

BALDWIN BEACH PARK
ADAPTATION PLAN

COMMUNITY MEETING #1

November 4, 2026 | 5:00-7:00 PM
Pāʻia Community Center

SSFM International

COUNTY OF MAUI
STATE OF HAWAII

Agenda

1. Welcome and Meeting Overview
2. Project Overview
3. Previous Plans and Studies
4. Vulnerabilities and Adaption Strategies
5. Public feedback stations



01. Welcome & Overview

- Ollie Lau, SSFM
- Robbie Highfield, COM



Meeting Objectives

- Introduce the Baldwin Beach Park Regional Adaptation Plan
- Establish the project context, history and background
- Provide overview of park vulnerabilities, adaptation pathways, and potential adaptation strategies
- Start envisioning the desired future for the park through public feedback stations

Project Team

County of Maui
- Robbie Highfield, AICP
- Erika Hughston

SSFM International
- Ollie Lau, AICP
- Alice McLean, AICP
- Brooke McKenzie

TETRA TECH
- Kitty Courtney, Ph.D.
- Dave Yamashita

INTEGRAL CONSULTING
- Taylor Caster, E.I.T
- Melissa May, AICP
- David Revell, Ph.D.

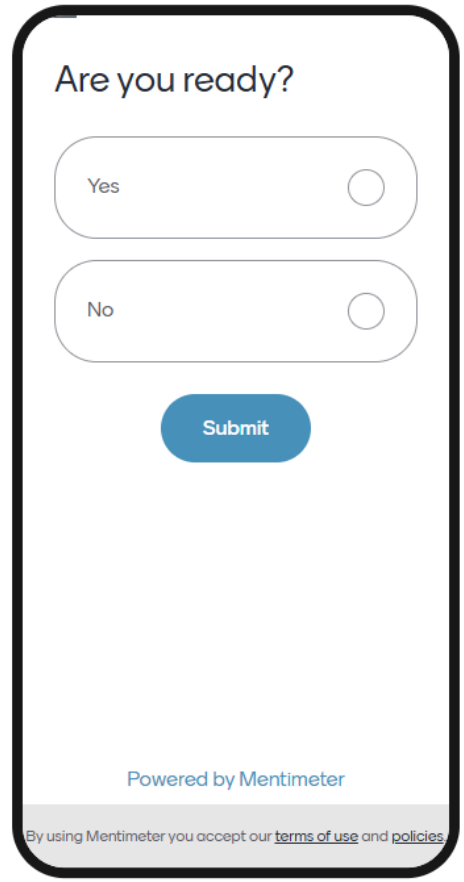
Practice Polling

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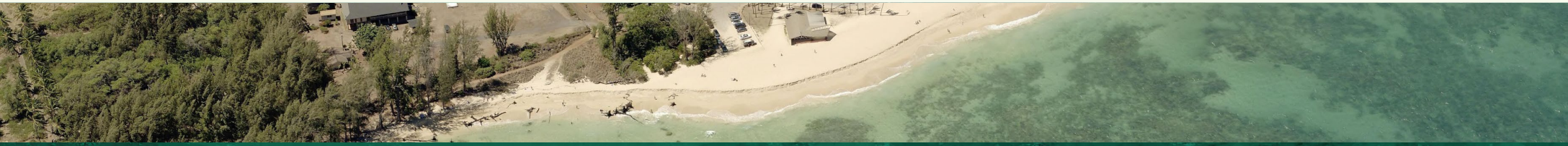


02. Project Overview

- **Ollie Lau, SSFM**



Why the Baldwin Beach Park Adaptation Plan?



Coastal Change

- Increasingly vulnerable to coastal hazards
- Recent storm damage

New Opportunities

- Maui County acquired more than 50 acres of adjacent land between 2014 and 2022

Building on Previous Plans

- Previous master planning and technical studies provide a strong foundation for long-term planning

The Adaptation Plan brings these pieces together to prepare Baldwin Beach Park for future coastal change while improving how the park is managed and enjoyed today.

What is an Adaptation Plan?

