

CAR.Committee

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Sent: Sunday, May 31, 2020 3:33 PM
To: CAR.Committee
Cc: James Buika; taram@hawaii.edu
Subject: Presentation for Monday, June 1
Attachments: CAR June 1 2020.pptx

Aloha,

Here is my presentation, though I think with BlueJeans and screen-sharing you don't have to load it -- I can do it from my computer -- but you can make it available to members.

A hui hou,
Michele.

Sea Level Rise, Shoreline Erosion, and Managed Retreat (CAR-9): *Shoreline Planning and Permitting*

Climate Action and Resilience Committee
June 1, 2020



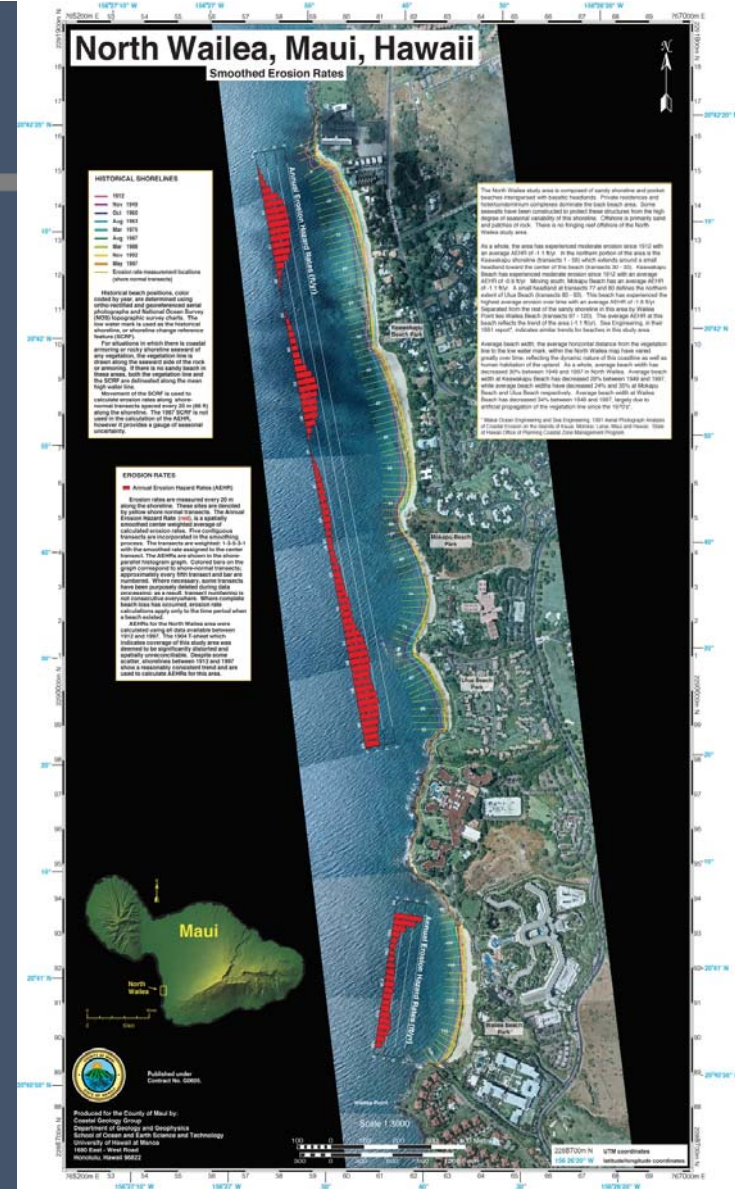
Topics

1. Proposed Shoreline Rule Changes: Setbacks
2. Proposed Shoreline Rule Changes: Emergency Permits
3. Work in Progress: Streamlined Shoreline Permitting
4. Financing Tool: Community Facilities Districts
5. Key Lessons Learned to Improve Shoreline Planning



