

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

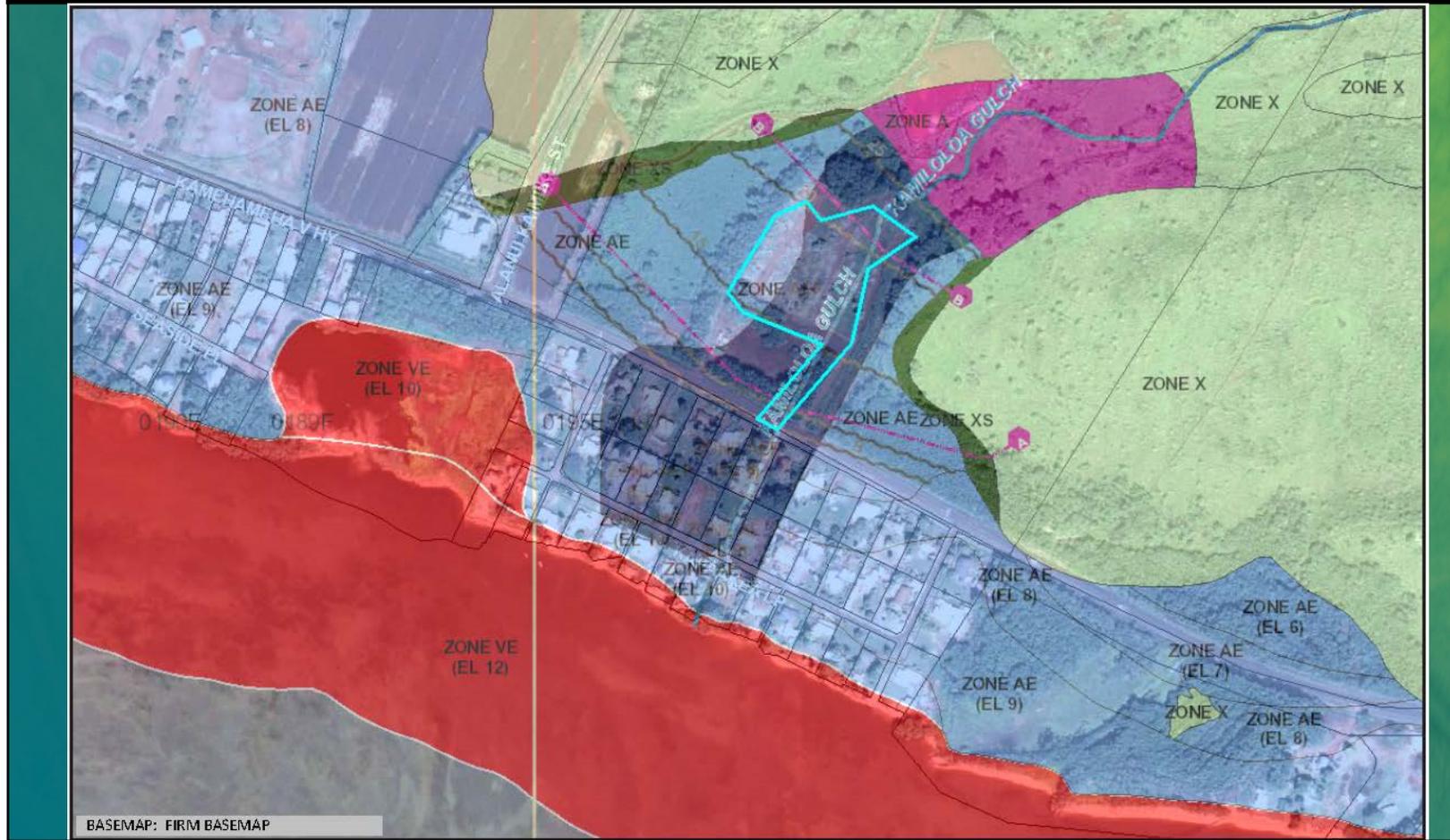
Water Coming From Mauka Down to Makai

- Stormwater