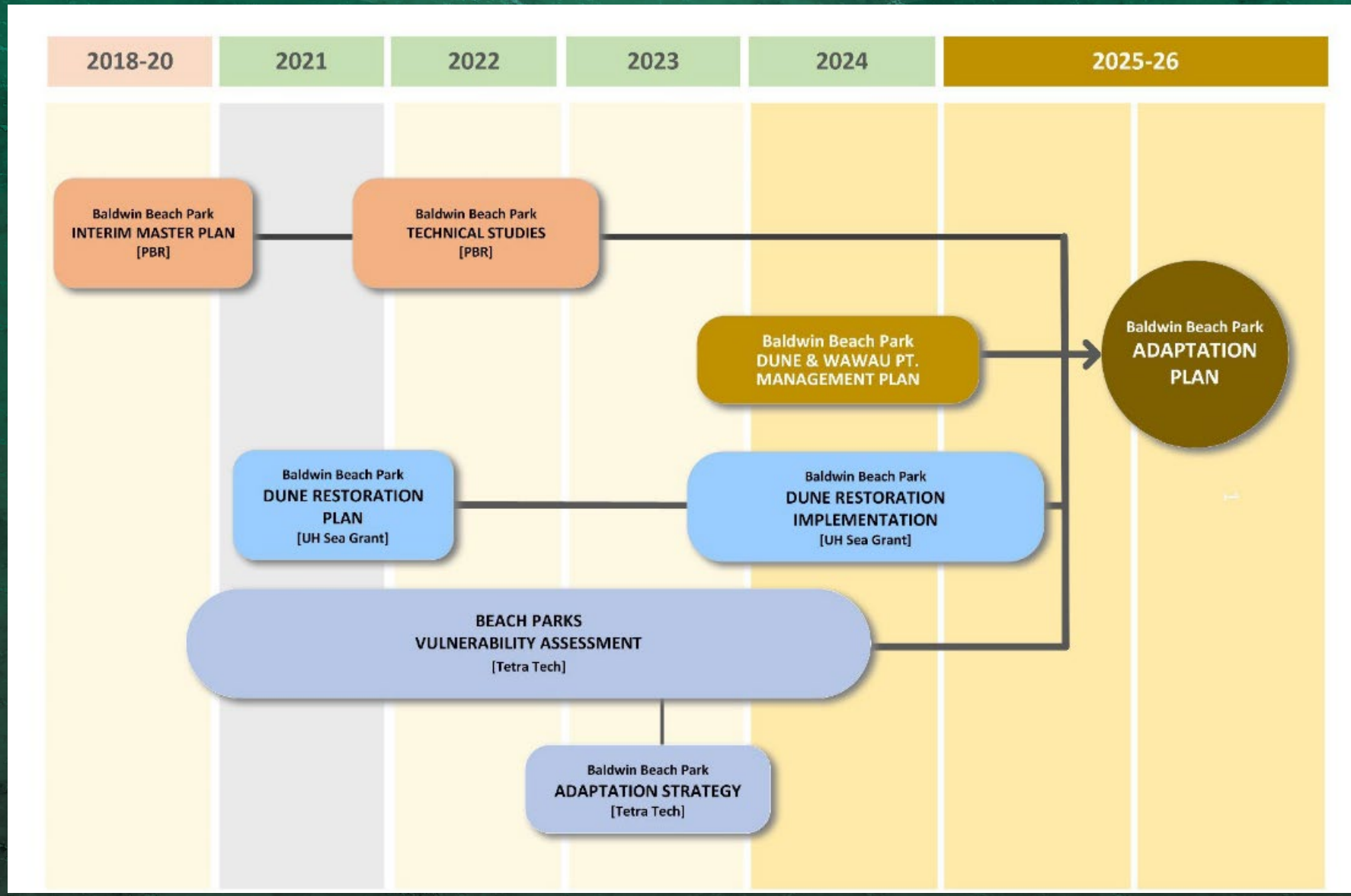
ADAPTATION PLAN

- Identifies vulnerabilities to climate change effects
- Sets actions to prepare for and respond to impacts

MASTER PLAN

- Comprehensive, long-term vision for physical, economic, and social development of an area