1. Proposed Shoreline Rule Changes: Setbacks

- Federal Coastal Zone Management Act – 1972
- Hawaii CZM Program – 1977 (HRS 205A)
- Authority given to planning commissions via SMA and Shoreline Rules
- Current Maui Planning Commission Shoreline Rules were last updated in 2003
- Created the first-in-the-state erosion-based shoreline setback
- Proposal to have a SLR-based shoreline setback (the “redline”)



Maui's Existing Shoreline Setback Formula

- Setback is the greater of A or B:

A. Erosion-based Setback

Current Calculation:

$$50 \text{ yrs} \times \text{AEHR} + 25 \text{ feet}$$

*life expectancy of
structure*

*historical
erosion*

*minimum
setback*

Example:

If AEHR = 1.4 ft/yr,

(50 yrs x 1.4 ft/yr) + 25 ft = 95 ft setback

B. Lot Depth-based Setback

Current Calculation:

If lot depth is: Setback is:

100 ft or less.....25 feet

100 to 160 ft.....40 feet

160 ft or more.... 25% of avg.

lot depth

(150 ft max.)

Maui Honokōwai
or use <Shift>-drag to zoom

80% confidence that you will be safe from erosion landward of this line

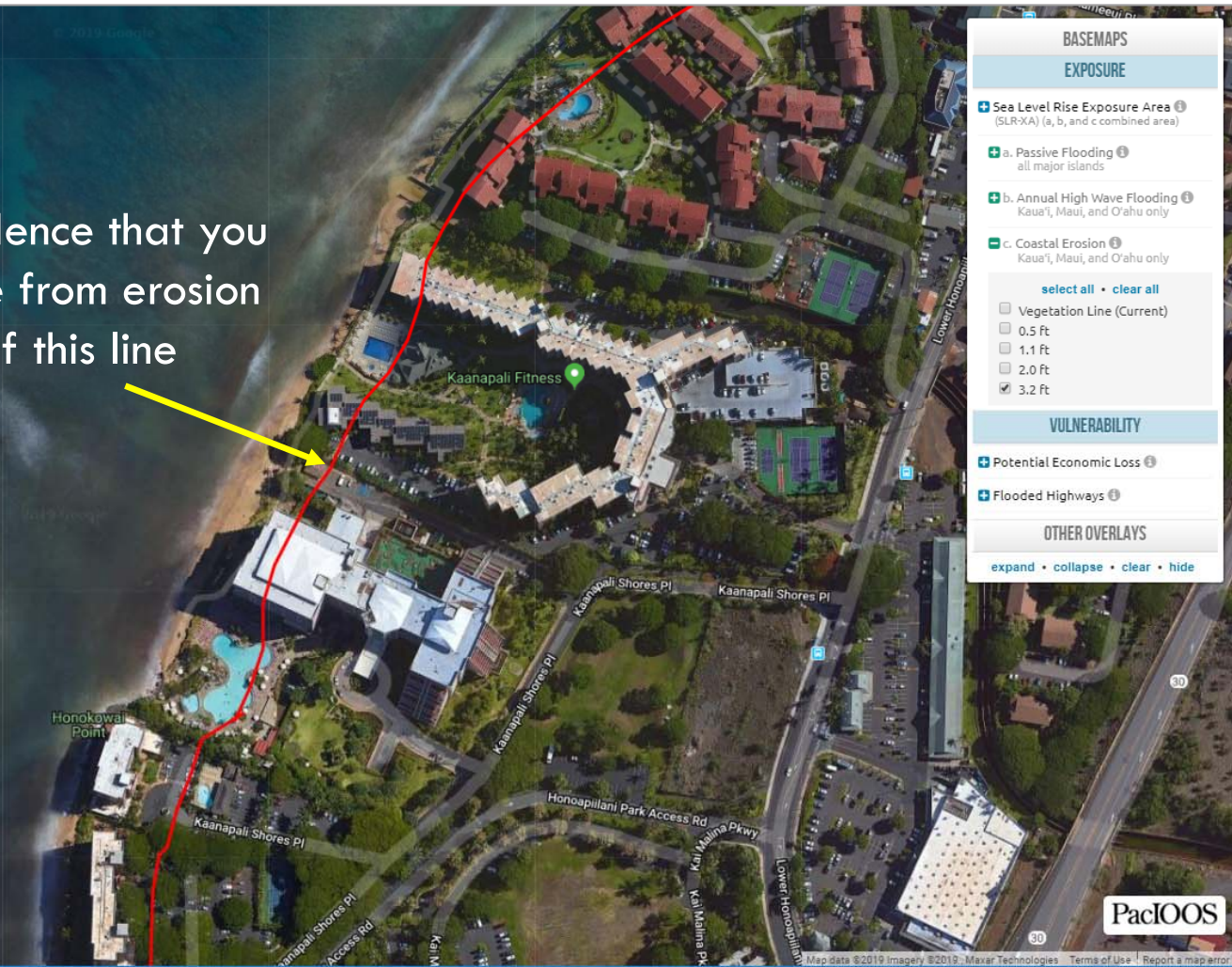


Coastal Erosion at scenario:

- 3.2 ft
- 2.0 ft
- 1.1 ft
- 0.5 ft
- Current (Vegetation)



Google



BASEMAPS

EXPOSURE

- Sea Level Rise Exposure Area (SLR-XA) (a, b, and c combined area)
- Passive Flooding (all major islands)
- Annual High Wave Flooding (Kauai, Maui, and Oahu only)
- Coastal Erosion (Kauai, Maui, and Oahu only)

select all • clear all

- Vegetation Line (Current)
- 0.5 ft
- 1.1 ft
- 2.0 ft
- 3.2 ft

VULNERABILITY

- Potential Economic Loss
- Flooded Highways

OTHER OVERLAYS

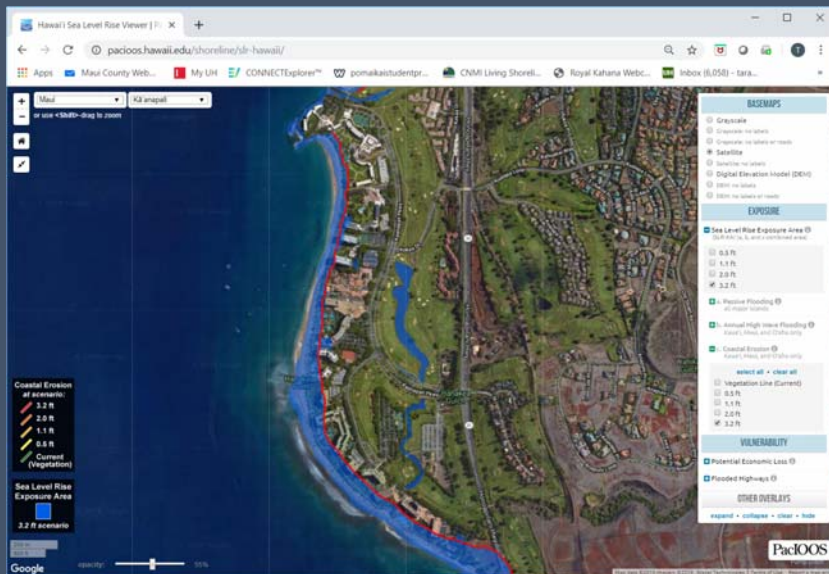
expand • collapse • clear • hide

PacIOOS

Maui's Proposed Setback Formula

- Setback is either A or B:

A. Erosion Hazard Line + 40 ft



B. 200 ft from “shoreline” (mapped by Planning Department) for parcels without a redline

OR

Lot depth setback, IF certified shoreline* exists

If lot depth is: *Setback is:*

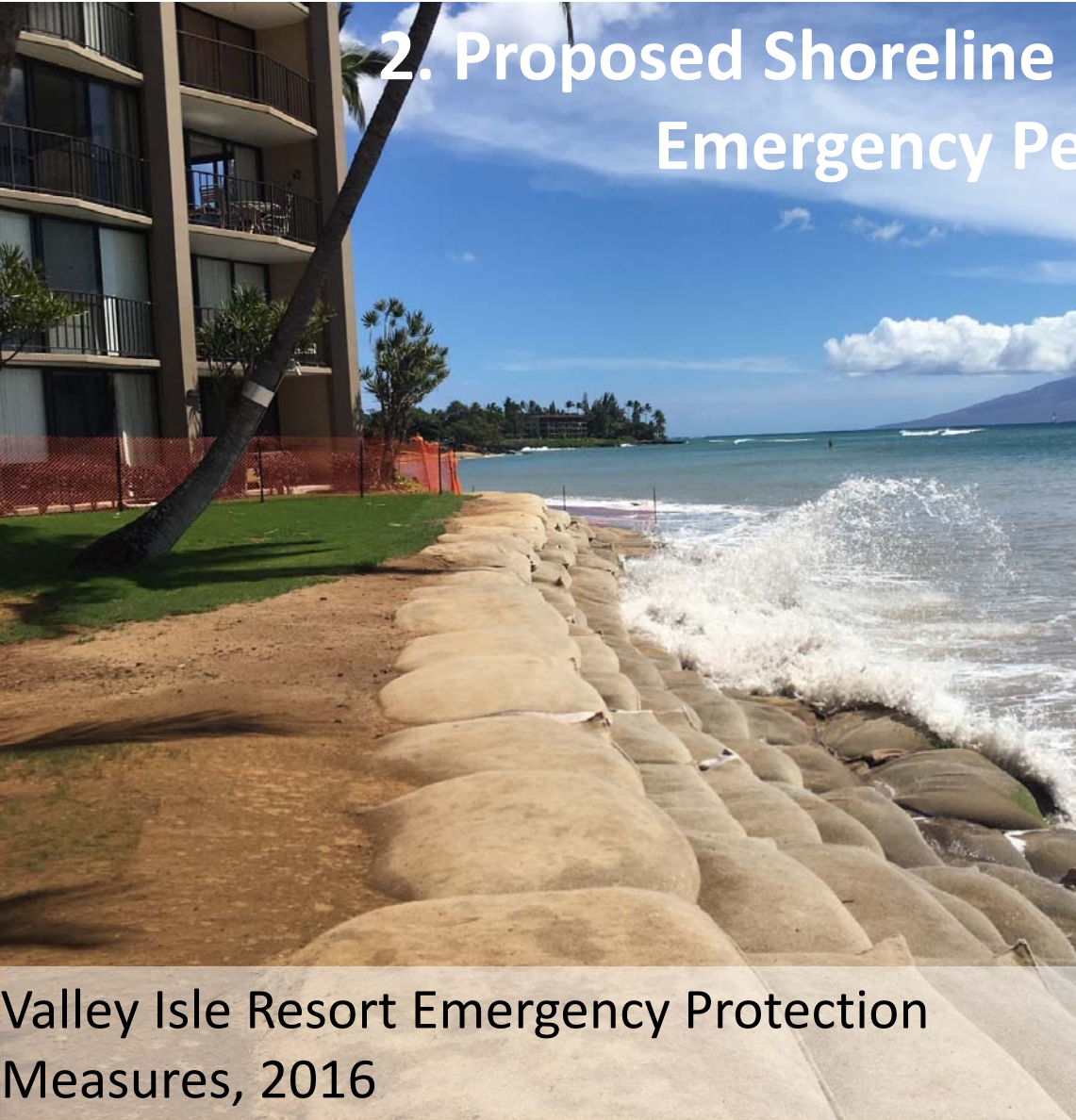
100 ft or less.....25 feet

100 to 160 ft..... 40 feet

160 ft or more.... 25% of avg. lot depth
(150 ft max.)

