, culture, and history of Maui County.			✓
Policies:			
(a) Foster teaching opportunities for cultural practitioners to share their knowledge and skills.			✓
(b) Support the development of cultural centers.			✓
(c) Broaden opportunities for public art and the display of local artwork.			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(d) Foster the Aloha Spirit by celebrating the Hawaiian host culture and other Maui County cultures through support of cultural-education programs, festivals, celebrations, and ceremonies.			✓
(e) Support the perpetuation of Hawaiian arts and culture.			✓
(f) Support programs and activities that record the oral and pictorial history of residents.			✓
(g) Support the development of repositories for culture, history, genealogy, oral history, film, and interactive learning.			✓
Implementing Actions:			
(a) Establish incentives for the display of public art.			✓
(b) Establish centers and programs of excellence for the perpetuation of Hawaiian arts and culture.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
Objective:			
(4) Preserve and restore significant historic architecture, structures, cultural sites, cultural districts, and cultural landscapes.		✓	
Policies:			
(a) Support the development of island-wide historic, archaeological, and cultural resources inventories.		✓	
(b) Promote the rehabilitation and adaptive reuse of historic sites, buildings, and structures to perpetuate a traditional sense of place.			✓
(c) Identify a sustainable rate of use and set forth specific policies to protect cultural resources.			✓
(d) Protect and preserve lands that are culturally or historically significant.		✓	
(e) Support programs that protect, record, restore, maintain, provide education about, and interpret cultural districts, landscapes, sites, and artifacts in both natural and museum settings.			✓
(f) Perpetuate the authentic character and historic integrity of rural communities and small towns.			✓
(g) Seek solutions that honor the traditions and practices of the host culture while recognizing the needs of the community.			✓
(h) Support the development of an Archaeological District Ordinance.			✓
(i) Protect summits, slopes, and ridgelines from inappropriate development.			✓
(j) Support the registering of important historic sites on the State and Federal historic registers.			✓
(k) Provide opportunities for public involvement with restoration and enhancement of all types of cultural resources.			✓
(l) Foster partnerships to identify and preserve or revitalize historic and cultural sites.			✓
Implementing Actions:			
(a) Identify, develop, map, and maintain an inventory of locally significant natural. cultural, and historical resources for protection.		✓	
(b) Prepare, continually update, and implement a cultural-management plan for cultural sites, districts, and landscapes, where appropriate.			✓
(c) Enact an Archaeological District Ordinance.			✓
(d) Nominate important historic sites to the State and Federal historic registers.			✓
Analysis: **As previously noted, an archaeological and related cultural assessment was undertaken to assess the potential for impacts related to any future development action**			

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
within the Project District. A program of data recovery and monitoring was recommended in order to avoid or reduce potential impacts to know significant areas.			
C. IMPROVE EDUCATION			
Goal: Residents will have access to lifelong formal and informal educational options enabling them to realize their ambitions.			✓
Objective:			
(1) Encourage the State to attract and retain school administrators and educators of the highest quality.			✓
Policies:			
(a) Encourage the State to provide teachers with nationally competitive pay and benefit packages.			✓
(b) Encourage the State to ensure teachers will have the teaching tools and support staff needed to provide students with an excellent education.			✓
(c) Explore Maui County district- and school-based decision making in public education.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
Objective:			
(2) Provide nurturing learning environments that build skills for the 21st century.			✓
Policies:			
(a) Expand professional-development opportunities in disciplines that support the economic-development goals of Maui County.			✓
(b) Plan for demographic, social, and technological changes in a timely manner.			✓
(c) Encourage collaborative partnerships to improve conditions of learning environments.			✓
(d) Promote development of neighborhood schools and educational centers.			✓
(e) Integrate schools, community parks, and playgrounds, and expand each community's use of these facilities.			✓
(f) Support coordination between land use and school-facility planning agencies.			✓
(g) Encourage the upgrade and ongoing maintenance of public-school facilities.			✓
(h) Encourage the State Department of Education to seek reliable, innovative, and alternative methods to support a level of per-pupil funding that places Hawai'i among the top tier of states nationally for its financial support of public schools.			✓
(i) Encourage the State to promote healthier, more productive learning environments, including by providing healthy meals, more physical activity, natural lighting, and passive cooling.			✓
(j) Encourage the State to support the development of benchmarks to measure the success of Hawai'i's public-education system and clarify lines of accountability.			✓
(k) Design school and park facilities in proximity to residential areas.			✓
(l) Support technology- and natural-environment-based learning.			✓
(m) Encourage the State to support lower student-teacher ratios in public schools.			✓
(n) Encourage alternative learning and educational opportunities.			✓
Implementing Actions:			
(a) Develop safe walking and bicycling programs for school children.			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
Objective:			
(3) Provide all residents with educational opportunities that can help them better understand themselves and their surroundings and allow them to realize their ambitions.			✓
Policies:			
(a) Encourage the State to improve Maui Community College as a comprehensive community college that will serve each community.			✓
(b) Broaden the use of technology and telecommunications to improve educational opportunities throughout the County.			✓
(c) Attract graduate-level research programs and institutions.			✓
(d) Promote the teaching of traditional practices, including aquaculture; subsistence agriculture; Pacific Island, Asian, and other forms of alternative health practices; and indigenous Hawaiian architecture.			✓
(e) Integrate cultural and environmental values in education, including self-sufficiency and sustainability.			✓
(f) Foster a partnership and ongoing dialogue between business organizations, formal educational institutions, and vocational training centers to tailor learning and mentoring programs to County needs.			✓
(g) Ensure teaching of the arts to all ages.			✓
(h) Expand and develop vocational learning opportunities by establishing trade schools.			✓
(i) Encourage the State to integrate financial and economic literacy in elementary, secondary, and higher-education levels.			✓
Implementing Actions:			
(a) Encourage the State to establish a four-year university, and support the development of other higher-education institutions to enable residents to obtain bachelor degrees and postgraduate degrees in Maui County.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
Objective:			
(4) Maximize community-based educational opportunities.			✓
