

## CARE Committee

---

**From:** Tara Owens <taram@hawaii.edu>  
**Sent:** Tuesday, February 16, 2021 2:34 PM  
**To:** CARE Committee  
**Cc:** Michele McLean; James Buika; Jeffrey Dack; Nicole A. Siegel  
**Subject:** CARE-1(2) presentation by Tara Owens  
**Attachments:** TaraOwens\_CAREworkshop\_02.17.2021.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

Hi CARE committee:

Please see attached. The presentations tomorrow will be a tag team effort, so this slide set will follow an introduction and overview by the Planning Director, and will then be followed by other slides or information delivered by the Planning Director and other Department staff.

Thank you,  
Tara

~~~~~

Tara M. Owens  
Extension Faculty, Coastal Processes and Hazards Specialist  
University of Hawaii Sea Grant College Program  
Science and Technical Advisor to the County of Maui Planning Department  
Office Phone: 808-463-3868  
Cell Phone: 727-501-3226  
[taram@hawaii.edu](mailto:taram@hawaii.edu)

# SHORELINE RULES – ESTABLISHMENT OF SETBACKS

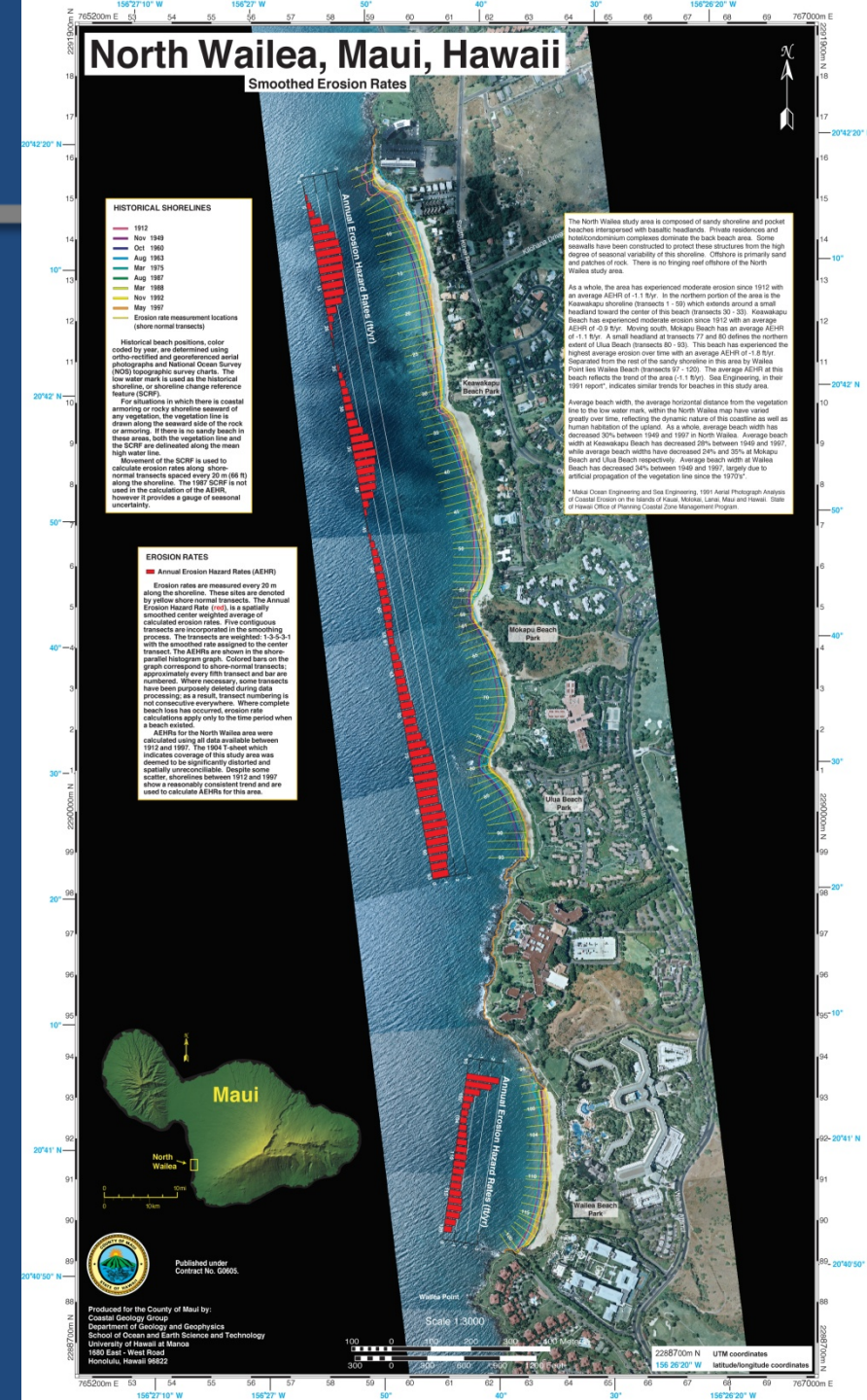
- The purposes of the shoreline rules are:
  - to protect the health, safety and welfare of the public from coastal hazards;
  - to preserve and protect the shoreline area and open space resources;
  - to ensure the public can access, use, and enjoy the shoreline area;
  - for constructed features to be compatible with the shoreline area.