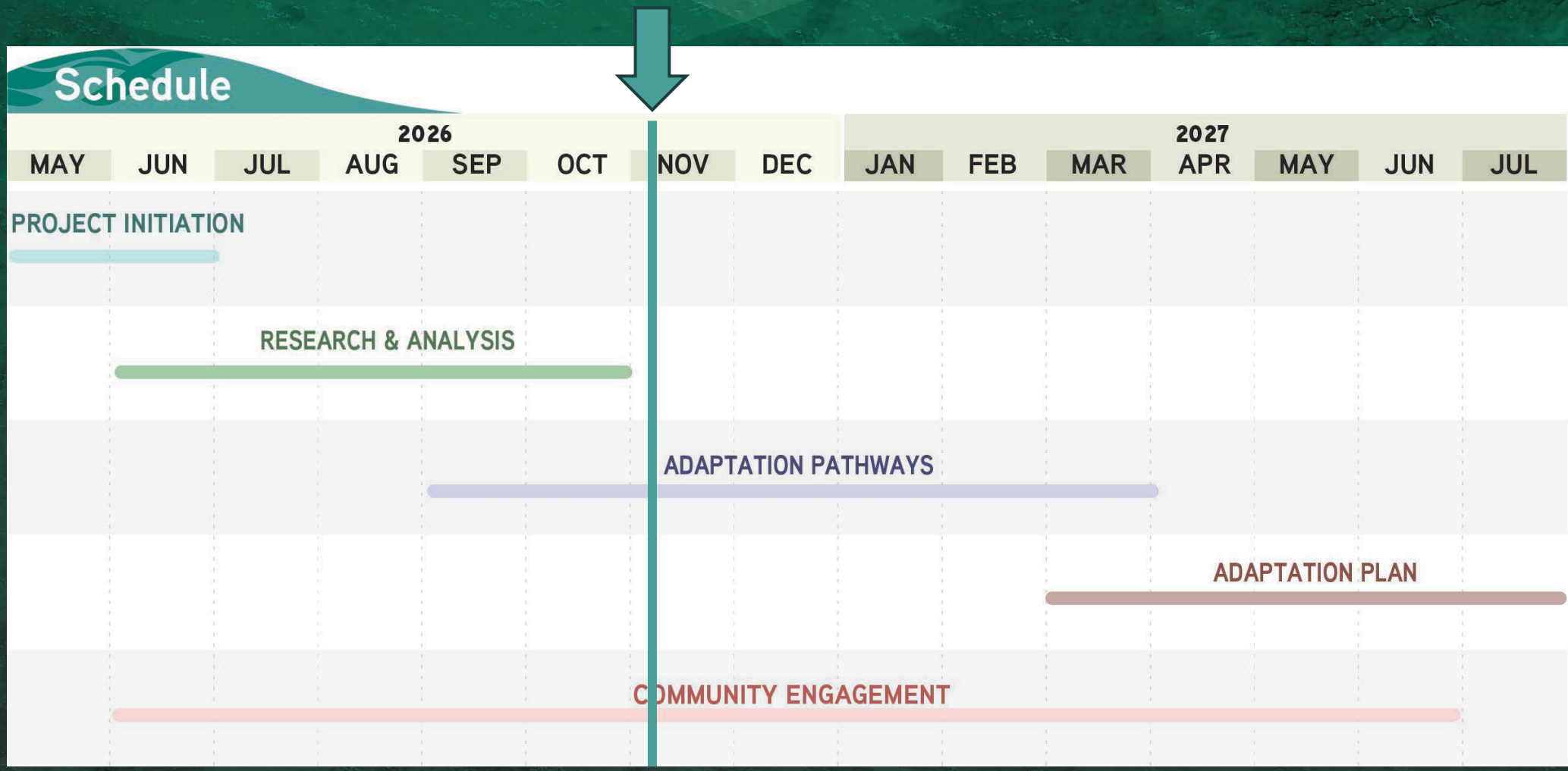
Why the Baldwin Beach Park Adaptation Plan?