Policies:			
(a) Encourage the State and others to expand pre-school, after-school, and homebased (parent-child) learning.			✓
(b) Support public-private partnerships to develop youth-internship, -apprenticeship, and -mentoring programs.			✓
(c) Support the development of a wide range of informal educational and cultural programs for all residents.			✓
(d) Improve partnerships that utilize the skills and talents at Hawai'i's colleges and universities to benefit the County.			✓
(e) Support career-development and job-recruitment programs and centers.			✓
(f) Attract learning institutions and specialty schools to diversify and enhance educational opportunities.			✓
(g) Expand education of important life skills for the general public.			✓
(h) Support community facilities such as museums, libraries, nature centers, and open spaces that provide interactive-learning opportunities for all ages.			✓

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Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
D. STRENGTHEN SOCIAL AND HEALTHCARE SERVICES			
Goal: Health and social services in Maui County will fully and comprehensively serve all segments of the population.			✓
Objective:			
(1) In cooperation with the Federal and State governments and nonprofit agencies, broaden access to social and healthcare services and expand options to improve the overall wellness of the people of Maui County.			✓
Policies:			
(a) Work with other levels of government and the nonprofit sector to expand services to address hunger, homelessness, and poverty.			✓
(b) Support the improvement of opportunities for disadvantaged youth, encourage the tradition of hanai relatives, and support expanded opportunities for foster care.			✓
(c) Support expanded long-term-care options, both in institutions and at home, for patients requiring ongoing assistance and medical attention.			✓
(d) Encourage the expansion and improvement of local hospitals, facilitate the establishment of new healthcare facilities, and facilitate prompt and high-quality emergency- and urgent-care services for all.			✓
(e) Support broadened access to affordable health insurance and health care, and recognize the unique economic challenges posed to families when healthcare services are provided off-island.			✓
(f) Encourage equal access to social and healthcare services through both technological and traditional means.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
Objective:			
(2) Encourage the Federal and State governments and the private sector to improve the quality and delivery of social and healthcare services.			✓
Policies:			
(a) Strengthen partnerships with government, nonprofit, and private organizations to provide funding and to improve counseling and other assistance to address substance abuse, domestic violence, and other pressing social challenges.			✓
(b) Encourage the State to improve the quality of medical personnel, facilities, services, and equipment.			✓
(c) Encourage investment to improve the recruitment of medical professionals and the quality of medical facilities and equipment throughout Maui County.			✓
(d) Promote the development of continuum-of-care facilities that provide assisted living, hospice, home-care, and skilled-nursing options allowing the individual to be cared for in a manner congruent with his or her needs and desires.			✓
(e) Support improved social, healthcare, and governmental services for special needs populations.			✓
(f) Plan for the needs of an aging population and the resulting impacts on social services, housing, and healthcare delivery.			✓
(g) Improve coordination among the police, the courts, and the public in the administration of social and healthcare services.			✓
(h) Support programs that address needs of veterans.			✓
(i) Support programs that address the needs of immigrants.			✓
Implementing Actions:			
(a) Invest in programs designed to improve the general welfare and quality of life of			✓

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COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
Native Hawaiians.			
(b) Assist and facilitate the State Department of Public Safety and others in efforts to strengthen programs and facilities that will improve the mental and social health of incarcerated people and assist in prison inmates' successful transition back into Maui County communities.			✓
(c) Develop and maintain a comprehensive index that will measure the health and wellness needs of families.			✓
(d) Provide heliports countywide for emergency health and safety purposes.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
Objective:			
(3) Strengthen public-awareness programs related to healthy lifestyles and social and medical services.			✓
Policies:			
(a) Expand public awareness about personal safety and crime prevention.			✓
(b) Encourage residents to pursue education and training for careers in the healthcare, social services, and community-development fields.			✓
(c) Expand public awareness and promote programs to achieve healthy eating habits and drug-free lifestyles.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
E. EXPAND HOUSING OPPORTUNITIES FOR RESIDENTS			
Goal: Quality, island-appropriate housing will be available to all residents.			✓
Objective:			
(1) Reduce the affordable housing deficit for residents.			✓
Policies:			
(a) Ensure that an adequate and permanent supply of affordable housing, both new and existing units, is made available for purchase or rental to our resident and/or workforce population, with special emphasis on providing housing for low- to moderate-income families, and ensure that all affordable housing remains affordable in perpetuity.			✓
(b) Seek innovative ways to lower housing costs without compromising the quality of our island lifestyle.			✓
(c) Seek innovative methods to secure land for the development of low- and moderate- income housing.			✓
(d) Provide the homeless population with emergency and transitional shelter and other supportive programs.			✓
(e) Provide for a range of senior-citizen and special needs housing choices on each island that affordably facilitates a continuum of care and services.			✓
(f) Support the Department of Hawaiian Home Lands' development of homestead lands.			✓
(g) Manage property-tax burdens to protect affordable resident homeownership.			✓
(h) Explore taxation mechanisms to increase and maintain access to affordable housing.			✓
(i) Improve awareness regarding available affordable homeowner's insurance.			✓
(j) Redevelop commercial areas with a mixture of affordable residential and business uses, where appropriate.			✓
(k) Ensure residents are given priority to obtain affordable housing units developed in their communities, consistent with all applicable regulations.			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(l) Establish pricing for affordable housing that is more reflective of Maui County's workforce than the United States Housing and Urban Development's median-income estimates for Maui County.			✓
(m) Develop neighborhoods with a mixture of accessible and integrated community facilities and services.			✓
(n) Provide alternative regulatory frameworks to facilitate the use of Kuleana lands by the descendants of Native Hawaiians who received those lands pursuant to the Kuleana Act of 1850.			✓
(o) Work with lending institutions to expand housing options and safeguard the financial security of homeowners.			✓
(p) Promote the use of the community land trust model and other land-lease and land- financing options.			✓