- Drainage
- Flooding

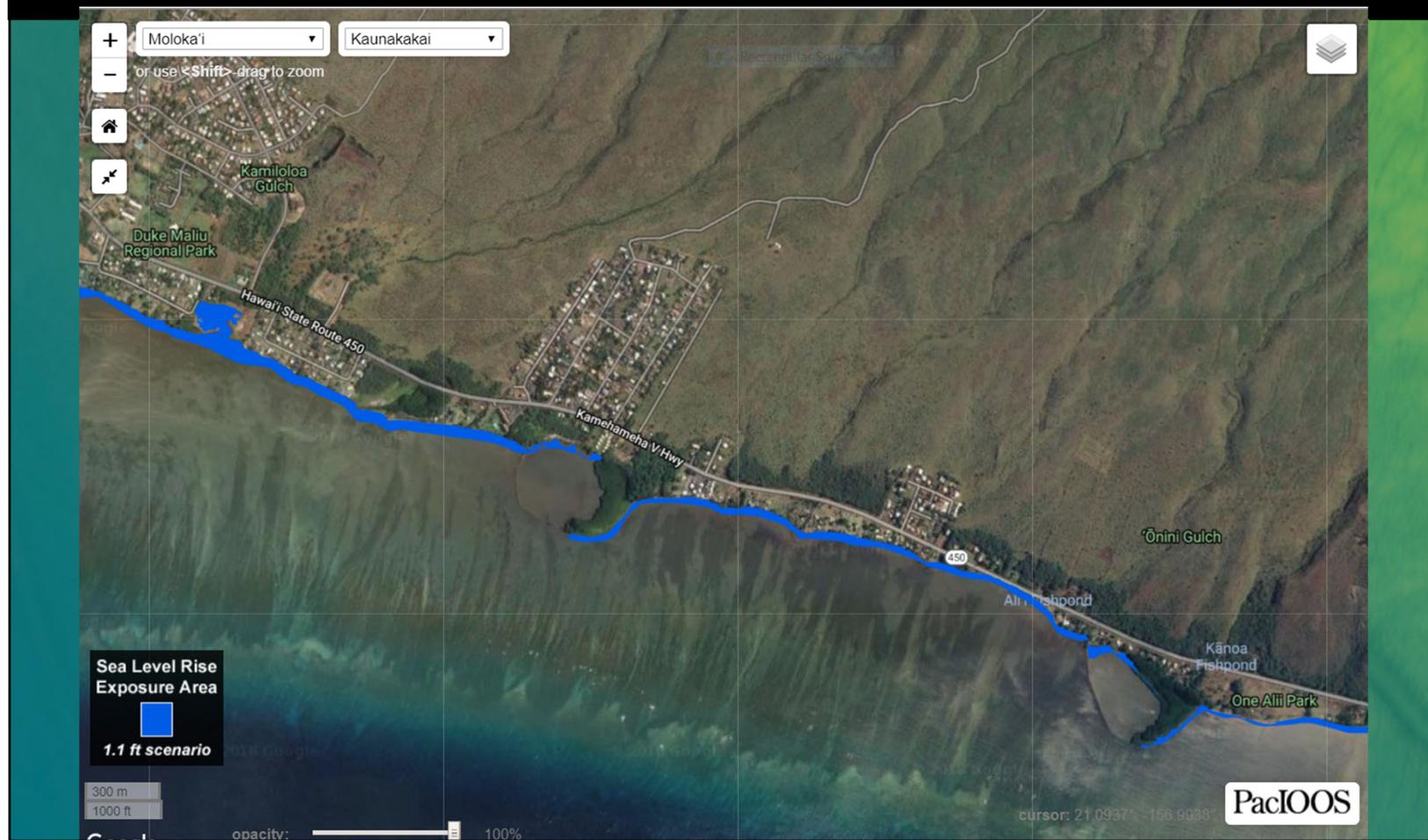
Water Coming Up From Makai

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