- This is primarily accomplished by shoreline setbacks (part of a “managed retreat” strategy)





# 2003 EROSION-BASED SETBACKS

- Maui County §12-203: “Shoreline Rules for the Maui Planning Commission” (adopted November 27, 2003)
- §12-203-4 Definitions. "Annual erosion hazard rate" [AEHR] means the annual rate of coastal erosion calculated according to the methodology developed by the university of Hawaii...Said rates shall be updated on a regular basis at least once every ten years...



# MAUI'S EXISTING SETBACK CALCULATIONS

- 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:*

*Less than 160 ft ..... 40 feet*

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



# COASTAL EROSION IS WIDESPREAD ON MAUI



photo: Carol Tu'ua

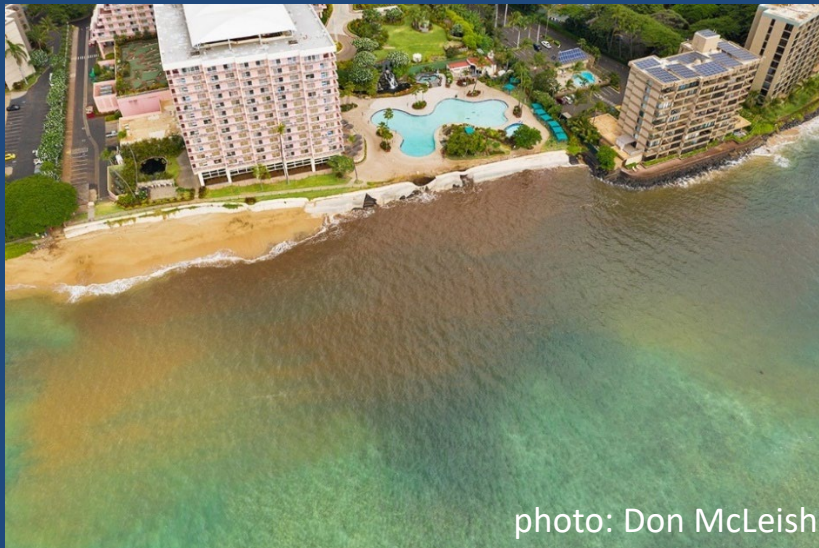
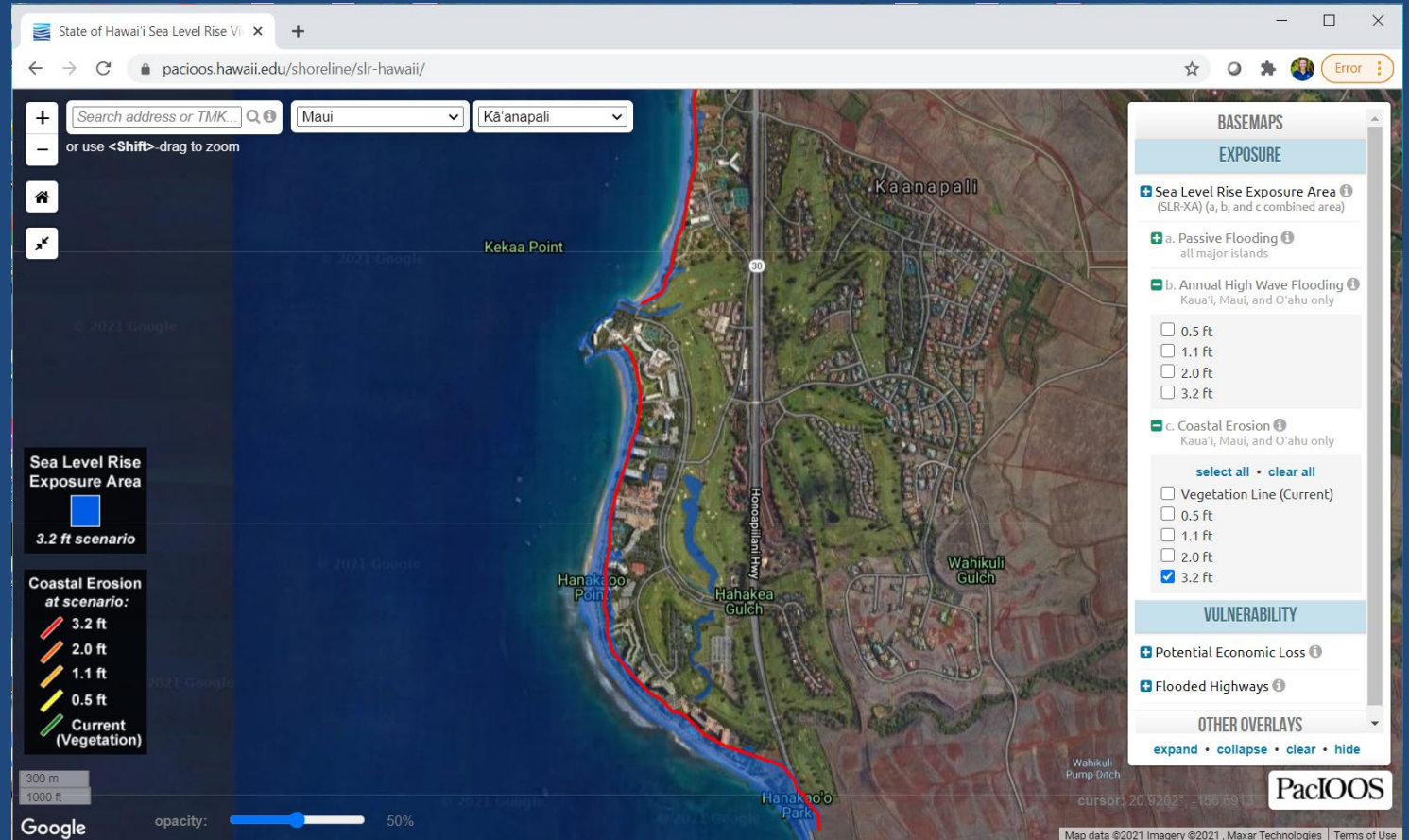
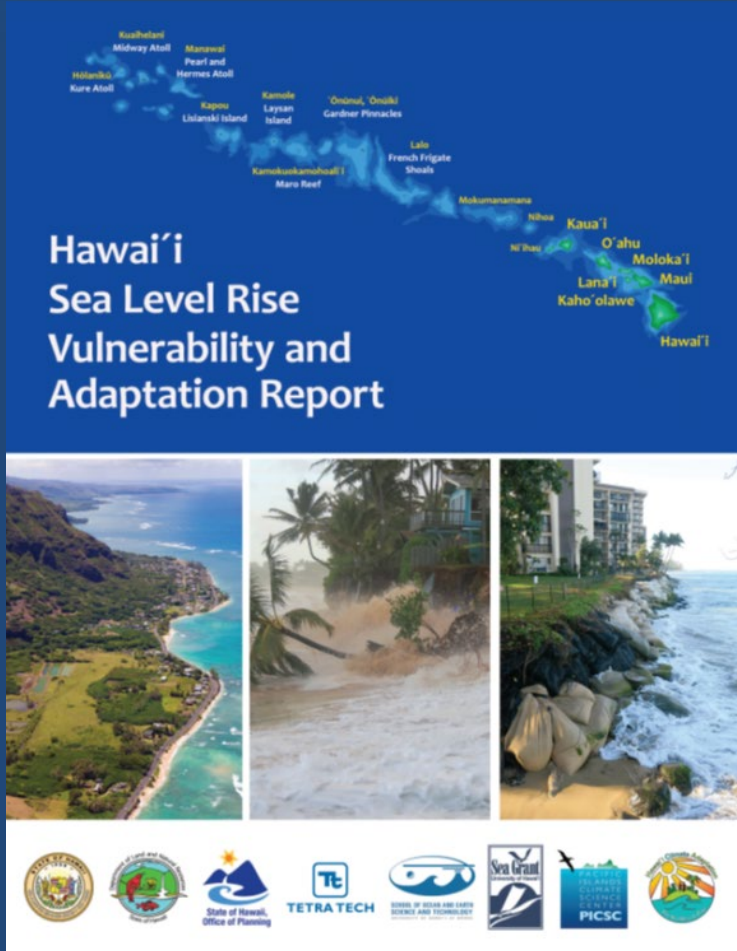


photo: Don McLeish





# THE HAWAII SEA LEVEL RISE REPORT & VIEWER

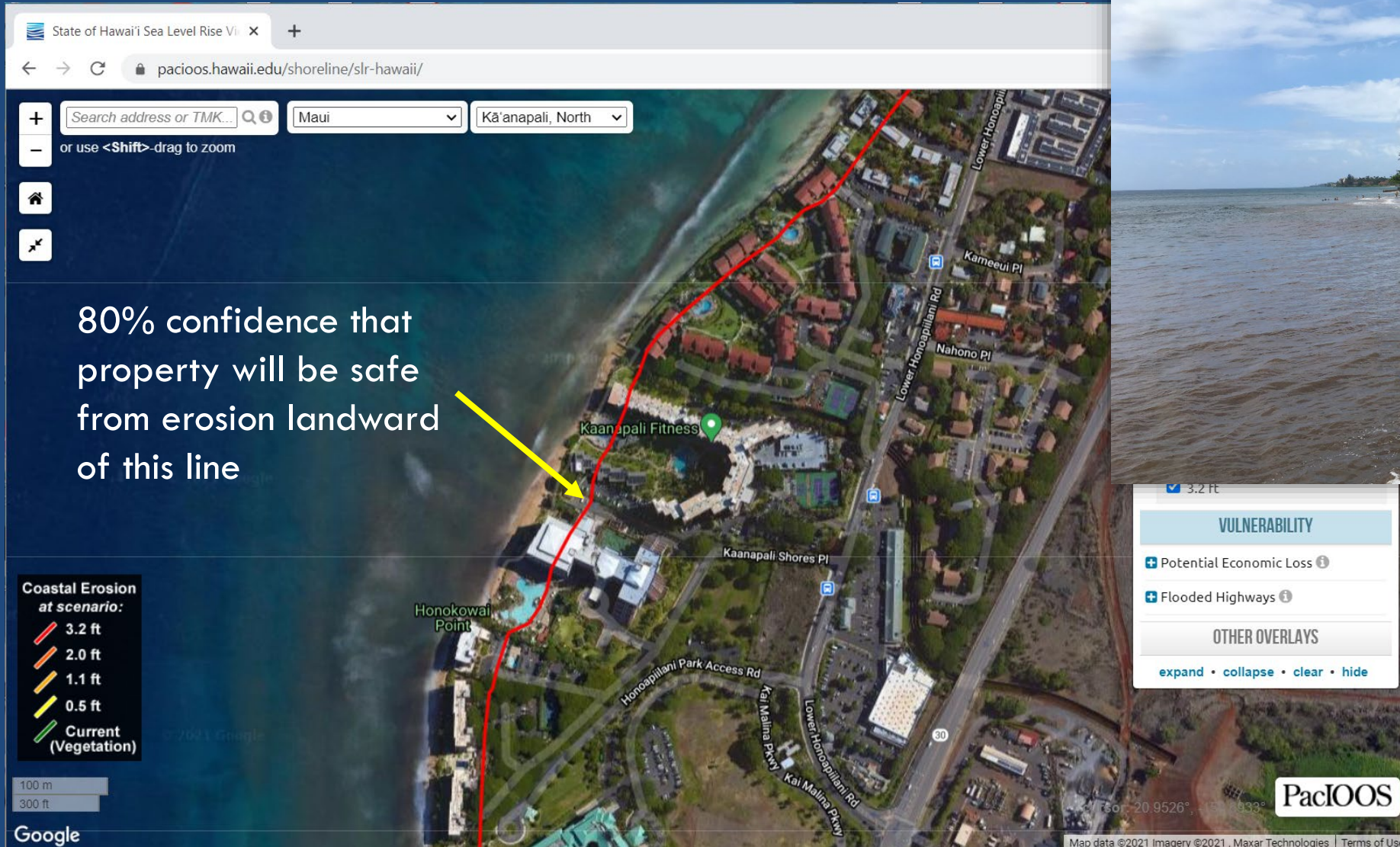