(q) Support the opportunity to age in place by providing accessible and appropriately designed residential units.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
Objective:			
(2) Increase the mix of housing types in towns and neighborhoods to promote sustainable land use planning, expand consumer choice, and protect the County's rural and small town character.			✓
Policies:			
(a) Seek innovative ways to develop 'ohana cottages and accessory-dwelling units as affordable housing.			✓
(b) Design neighborhoods to foster interaction among neighbors.			✓
(c) Encourage a mix of social, economic, and age groups within neighborhoods.			✓
(d) Promote infill housing in urban areas at scales that capitalize on existing infrastructure, lower development costs, and are consistent with existing or desired patterns of development.			✓
(e) Encourage the building industry to use environmentally sustainable materials, technologies, and site planning.			✓
(f) Develop workforce housing in proximity to job centers and transit facilities.			✓
(g) Provide incentives to developers and owners who incorporate green building practices and energy-efficient technologies into their housing developments.			✓
Implementing Actions:			
(a) Revise laws to support neighborhood designs that incorporate a mix of housing types that are appropriate for island living.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
Objective:			
(3) Increase and maintain the affordable housing inventory.			✓
Policies:			
(a) Recognize housing as a basic human need, and work to fulfill that need.			✓
(b) Prioritize available infrastructure capacity for affordable housing.			✓
(c) Improve communication, collaboration, and coordination among housing providers and social-service organizations.			✓
(d) Study future projected housing needs, monitor economic cycles, and prepare for future conditions on each island.			✓
(e) Develop public-private and nonprofit partnerships that facilitate the construction			✓

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COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
of quality affordable housing.			
(f) Streamline the review process for high-quality, affordable housing developments that implement the goals, objectives, and policies of the General Plan.			✓
(g) Minimize the intrusion of housing on prime, productive, and potentially productive agricultural lands and regionally valuable agricultural lands.			✓
(h) Encourage long-term residential use of existing and future housing to meet residential needs.			✓
Implementing Actions:			
(a) Develop policies to even out the peaks and valleys in Maui County's construction-demand cycles.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
Objective:			
(4) Expand access to education related to housing options, homeownership, financing, and residential construction.			✓
Policies:			
(a) Broaden access to information about County, State, and Federal programs that provide financial assistance to renters and home buyers.			✓
(b) Expand access to information about opportunities for homeownership and self-help housing.			✓
(c) Educate residents about making housing choices that support their individual needs, the needs of their communities, and the health of the islands' natural systems.			✓
(d) Improve home buyers' education on all aspects of homeownership.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
F. STRENGTHEN THE LOCAL ECONOMY			
Goal: Maui County's economy will be diverse, sustainable, and supportive of community values.		✓	
Objective:			
(1) Promote an economic climate that will encourage diversification of the County's economic base and a sustainable rate of economic growth.		✓	
Policies:			
(a) Support economic decisions that create long-term benefits.		✓	
(b) Promote lifelong education, career development, and technical training for existing and emerging industries.			✓
(c) Invest in infrastructure, facilities, and programs that foster economic diversification.			✓
(d) Support and promote locally produced products and locally owned operations and businesses that benefit local communities and meet local demand.			✓
(e) Support programs that assist industries to retain and attract more local labor and facilitate the creation of jobs that offer a living wage.			✓
(f) Encourage work environments that are safe, rewarding, and fulfilling to employees.			✓
(g) Support home-based businesses that are appropriate for and in character with the community.			✓
(h) Encourage businesses that promote the health and well-being of the residents, produce value-added products, and support community values.			✓
(i) Foster an understanding of the role of all industries in our economy.			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(j) Support efforts to improve conditions that foster economic vitality in our historic small towns.			✓
(k) Support and encourage traditional host-culture businesses and indigenous agricultural practices.			✓
(l) Support public and private entities that assist entrepreneurs in establishing locally operated businesses.			✓
Implementing Actions:			
(a) Develop regulations and programs that support opportunities for local merchants, farmers, and small businesses to sell their goods and services directly to the public.			✓
(b) Monitor the carrying capacity of the islands' social, ecological, and infrastructure systems with respect to the economy.			✓
Analysis: **Implementation of the amended Project District will support the economy and enhance the social stability and well-being for the people of Lānaʻi by providing opportunities for future resort-related jobs.**			
Objective:			
(2) Diversify and expand sustainable forms of agriculture and aquaculture.			✓
Policies:			
(a) Support programs that position Maui County's agricultural products as premium export products.			✓
(b) Prioritize the use of agricultural land to feed the local population, and promote the use of agricultural lands for sustainable and diversified agricultural activities.			✓
(c) Capitalize on Hawaiʻi's economic opportunities in the ecologically sensitive aquaculture industries.			✓
(d) Assist farmers to help make Maui County more self-sufficient in food production.			✓
(e) (e) Support ordinances, programs, and policies that keep agricultural land and water available and affordable to farmers.			✓
(f) Support a tax structure that is conducive to the growth of the agricultural economy.			✓
(g) (g) Enhance County efforts to monitor and regulate important agricultural issues.			✓
(h) Support education, research, and facilities that strengthen the agricultural industry.			✓
(i) Maintain the genetic integrity of existing food crops.			✓
(j) Encourage healthy and organic farm practices that contribute to land health and regeneration.			✓
(k) Support cooperatives and other types of nontraditional communal farming and efforts.			✓
(l) Encourage methods of monitoring and controlling genetically modified crops to prevent adverse effects.			✓
(m) Work with the State to ease the permitting process for the revitalization of traditional fish ponds.			✓
Implementing Actions:			
(a) (a) Redirect efforts in the Office of Economic Development to further facilitate the development of the agricultural section and to monitor agricultural legislation and issues.			✓
(b) Publicly identify, with signage and other means, the field locations of all genetically modified crops.			✓
(c) (c) Create agricultural parks in areas distant from genetically modified crops.			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
Objective:			
(3) Support a visitor industry that respects the resident culture and the environment.		✓	