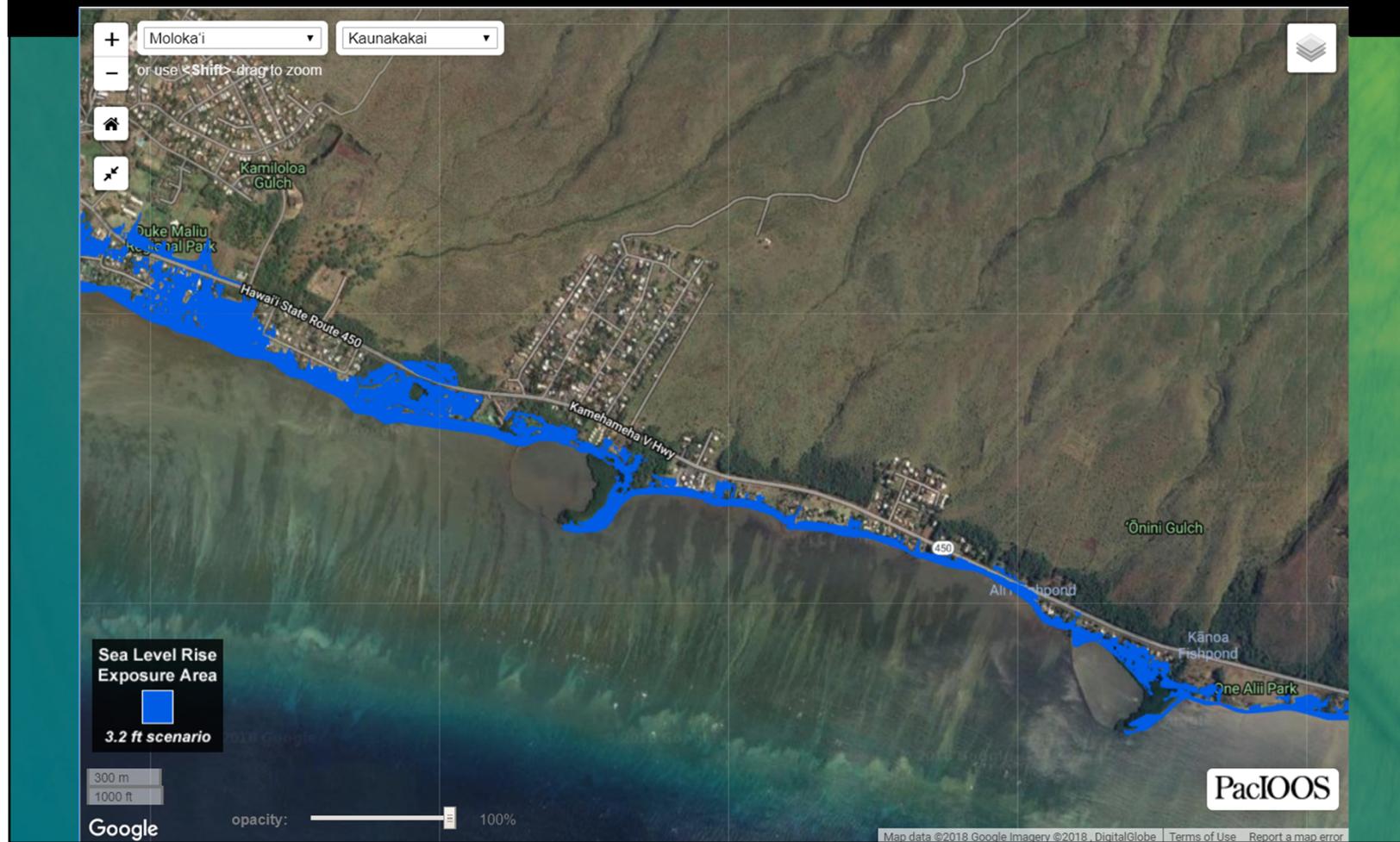
Flood Hazard Map



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



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

