

HAWAIIAN HOME LANDS

HAWAIIAN HOMES COMMISSION
DEPARTMENT OF HAWAIIAN HOME LANDS

**South Shore Molokai
Shoreline Erosion
& Flooding Projects
November 14, 2018
Kaunakakai, Molokai**

Purpose of Tonight's Meeting

- 1. Talk with Kapa'akea & Kamiloloa-One Ali'i Homesteaders About...**
 - The Situation/Problem/Issues
 - What's Been Done
 - What's in Progress
- 2. Introduce a New Project**
 - Project Area/Scope
 - Outcomes: What We'll Get From the Project
 - Your Participation
- 3. Start Gathering Data--Mapping Exercise**
 - Flood areas, Cesspool Overflow, Shoreline Erosion

Starting Right/Starting Points

The Planning Office/Planners

- What is planning kuleana?
- Different Types of Plans
- Staff Assignments

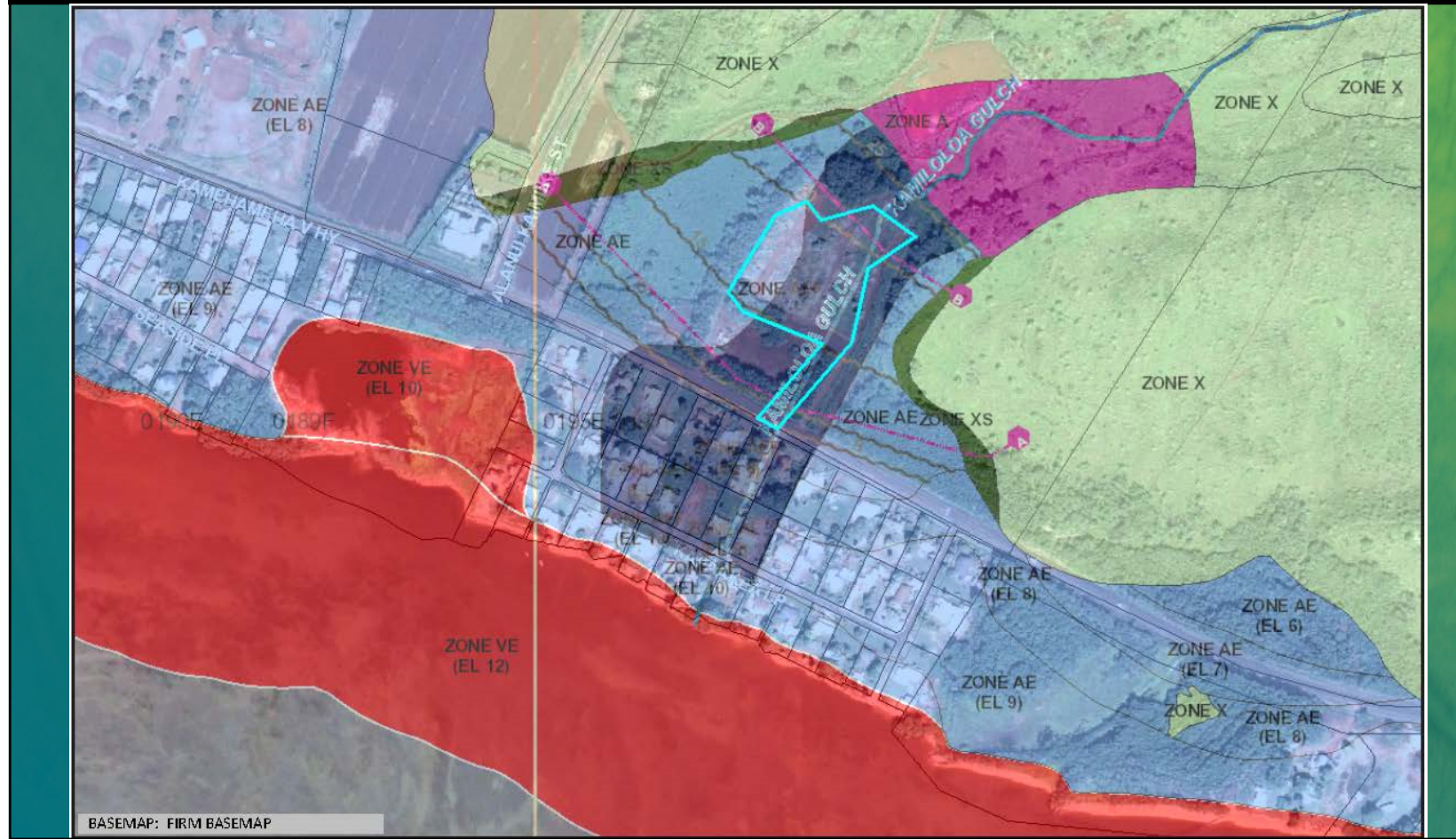
Water Coming From Mauka Down to Makai

- Stormwater
- Drainage
- Flooding

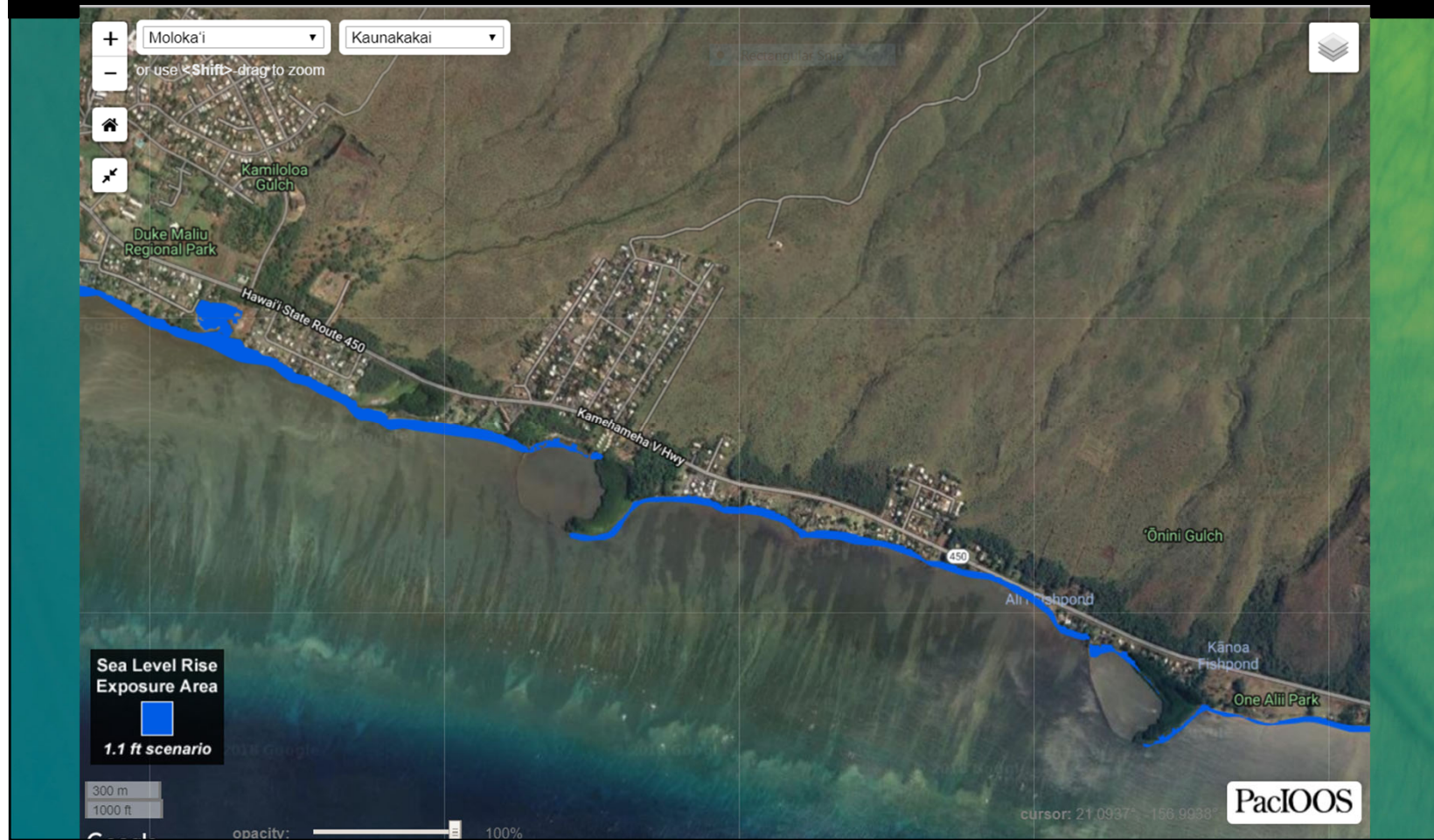
Water Coming Up From Makai

- Sea Level Rise
- King Tides/Spring Tides
- Storm Surge
- Saltwater intrusion/inundation