[www.climateadaptation.hawaii.gov](http://www.climateadaptation.hawaii.gov)

[www.hawaii.sealevelriseviewer.org](http://www.hawaii.sealevelriseviewer.org)



# FUTURE EROSION WITH SEA LEVEL RISE



3.2 ft

**VULNERABILITY**

- + Potential Economic Loss
- + Flooded Highways

**OTHER OVERLAYS**

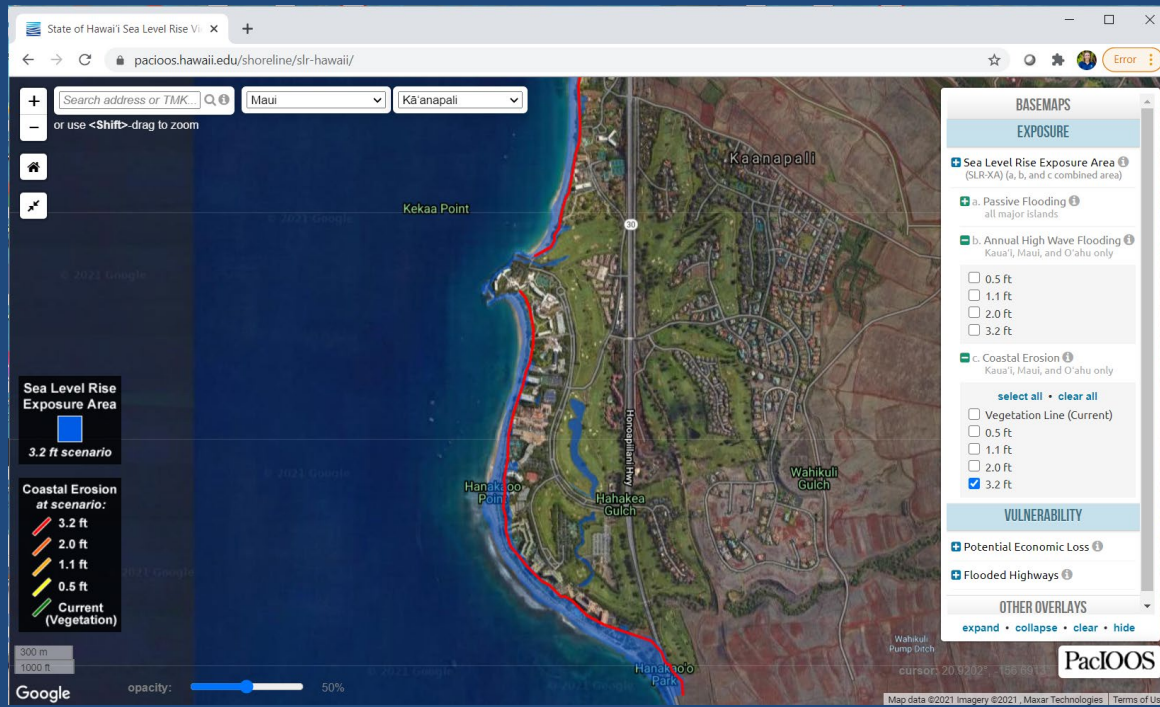
expand • collapse • clear • hide



# MAUI'S PROPOSED SETBACK CALCULATIONS

- Setback is either A or B:

A. Erosion Hazard Line + 40 ft