Policies:			
(a) Promote traditional Hawaiian practices in visitor-related facilities and activities.			✓
(b) Encourage and educate the visitor industry to be sensitive to island lifestyles and cultural values.			✓
(c) Encourage a spirit of welcome for residents at visitor facilities, such as by offering kamaʻaina incentives and discount programs.			✓
(d) Support the renovation and enhancement of existing visitor facilities.		✓	
(e) Support policies, programs, and a tax structure that redirect the benefits of the visitor industry back into the local community.			✓
(f) Encourage resident ownership of visitor-related businesses and facilities.			✓
(g) Develop partnerships to provide educational and training facilities to residents employed in the visitor industry.			✓
(h) Foster an understanding of local cultures, customs, and etiquette, and emphasize the importance of the Aloha Spirit as a common good for all.			✓
(i) Support the diversification, development, evolution, and integration of the visitor industry in a way that is compatible with the traditional, social, economic, spiritual, and environmental values of island residents			✓
(j) Improve collaboration between the visitor industry and the other sectors of Maui County's economy.			✓
(k) Perpetuate an authentic image of the Hawaiian culture and history and an appropriate recognition of the host culture.			✓
(l) Support the programs and initiatives outlined in the Maui County Tourism Strategic Plan 2006-2015.			✓
(m) Promote water conservation, beach conservation, and open-space conservation in areas providing services for visitors.			✓
(n) Recognize the important contributions that the visitor industry makes to the County's economy, and support a healthy and vibrant visitor industry.		✓	
Analysis: **The proposed action indirectly supports the economic objectives and policies related to the visitor industry as implementation of the proposed action presents opportunities for future development of resort-related uses and amenities.**			
Objective:			
(4) Expand economic sectors that increase living-wage job choices and are compatible with community values.			✓
Policies:			
(a) Support emerging industries, including the following: • Health and wellness industry; • Sports and recreation industry; • Film and entertainment industry; • Arts and culture industry; • Renewable-energy industry; • Research and development industry; • High-technology and knowledge-based industries; • Education and training industry; • Ecotourism industry; and • Agritourism industry.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
G. IMPROVE PARKS AND PUBLIC FACILITIES			
Goal: A full range of island-appropriate public facilities and recreational opportunities will be provided to improve the quality of life for residents and		✓	

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
visitors.			
Objective:			
(1) Expand access to recreational opportunities and community facilities to meet the present and future needs of residents of all ages and physical abilities.		✓	
Policies:			
(a) Protect, enhance, and expand access to public shoreline and mountain resources.			✓
(b) Expand and enhance the network of parks, multi-use paths, and bikeways.		✓	
(c) Assist communities in developing recreational facilities that promote physical fitness.			✓
(d) Expand venue options for recreation and performances that enrich the lifestyles of Maui County's people.			✓
(e) Expand affordable recreational and after-school programs for youth.			✓
(f) Encourage and invest in recreational, social, and leisure activities that bring people together and build community pride.			✓
(g) Promote the development and enhancement of community centers, civic spaces, and gathering places throughout our communities.			✓
(h) Expand affordable access to recreational opportunities that support the local lifestyle.			✓
Implementing Actions:			
(a) Identify and reserve lands for cemeteries, and preserve existing cemeteries on all islands, appropriately accommodating varying cultural and, faith-based traditions.			✓
Analysis: **The proposed action results in a net increase in lands designated Park and Open Space within the Project District. As such, the proposed action has an indirect impact upon the objective and policies related to parks and recreational opportunities as this increase in Park and Open Space sub-designated lands present opportunities for additional recreational resources to be developed.**			
Objective:			
(2) Improve the quality and adequacy of community facilities.			✓
Policies:			
(a) Provide an adequate supply of dedicated shelters and facilities for disaster relief.			✓
(b) Provide and maintain community facilities that are appropriately designed to reflect the traditions and customs of local cultures.			✓
(c) Ensure that parks and public facilities are safe and adequately equipped for the needs of all ages and physical abilities to the extent reasonable.			✓
(d) Maintain, enhance, expand, and provide new active and passive recreational facilities in ways that preserve the natural beauty of their locations.			✓
(e) Redesign or retrofit public facilities to adapt to major shifts in environmental or urban conditions to the extent reasonable.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
Objective:			
(3) Enhance the funding, management, and planning of public facilities and park lands.			✓
Policies:			
(a) Identify and encourage the establishment of regulated and environmentally sound campgrounds.			✓
(b) Manage park use and control access to natural resources in order to rest sensitive places and utilize the resources in a sustainable manner.			✓

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COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(c) Provide public-recreational facilities that are clean and well-maintained.			✓
(d) Develop partnerships to ensure proper stewardship of the islands' trails, public lands, and access systems.			✓
(e) Ensure that there is an adequate supply of public restrooms in convenient locations.			✓
Implementing Actions:			
(a) Encourage the State to allow for overnight fishing along the shoreline in accordance with management plans and regulations.			✓
(b) Develop and regularly update functional plans, including those relating to public facilities, parks, and campgrounds.			✓
(c) Develop and adopt local level-of service standards for public facilities and parks.			✓
(d) Identify, acquire, and develop lands for parks, civic spaces, and public uses.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
H. DIVERSIFY TRANSPORTATION OPTIONS			
Goal: Maui County will have an efficient, economical, and environmentally sensitive means of moving people and goods.			✓
Objective:			
(1) Provide an effective, affordable, and convenient ground-transportation system that is environmentally sustainable.			✓
Policies:			
(a) Execute planning strategies to reduce traffic congestion.			✓
(b) Plan for the efficient relocation of roadways for the public benefit.			✓
(c) Support the use of alternative roadway designs, such as traffic-calming techniques and modern roundabouts.			✓
(d) Increase route and mode options in the ground-transportation network.			✓
(e) Ensure that roadway systems are safe, efficient, and maintained in good condition.			✓
(f) Preserve roadway corridors that have historic, scenic, or unique physical attributes that enhance the character and scenic resources of communities.			✓
(g) Design new roads and roadway improvements to retain and enhance the existing character and scenic resources of the communities through which they pass.			✓