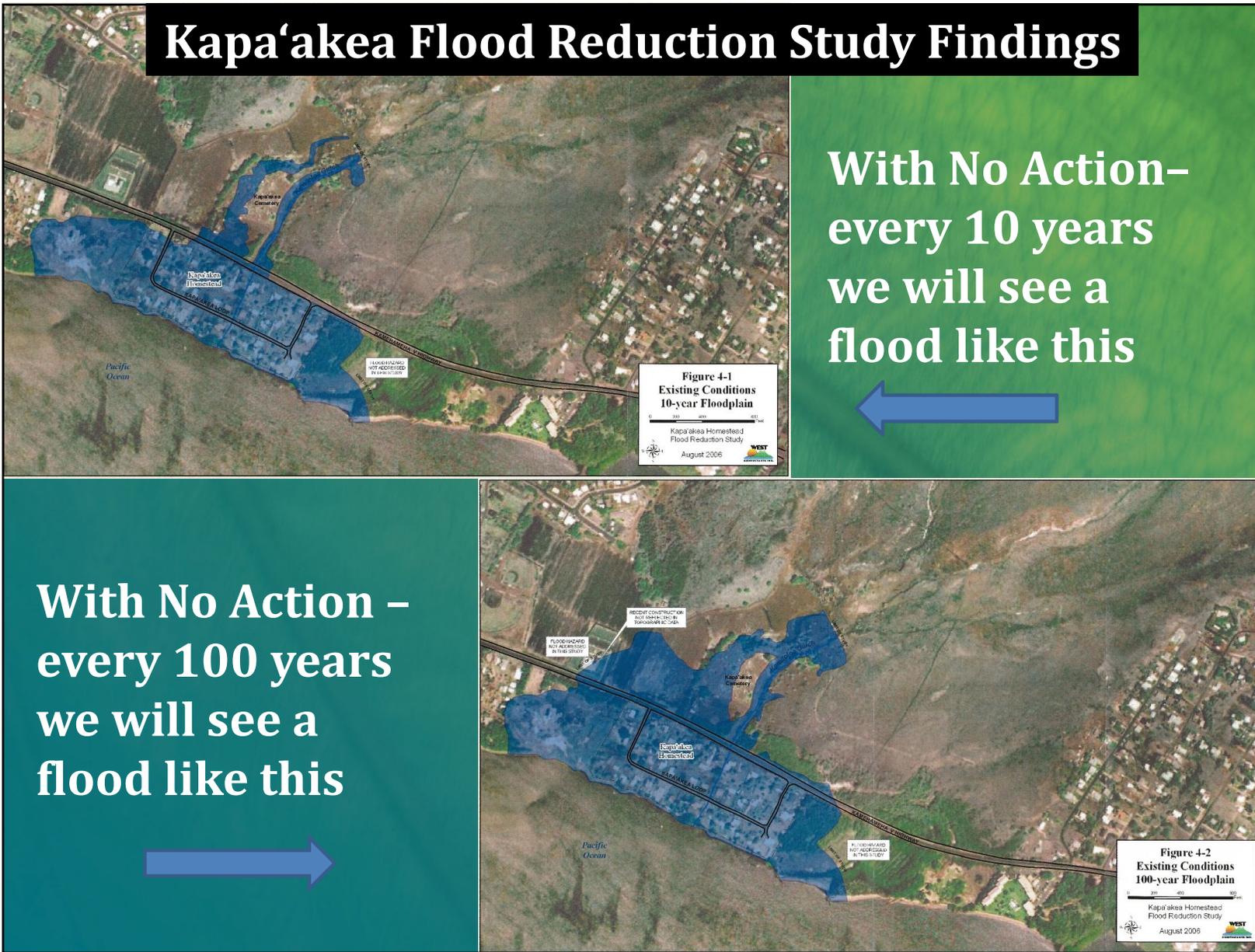


Chronology of Events

- **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!