Project Location



Project Schedule



PAC Role

Represent

- Reflect a broad range of community interests and perspectives

Guide

- Help guide the planning process with early input

Meetings

- Four (4) meetings anticipated over the course of the project

Advisory

- Advisory position; no formal decision-making authority

Transparent Information

- Meetings are not open to public, but materials may be published online

Ambassadors

- Attend community events and spread the word to others

Project Advisory Committee (PAC) Members

Name		Name
Andrea Kealoha		Hugh Starr
Brandon Chu		Naomi Crozier
Bruce U'u		Naomi Yamaguchi
Cindy Hanscam		Pete Jalbert
Francine Aarona		Peter Niess
Heidi Sherman		Pūlama Collier

Guiding Principles

KEEP IT SIMPLE

Focus on small, incremental actions that can be implemented in the short-term as a place to start

BUILD ON PAST WORK

Rather than reinventing the wheel, build upon past studies and plans

FIND A BALANCE

Find ways to make the park more welcoming to locals, while not attracting high numbers of visitors

PRIORITIZE NATURE-BASED SOLUTIONS

Support Kapuka‘ulua project and explore dune and habitat restoration along the entire coast as appropriate

LET SAND MOVE

Make space for sand to move from the wind and waves

NAVIGATE CHANGE

Plan park improvements while taking into consideration changing conditions

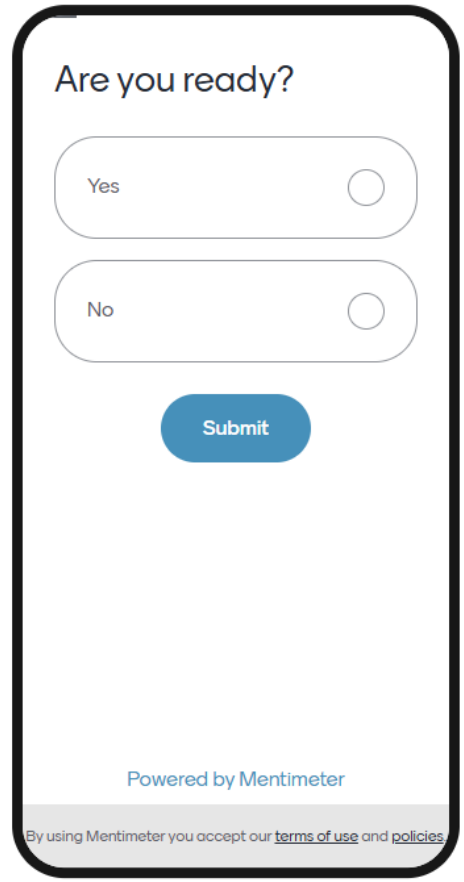
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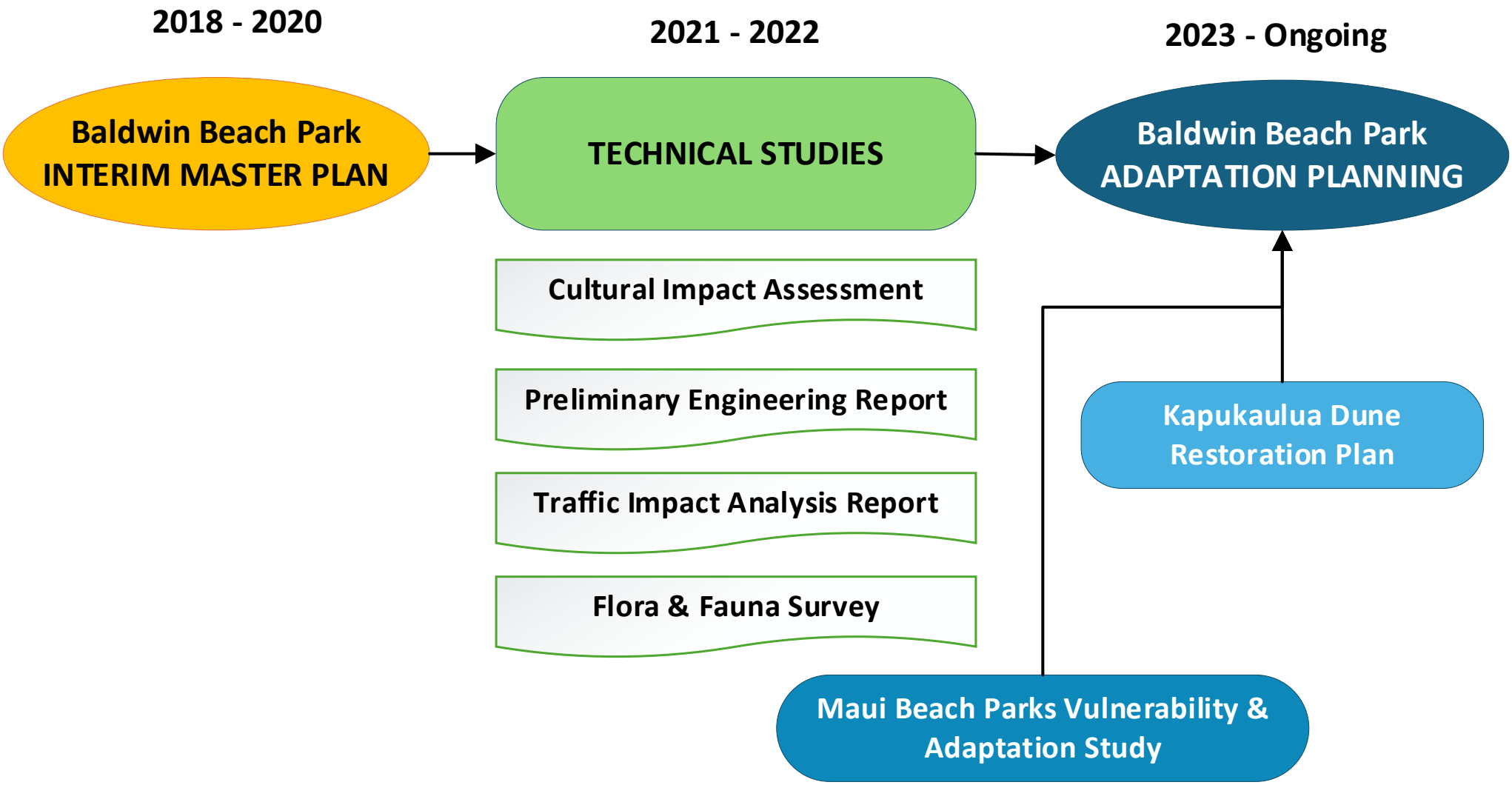