(h) Promote a variety of affordable and convenient transportation services that meet countywide and community needs and expand ridership of transit systems.			✓
(i) Collaborate with transit agencies, government agencies, employers, and operators to provide planning strategies that reduce peak-hour traffic.			✓
(j) Develop and expand an attractive, island-appropriate, and efficient public transportation system.			✓
(k) Provide and encourage the development of specialized transportation options for the young, the elderly, and persons with disabilities.			✓
(l) Evaluate all alternatives to preserve quality of life before widening roads.			✓
(m) Encourage businesses in the promotion of alternative transportation options for resident and visitor use.			✓
(n) Support the development of carbon-emission standards and an incentive program aimed at achieving County carbon-emission goals.			✓
Implementing Actions:			
(a) Create incentives and implement strategies to reduce visitor dependence on rental cars.			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(b) Establish efficient public-transit routes between employment centers and primary workforce residential areas.			✓
(c) Create attractive, island-appropriate, conveniently located park-and-ride and ride- share facilities.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
Objective:			
(2) Reduce the reliance on the automobile and fossil fuels by encouraging walking, bicycling, and other energy-efficient and safe alternative modes of transportation.			✓
Policies:			
(a) Make walking and bicycling transportation safe and easy between and within communities.			✓
(b) Require development to be designed with the pedestrian in mind.			✓
(c) Design new and retrofit existing rights-of-way with adequate sidewalks, bicycle lanes, or separated multi-use transit corridors.			✓
(d) Support the development of a countywide network of bikeways, equestrian trails, and pedestrian paths.			✓
(e) Support the reestablishment of traditional trails between communities, to the ocean, and through the mountains for public use.			✓
(f) Encourage educational programs to increase safety for pedestrians and bicyclists.			✓
Implementing Actions:			
(a) Design, build, and modify existing bikeways to improve safety and separation from automobiles.			✓
(b) Increase enforcement to reduce abuse of bicycle and pedestrian lanes by motorized vehicles.			✓
(c) Identify non-motorized transportation options as a priority for new sources of funding.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
Objective:			
(3) Improve opportunities for affordable, efficient, safe, and reliable air transportation.			✓
Policies:			
(a) Discourage private helicopter and fixed-wing landing sites to mitigate environmental and social impacts.			✓
(b) Encourage the use of quieter aircraft and noise-abatement procedures for arrivals and departures.			✓
(c) Encourage the modernization and maintenance of air-transportation facilities for general-aviation activities.			✓
(d) Encourage a viable and competitive atmosphere for air carriers to expand service and ensure sufficient intra-County flights and affordable fares for consumers.			✓
(e) Continue to support secondary airports, and encourage the State to provide them with adequate funding.			✓
(f) During Community Plan updates, explore the use of the smaller airports.			✓
(g) Encourage the State to provide efficient, adequate, and affordable parking and transit connections within and around airports.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			

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COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
Objective:			
(4) Improve opportunities for affordable, efficient, safe, and reliable ocean transportation.			✓
Policies:			
(a) Support programs and regulations that reduce the disposal of maritime waste and prevent spills into the ocean.			✓
(b) Encourage the upgrading of harbors to resist damage from natural hazards and disasters.			✓
(c) Encourage the State to study the use of existing harbors and set priorities for future use.			✓
(d) Explore all options to protect the traditional recreational uses of harbors, and mitigate harbor-upgrade impacts to recreational uses where feasible.			✓
(e) Encourage the upgrading of harbors and the separation of cargo and bulk materials from passenger and recreational uses.			✓
(f) Encourage the State to provide for improved capacity at shipping, docking, and storage facilities.			✓
(g) Encourage the State to provide adequate parking facilities and transit connections within and around harbor areas.			✓
(h) Encourage the redevelopment and revitalization of harbors while preserving historic and cultural assets in harbor districts.			✓
(i) Encourage the State to provide adequate facilities for small-boat operations, including small-boat launch ramps, according to community needs.			✓
(j) Support the maintenance and cleanliness of harbor facilities.			✓
(k) Support the redevelopment of harbors as pedestrian-oriented gathering places.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
Objective:			
(5) Improve and expand the planning and management of transportation systems.			✓
Policies:			
(a) Encourage progressive community design and development that will reduce transportation trips.			✓
(b) Require new developments to contribute their pro rata share of local and regional infrastructure costs.			✓
(c) Establish appropriate user fees for private enterprises that utilize public transportation facilities for recreational purposes.			✓
(d) Support the revision of roadway-design criteria and standards so that roads are compatible with surrounding neighborhoods and the character of rural areas.			✓
(e) Plan for multi-modal transportation and utility corridors on each island.			✓
(f) Support designing all transportation facilities, including airport, harbor, and mass- transit stations, to reflect Hawaiian architecture.			✓
(g) Utilize transportation-demand management as an integral part of transportation planning.			✓
(h) Accommodate the planting of street trees and other appropriate landscaping in all public rights-of-way.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
I. IMPROVE PHYSICAL INFRASTRUCTURE			
Goal: Maui County's physical infrastructure will be maintained in optimum condition and will provide for and effectively serve the needs of the County through clean and sustainable technologies.		✓	

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
Objective:			
(1) Improve water systems to assure access to sustainable, clean, reliable, and affordable sources of water.		✓	
Policies:			
(a) Ensure that adequate supplies of water are available prior to approval of subdivision or construction documents.		✓	
(b) Develop and fund improved water-delivery systems.			✓
(c) Ensure a reliable and affordable supply of water for productive agricultural uses.			✓
(d) Promote the reclamation of gray water, and enable the use of reclaimed, gray, and brackish water for activities that do not require potable water.			✓
(e) Retain and expand public control and ownership of water resources and delivery systems.			✓
(f) Improve the management of water systems so that surface-water and groundwater resources are not degraded by overuse or pollution.			✓
(g) Explore and promote alternative water-source-development methods.			✓
(h) Seek reliable long-term sources of water to serve developments that achieve consistency with the appropriate Community Plans.			✓
Implementing Actions:			