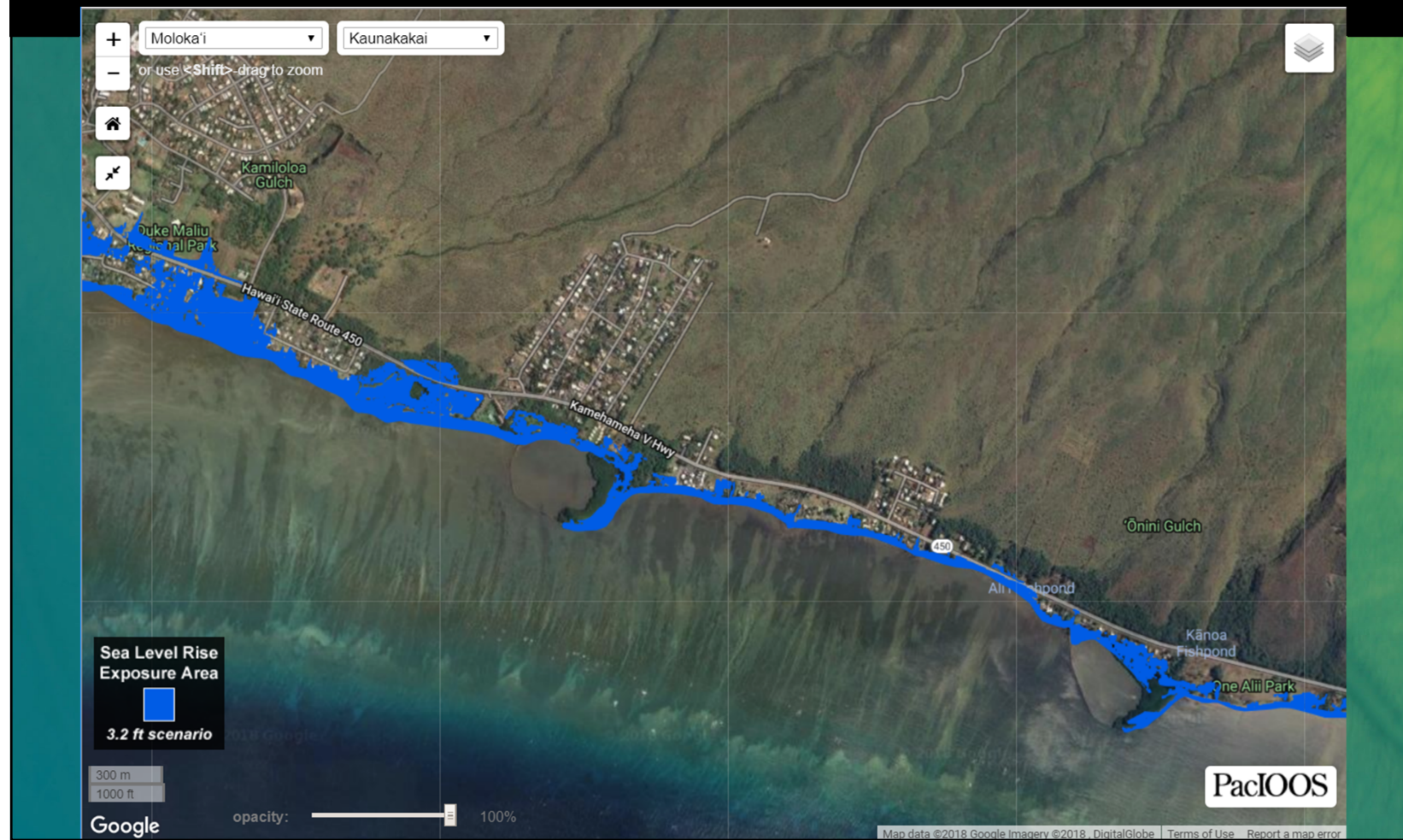
Flood Hazard Map



Sea Level Rise Exposure Area (SLR-XA) 1.1 Foot Scenario



Sea Level Rise Exposure Area (SLR-XA) 3.2 Foot Scenario

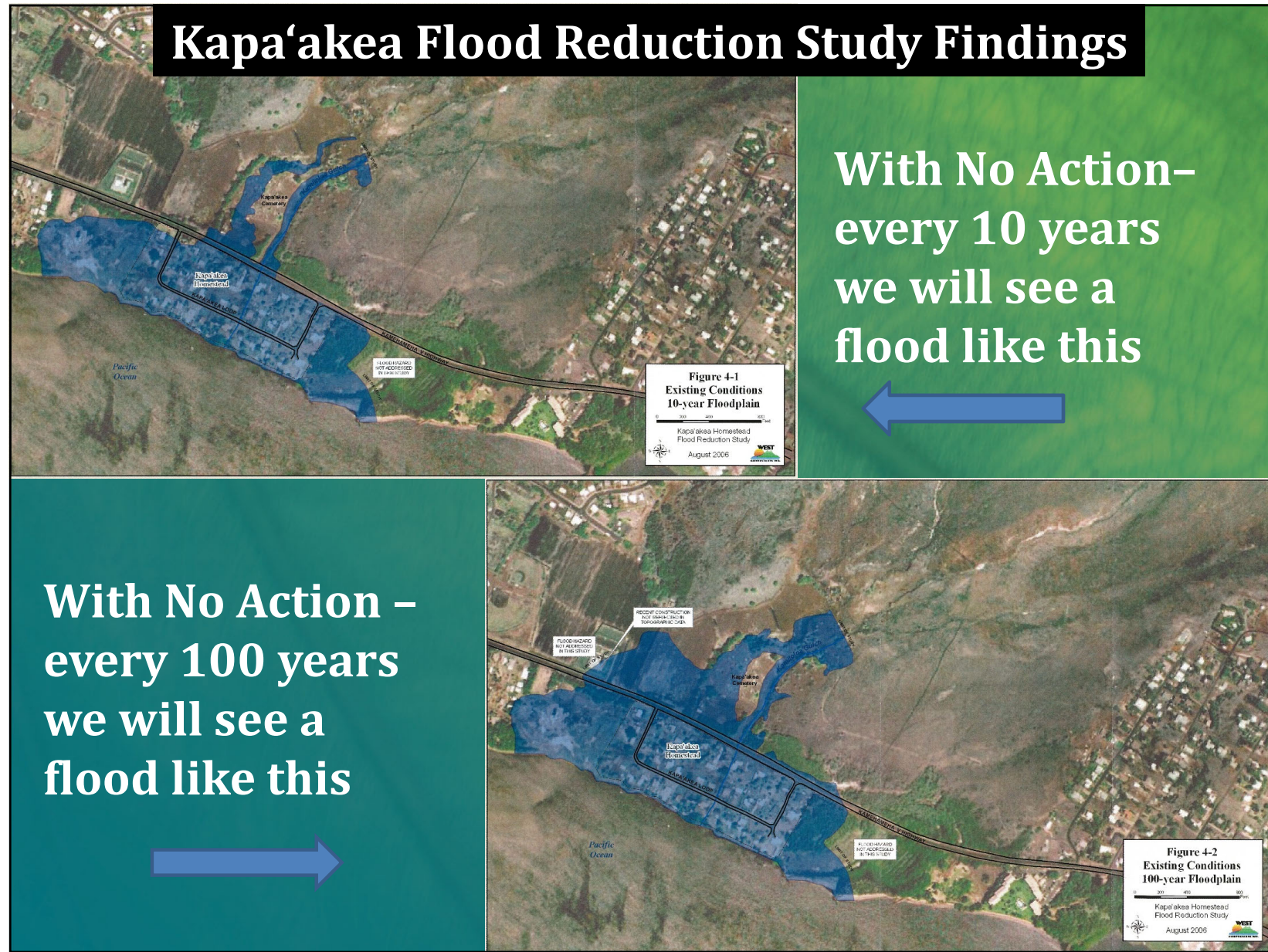


Chronology of Events

- Traditionally—healthy forest, 2 streams drained into the Kapa'akea wetland (swamp, marsh, saturated), multiple springs and fishponds
- 1900's – American Sugar Co. Map --Kapa'akea as a salt marsh
- 1950's – Wetland was filled to create Kapa'akea subdivision
- 1961 – Serious flooding in Kapa'akea (2-3 feet)
- 1976 – Army Corps of Engineers EIS for Flood Control
- 2001 – Heavy Kona rainstorm caused flooding with silt
- 2006 – DHHL Flood Reduction Study
- 2006-2011 – DHHL Kapa'akea Drainage Improvements project