B. 200 ft from “shoreline”  
(mapped by Planning Department)

OR

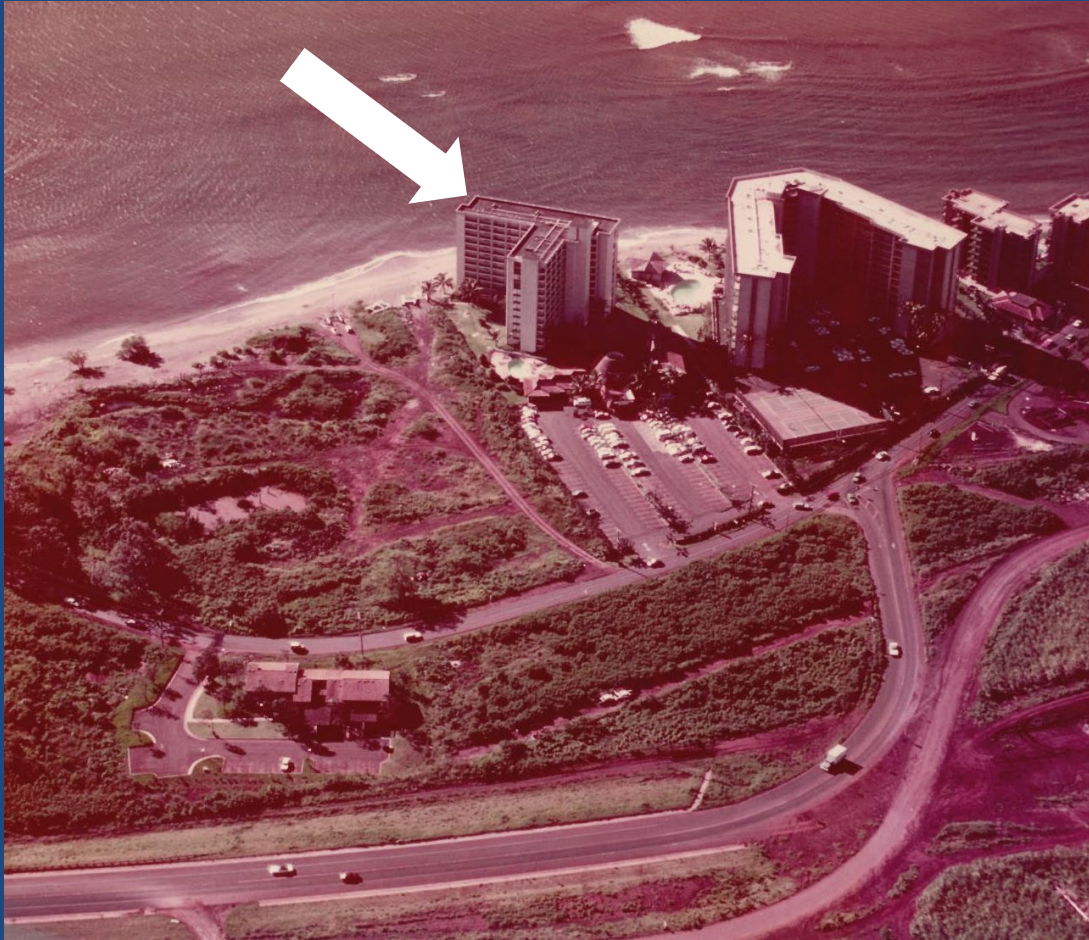
Lot depth setback, IF certified shoreline exists

If lot depth is:      Setback is:  
160 ft or less ..... 40 feet  
160 ft or more ..... 25% of avg. lot depth  
                                         (150 ft max.)

NOTE: Certified shoreline survey no longer automatically required.



# WHAT IF THIS BUILDING HAD BEEN SETBACK?



1979: Development sited too close to the shoreline



Today: Same development is imminently threatened



# WHAT IF THIS BUILDING HAD BEEN SETBACK?



Keonenui Bay (Napili) - October 1, 2020 (left) and January 23, 2021 (right)



# EXAMPLE - SETBACKS DURING REDEVELOPMENT



Renaissance Wailea, 2008 - buildings in setback area before \$90 million renovation



Andaz Resort Wailea, 2008 – demolition of buildings in setback area during redevelopment





Andaz Resort Wailea, 2014 – new buildings outside of setback after redevelopment