(a) Develop a process to review all applications for desalination.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above as no construction activities are currently being proposed. However, it is noted that any potential future development within the Project District is anticipated to be serviced by existing infrastructure systems.**			
Objective:			
(2) Improve waste-disposal practices and systems to be efficient, safe, and as environmentally sound as possible.			✓
Policies:			
(a) Provide sustainable waste-disposal systems and comprehensive, convenient recycling programs to reduce the flow of waste into landfills.			✓
(b) Support innovative and alternative practices in recycling solid waste and wastewater and disposing of hazardous waste.			✓
(c) Encourage vendors and owners of automobile, appliance, and white goods to participate in the safe disposal and recycling of such goods, and ensure greater accountability for large waste producers.			✓
(d) Develop strategies to promote public awareness to reduce pollution and litter, and encourage residents to reduce, reuse, recycle, and compost waste materials.			✓
(e) Pursue improvements and upgrades to existing wastewater and solid-waste systems consistent with current and future plans and the County's Capital Improvement Program.			✓
Implementing Actions:			
(a) Establish recycling, trash-separation, and materials recovery programs and facilities to reduce the flow of waste into landfills.			✓
(b) Study the feasibility of developing environmentally safe waste-to-energy facilities.			✓
(c) Utilize taxes and fees as means to encourage conservation and recycling.			✓
(d) Implement and regularly update the Integrated Solid Waste Management Plan.			✓
(e) Phase out the use of injection wells.			✓

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COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
Objective:			
(3) Significantly increase the use of renewable and green technologies to promote energy efficiency and energy self-sufficiency.			✓
Policies:			
(a) Promote the use of locally renewable energy sources, and reward energy efficiency.			✓
(b) Consider tax incentives and credits for the development of sustainable- and renewable-energy sources.			✓
(c) Expand education about energy conservation and self-sufficiency.			✓
(d) Encourage small-scale energy generation that utilizes wind, sun, water, biowaste, and other renewable sources of energy.			✓
(e) Expand renewable-energy production.			✓
(f) Develop public-private partnerships to ensure the use of renewable energy and increase energy efficiency.			✓
(g) Require the incorporation of locally appropriate energy-saving and green building design concepts in all new developments by providing energy efficient urban design guidelines and amendments to the Building Code.			✓
(h) Encourage the use of sustainable energy to power vehicles.			✓
(i) Promote the retrofitting of existing buildings and new development to incorporate energy-saving design concepts and devices.			✓
(j) Encourage green footprint practices.			✓
(k) Reduce Maui County's dependence on fossil fuels and energy imports.			✓
(l) Support green building practices such as the construction of buildings that aim to minimize carbon dioxide production, produce renewable energy, and recycle water.			✓
(m) Promote and support environmentally friendly practices in all energy sectors.			✓
Implementing Actions:			
(a) Adopt an energy-efficiency policy for Maui County government as a model for other jurisdictions.			✓
(b) Adopt a Green Building Code, and support green building practices.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
Objective:			
(4) Direct growth in a way that makes efficient use of existing infrastructure and to areas where there is available infrastructure capacity.		✓	
Policies:			
(a) Capitalize on existing infrastructure capacity as a priority over infrastructure expansion.		✓	
(b) Planning for new towns should only be considered if a region's growth is too large to be directed into infill and adjacent growth areas.			✓
(c) Utilize appropriate infrastructure technologies in the appropriate locations.			✓
(d) Promote land use patterns that can be provided with infrastructure and public facilities in a cost-effective manner.			✓
(e) Support catchment systems and on-site wastewater treatment in rural areas and aggregated water and wastewater systems in urban areas if they are appropriately located.			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
Implementing Actions:			
(a) Develop a streamlining system for urban infill projects.			✓
(b) Identify appropriate areas for urban expansion of existing towns where infrastructure and public facilities can be provided in a cost-effective manner.			✓
Analysis: **Although no construction activities are currently being proposed, the Project District continues to be located in proximity to existing infrastructure systems such that any future development would not require the provision of new or extension of existing systems. In this regard, the proposed action is indirectly supportive of the above objective and policies.**			
Objective:			
(5) Improve the planning and management of infrastructure systems.		✓	
Policies:			
(a) Provide a reliable and sufficient level of funding to enhance and maintain infrastructure systems.			✓
(b) Require new developments to contribute their pro rata share of local and regional infrastructure costs.			✓
(c) Improve coordination among infrastructure providers and planning agencies to minimize construction impacts.			✓
(d) Maintain inventories of infrastructure capacity, and project future infrastructure needs.			✓
(e) Require social-justice and -equity issues to be considered during the infrastructure-planning process.			✓
(f) Discourage the development of critical infrastructure systems within hazard zones and the tsunami-inundation zone to the extent practical.			✓
(g) Ensure that infrastructure is built concurrent with or prior to development.		✓	
(h) Ensure that basic infrastructure needs can be met during a disaster.			✓
(i) Locate public facilities and emergency services in appropriate locations that support the health, safety, and welfare of each community and that minimize delivery inefficiencies.			✓
(j) Promote the undergrounding of utility and other distribution lines for health safety, and aesthetic reasons.			✓
Implementing Actions:			
(a) Develop and regularly update functional plans for infrastructure systems.			✓
(b) Develop, adopt, and regularly update local or community-sensitive level-of service standards for infrastructure systems.			✓
Analysis: **As previously discussed, any future development within the amended Project District would not require the provision of new or extension of existing infrastructure systems and would instead make prudent use of existing systems. In this regard, the proposed action is indirectly supportive of the above objective and policies.**			
J. PROMOTE SUSTAINABLE LAND USE AND GROWTH MANAGEMENT			
Goal: Community character, lifestyles, economies, and natural assets will be preserved by managing growth and using land in a sustainable manner.		✓	
Objective:			
(1) Improve land use management and implement a directed-growth strategy.		✓	
Policies:			
(a) Establish, map, and enforce urban- and rural-growth limits.			✓
(b) Direct urban and rural growth to designated areas.			✓
(c) Limit the number of visitor-accommodation units and facilities in Community Plan			✓

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COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
Areas.			