Completed Project: Kapa'akea Drainage Improvements

- **2006: Kapa'akea Flood Reduction Study**
- **2007 – 2011: Kapa'akea Drainage Improvements Project design & construction**
 - **Lowered & graded edge of roadway;**
 - **Placed concrete fords in two locations on Kapa'akea Loop Road;**
 - **lined ditches w/geotextile fabric mesh for erosion control**



Ongoing Project:

Kapa'akea Flood Mitigation Improvements

- **2016: Final Environmental Assessment completed**
- **Oct –Dec. 2018: Preparing application for a FEMA Hazard Mitigation Grant to fund project**
- ****Need more information about past flooding events – dates, extent of damages, photos – for grant application**

Ongoing Project: Community Resilience & Disaster Preparedness Planning

- **May 2015: UH-DURP Practicum on “Coastal Resilience for DHHL Communities” developed a “Native Hawaiian Culturally Based Community Resilience Manual”**
- **Aug. 2015: DHHL conducted a one-day “Molokai Coastal Homestead Resilience Workshop” with homestead leaders**
- **NEXT STEP: August/Sept 2019 DHHL will conduct a 2-day workshop for Kalama'ula and a 2-day workshop for Kapa'akea-Kamiloloa-One Ali'i focused on traditional knowledge and preparing a community resilience plan**

What We Learned

- Major gaps in information
- Agency responses—band-aid, capital intensive, large concrete projects
- As forest became denuded, couldn't hold water, more flooding; cesspools overflow
- Sea level rise and "King Tides" are increasing
- Shoreline erosion cutting into lots
- Need and desire to bring best practices, best science, best information together so we can determine the best course of action.

You Are At the Center

- 63 Lessees
- Many are Kupuna
- Older homes—susceptible to damage
- What's going to happen to my house?
- How can I keep my family safe?
- How quickly will sea level rise?
- How long do I have to make a decision?
- What about my successors?
- How will I pay for any of this?
- Insurance, permits, etc.

New: South Molokai Shoreline Erosion Management Plan

Project Description: Prepare a Coastal Erosion Assessment and Management Plan

Scope: Literature research, GIS analysis, field and aerial surveys , community engagement, data assessment.

Geography: 2.5 miles of DHHL coastal from Kapa'akea to Makakupa'ia ahupua'a

New: South Molokai Shoreline Erosion Management Plan

Outcomes and Benefits

- **Better understand shoreline erosion**
- **Identify what could happen in the future**
- **Identify management strategies and best practices**
- **Educate homesteaders on the causes & responses to shoreline erosion**
- **Better information to make an informed decision using place-based data**

South Molokai Shoreline Erosion Management Plan

Current Status

- **Hired planning consultants with coastal erosion management expertise**
- **Aerial surveys completed**
- **Scheduling site visits, fieldwork & interviews**
- **Scheduling a series of community meetings starting in January 2019**
- **Iterative process—we will bring information & findings back to community multiple times**

Mapping Exercise

You, the homestead residents, are the experts!

- You've been given three sets of colored dots (red, green and blue)
- On any map, place
 - a **RED** dot where you have seen the ponding of water
 - A **GREEN** dot where cesspools have overflowed
 - A **BLUE** dot where you have seen shoreline erosion
- It's ok to have multiple dots on one spot – that way we know that it's a “hot spot”

Discussion Questions

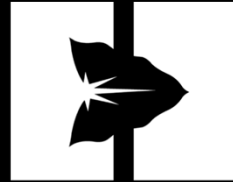
1. How can the Shoreline Erosion Management Plan help YOU?
2. How can Shoreline Erosion Management Plan help your HOMESTEAD COMMUNITY?
3. What is the BEST WAY for you TO BE INVOLVED in developing the Shoreline Erosion Management Plan?
4. What are the BEST DAYS/TIMES to meet?
5. OTHER Comments/Questions?

Closing Thoughts

- The situation didn't get this way overnight
- Fixing it will take some time
- It's only too late if we don't start now!
- You are the experts on the ground
- The plan & recommendations will only be as good as the data we put into them
- We have to analyze information from a system-wide view—shorelines are systems

Next Steps

- If you have information on erosion and flooding you'd like to share, please let us know on the sign-up sheet
- You can help by reporting incidents of flooding & erosion to the Molokai District Office & the Planning Office – please document (date & time) & take pictures.



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*Please send your questions, incident
reports, etc. to:*

*Nancy.m.mcpherson@Hawaii.gov
or drop off at the Molokai District Office*

Mahalo!