NOTE: *Certified shoreline survey no longer automatically required; provisions address existing development

2. Proposed Shoreline Rule Changes: Emergency Permits



Valley Isle Resort Emergency Protection Measures, 2016



End Effect to Sands of Kahana, 2018
(foreground)

Proposed Emergency Permit Rule Changes

- Goal: allow temporary measures but make sure they are temporary!
- Within 90 days, applicant provides description of long-term alternatives and timeline to implement
- Broaden use of verbal approvals and allow more time for submittal of written application
- Cooperative pro-active planning effort with Department; understanding of all necessary permits and financing needed

3. Work-in-Progress: Streamlined Shoreline Permitting



Potential Permits for Shoreline Project (18)



Federal

Federal Permits (3)

1. Dept of the Army (DA) Section 404
2. Dept of the Army (DA) Section 10
3. Best Management Practices Plan (BMPP)

County Permits (8)

1. Shoreline Setback Variance (SSV)
2. Special Management Area Permit
3. Building Permit
4. Flood Development Permit
5. Dune Certificate
6. Coastal High Hazard Area Certification
7. Grubbing and Grading Permit
8. Right of Entry (ROE)



Maui County



State of Hawaii

State Permits (7)

1. Shoreline Certification
2. Conservation District Use Permit (CDUP)
3. Section 401 Water Quality Certificate (WQC)
4. National Pollutant Discharge Elimination System Permit (NPDES)
5. Coastal Zone Management Consistency Determination (CZM)
6. Right of Entry (ROE)
7. Grant of Non-Exclusive Easement

4. Financing Tool: Community Facilities Districts



Iroquois Point, Oahu

CFD for Shoreline Preservation



Kahana Bay Example

- If cost = \$24,000,000
- 1,200 owners = \$20,000/unit
- 20 year financing = \$1000/unit/year
- ~\$83/month/owner for 20 years



Kahana Bay Example

Public-Private Partnership since 2015:

- ✓ Five-year shoreline planning effort by the County of Maui and UH-Sea Grant with the Kahana Bay Steering Committee, 2015-2020
- ✓ Begins with Council cost-share funding for Kahana Bay Sand Study in 2016
- ✓ County and UH-Sea Grant have conducted 40-plus community & ownership meetings since 2015
- ✓ Engagement with the US Army Corps of Engineers, completion of \$50,000 Alternatives Study for Kahana Bay, 2016
- ✓ Emergency Permits issued to protect Kahana Bay parcels, 2010 – 2019
- ✓ Formation of the Kahana Bay Steering Committee & Cost-Sharing Agreement
- ✓ Private funding for Environmental Impact Statement, 2017
- ✓ Council adoption of enabling Community Facilities District ordinance (Chapter 3.75, MCC), 2018
- ✓ County Council informational meetings re: Community Facilities Districts, 2019 & 2020



5. Key Lessons Learned to Improve Shoreline Planning

1. Be proactive, not reactive
2. Shift to regional beach cell approach, not parcel approach
3. Seek public–private partnerships
(our beaches are for all of us)
4. Beach restoration is first choice if viable

...and let's not forget...

Council support for future shoreline planning efforts:

- ✓ FY21 Shoreline Planner expansion position
- ✓ FY20 and FY21 Dune Management Coordinator (UH-Sea Grant)
- ✓ FY21 Maalaea Coastal Erosion Study

UH-Sea Grant Extension Agent

- ✓ Providing science-based perspective to policy and planning

A tropical beach scene with palm trees, greenery, sand, and the ocean under a blue sky with clouds. The foreground shows a sandy beach with several footprints leading towards the water. The middle ground features a line of green coastal plants and a row of palm trees. In the distance, the ocean meets a horizon with some landmasses visible under a bright blue sky with scattered white clouds. A few people can be seen near the water's edge.

MAHALO!

QUESTIONS?