(d) Maintain a sustainable balance between the resident, part-time resident, and visitor populations.			✓
(e) Encourage redevelopment and infill in existing communities on lands intended for urban use to protect productive farm land and open-space resources.			✓
(f) Discourage new entitlements for residential, resort, or commercial development along the shoreline.			✓
(g) Restrict development in areas that are prone to natural hazards, disasters, or sea-level rise.			✓
(h) Direct new development in and around communities with existing infrastructure and service capacity, and protect natural, scenic, shoreline, and cultural resources.		✓	
(i) Establish and maintain permanent open space between communities to protect each community's identity.			✓
(j) Support the dedication of land for public uses.			✓
(k) Preserve the public's rights of access to and continuous lateral access along all shorelines.			✓
(l) Enable existing and future communities to be self-sufficient through sustainable land use planning and management practices.			✓
(m) Protect summits, slopes, and ridgelines from inappropriate development.			✓
Implementing Actions:			
(a) Regularly update urban- and rural-growth boundaries and their maps.			✓
(b) Establish transfer and purchase of development rights programs.			✓
(c) Develop and adopt a green infrastructure plan.			✓
(d) Develop studies to help determine a sustainable social, environmental, and economic carrying capacity for each island.			✓
(e) Identify and define resort-destination areas.			✓
Analysis: **The proposed action complements Lānaʻi City's character and the existing uses within the Kōʻele Project District. Any future development would make use of existing infrastructure systems.**			
Objective:			
(2) Improve planning for and management of agricultural lands and rural areas.			✓
Policies:			
(a) Protect prime, productive, and potentially productive agricultural lands to maintain the islands' agricultural and rural identities and economies.			✓
(b) Provide opportunities and incentives for self-sufficient and subsistence homesteads and farms.			✓
(c) Discourage developing or subdividing agriculturally designated lands when non-agricultural activities would be primary uses.			✓
(d) Conduct agricultural-development planning to facilitate robust and sustainable agricultural activities.			✓
Implementing Actions:			
(a) Inventory and protect prime, productive, and potentially productive agricultural lands from competing non-agricultural land uses.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
Objective:			
(3) Design all developments to be in harmony with the environment and to protect each community's sense of place.		✓	

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
Policies:			
(a) Support and provide incentives for green building practices.			✓
(b) Encourage the incorporation of green building practices and technologies into all government facilities to the extent practicable.			✓
(c) Protect and enhance the unique architectural and landscape characteristics of each Community Plan Area, small town, and neighborhood.			✓
(d) Ensure that adequate recreational areas, open spaces, and public-gathering places are provided and maintained in all urban centers and neighborhoods.		✓	
(e) Ensure business districts are distinctive, attractive, and pedestrian-friendly destinations.			✓
(f) Use trees and other forms of landscaping along rights-of-way and within parking lots to provide shade, beauty, urban-heat reduction, and separation of pedestrians from automobile traffic in accordance with community desires.			✓
(g) Where appropriate, integrate public-transit, equestrian, pedestrian, and bicycle facilities, and public rights-of-way as design elements in new and existing communities.			✓
(h) Ensure better connectivity and linkages between land uses.			✓
(i) Adequately buffer and mitigate noise and air pollution in mixed-use areas to maintain residential quality of life.			✓
(j) Protect rural communities and traditional small towns by regulating the footprint, locations, site planning, and design of structures.			✓
(k) Support small-town revitalization and preservation.			✓
(l) Facilitate safe pedestrian access, and create linkages between destinations and within parking areas.			✓
Implementing Actions:			
(a) Establish design guidelines and standards to enhance urban and rural environments.			✓
(b) Provide funding for civic-center and civic-space developments.			✓
(c) Establish and enhance urban forests in neighborhoods and business districts.			✓
Analysis: **The proposed action complements Lānaʻi City's character and the existing uses within the Kōʻele Project District. As noted previously, the proposed action results in a net increase in lands designated Park and Open Space within the Project District. As such, the proposed action has an indirect impact upon the objective and policy noted above.**			
Objective:			
(4) Improve and increase efficiency in land use planning and management.		✓	
Policies:			
(a) Assess the cumulative impact of developments on natural ecosystems, natural resources, wildlife habitat, and surrounding uses.		✓	
(b) Ensure that new development projects requiring discretionary permits demonstrate a community need, show consistency with the General Plan, and provide an analysis of impacts.		✓	
(c) Encourage public and private partnerships to preserve lands of importance, develop housing, and meet the needs of residents.			✓
(d) Promote creative subdivision designs that implement best practices in land development, sustainable management of natural and physical resources, increased pedestrian and bicycle functionality and safety, and the principles of livable communities.			✓
(e) Coordinate with Federal, State, and County officials in order to ensure that land use decisions are consistent with County plans and the vision local populations			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
have for their communities.			
(f) Enable greater public participation in the review of subdivisions.			✓
(g) Improve land use decision making through the use of land- and geographic information systems.			✓
Implementing Actions:			
(a) Institute a time limit and sunsetting stipulations on development entitlements and their implementation.			✓
Analysis: **As discussed previously, although no construction activities are currently proposed, the proposed action does present opportunities to support future development within the Project District. Any future development will be evaluated to assess the potential for environmental and socio-economic impacts and will discuss the action's conformance to State and County land use regulations and controls.**			
K. STRIVE FOR GOOD GOVERNANCE			
Objective:			
(1) Strengthen governmental planning, coordination, consensus building, and decision making.			✓
Policies:			
(a) Plan and prepare for the effects of social, demographic, economic, and environmental shifts.			✓
(b) Plan for and address the possible implications of Hawaiian sovereignty.			✓
(c) Encourage collaboration among government agencies to reduce duplication of efforts and promote information availability and exchange.			✓
(d) Expand opportunities for the County to be involved in and affect State and Federal decision making.			✓
(e) Plan and prepare for large-scale emergencies and contingencies.			✓
(f) Improve public awareness about preparing for natural hazards, disasters, and evacuation plans.			✓
(g) Improve coordination among Federal, State, and County agencies.			✓
Implementing Actions:			
(a) Develop policies, regulations, and programs to protect and enhance the unique character and needs of the County's various communities.			✓
(b) Evaluate and if necessary, recommend modifications to the County Charter that could result in a possible change to the form of governance for Maui County.			✓
(c) Study and evaluate the feasibility and implications of voting in Maui County Council elections.			✓
(d) Study and evaluate the feasibility of authorizing town governments in Maui County.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
Objective:			
(2) Promote civic engagement.			✓
Policies:			
(a) Foster consensus building through in-depth, innovative, and accessible public participatory processes.			✓
(b) Promote and ensure public participation and equal access to government among all citizens.			✓
(c) Encourage a broad cross-section of residents to volunteer on boards and commissions.			✓
(d) Encourage the State to improve its community-involvement processes.			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(e) Support community-based decision making.			✓
(f) Expand advisory functions at the community level.			✓
(g) Expand opportunities for all members of the public to participate in public meetings and forums.			✓
(h) Facilitate the community's ability to obtain relevant documentation.			✓
(i) Increase voter registration and turnout.			✓
Implementing Actions:			
(a) Implement two-way communication using audio-visual technology that allows residents to participate in the County's planning processes.			✓
(b) Ensure and expand the use of online notification of County business and public meetings, and ensure the posting of all County board and commission meeting minutes.			✓
(c) Explore funding mechanisms to improve participation by volunteers on boards and commissions.			✓
(d) Develop a project-review process that mandates early and ongoing consultation in and with communities affected by planning and land use activities.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
Objective:			
(3) Improve the efficiency, reliability, and transparency of County government's internal processes and decision making.			✓
Policies:			
(a) Use advanced technology to improve efficiency.			✓
(b) Simplify and clarify the permitting process to provide uniformity, reliability, efficiency, and transparency.			✓
(c) Improve communication with Lana'i and Moloka'i through the expanded use of information technologies, expanded staffing, and the creation and expansion of government-service centers.			✓
(d) Ensure that laws, policies, and regulations are internally consistent and effectuate the intent of the General Plan.			✓
Implementing Actions:			
(a) Update the County Code to be consistent with the General Plan.			✓
(b) Identify and update County regulations and procedures to increase the productivity and efficiency of County government.			✓
(c) Develop local level-of-service standards for infrastructure, public facilities, and services.			✓
(d) Implement plans through programs, regulations, and capital improvements in a timely manner.			✓
(e) Expand government online services.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
Objective:			
(4) Adequately fund in order to effectively administer, implement, and enforce the General Plan.			✓
Policies:			
(a) Adequately fund, staff, and support the timely update and implementation of planning policy, programs, functional plans, and enforcement activities.			✓
(b) Ensure that the County's General Plan process provides for efficient planning at the County, island, town, and neighborhood level.			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(c) Encourage ongoing professional development, education, and training of County employees.			✓
(d) Encourage competitive compensation packages for County employees to attract and retain County personnel.			✓
(e) Enable the County government to be more responsive in implementing our General Plan and Community Plans.			✓
(f) Review discretionary permits for compliance with the Countywide Policy Plan.			✓
(g) Strengthen the enforcement of County, State, and Federal land use laws.			✓
Implementing Actions:			
(a) Establish penalties to ensure compliance with County, State, and Federal land use laws.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			
Objective:			
(5) Strive for County government to be a role model for implementing cultural and environmental policies and practices.			✓
Policies:			
(a) Educate residents on the benefits of sustainable practices.			✓
(b) Encourage the retention and hiring of qualified professionals who can improve cultural and environmental practices.			✓
(c) Incorporate environmentally sound and culturally appropriate practices in government operations and services.			✓
(d) Encourage all vendors with County contracts to incorporate environmentally sound and culturally appropriate practices.			✓
Analysis: **The proposed action will not have any direct or indirect impact upon the objective and policies listed above.**			

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