03. Previous Plans And Studies

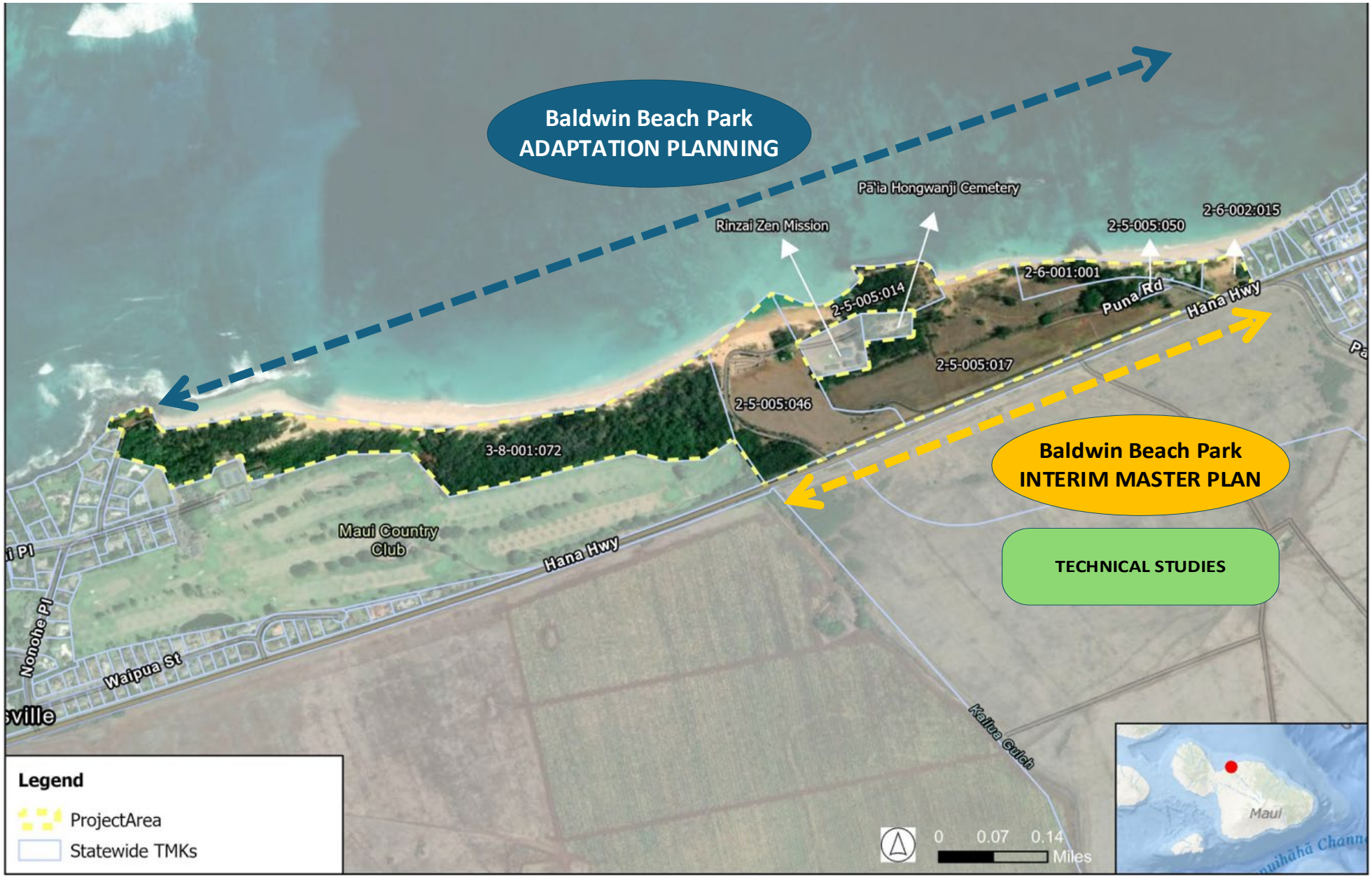
- **Dave Yamashita, Tetra Tech**



Foundation for Adaptation Planning



Geographic Scope of Studies



Kapukaulua Dune Restoration Project

KAPUKAULUA DUNE RESTORATION PROJECT

737 Bishop St., Suite 2340
Honolulu, HI 96813-3201
www.tetratech.com
TETRA TECH



GENERAL LOCATION

INDEX OF SHEETS

SHEET No.	SHEET TITLE
G-101	COVER SHEET
G-102	GENERAL NOTES
C-101	PROJECT OVERVIEW LOCATION OF PROPOSED ACTIVITIES
C-501	GENERAL DETAILS CIVIL
L-501	GENERAL DETAILS LANDSCAPE
C1-101	ZONE 1 - SITE PLAN
C1-201	ZONE 1 - PROFILE
C1-301	ZONE 1 - SECTIONS
CH1-101	ZONE 1 - SAND FENCING
L1-101	ZONE 1 - LANDSCAPE PLAN (CONT.)
L1-102	ZONE 1 - LANDSCAPE PLAN
C2-101	ZONE 2 EAST - SITE PLAN
C2-102	ZONE 2 - SITE PLAN ACCESS ROUTE AND STAGING AREA
C2-301	ZONE 2 EAST - SECTIONS
CH2-101	ZONE 2 EAST - SAND FENCING (CONT.)
CH2-102	ZONE 2 WEST - SAND FENCING
L2-101	ZONE 2 EAST - LANDSCAPE PLAN
L2-102	ZONE 2 WEST - LANDSCAPE PLAN
C4-101	ZONE 4 - SITE PLAN
C4-102	ZONE 4 - SITE PLAN DEBRIS REMOVAL
C4-103	ZONE 4 - SITE PLAN ACCESS ROUTE AND STAGING AREA
C4-201	ZONE 4 - PROFILE WEST SAND DUNE (CONT.)
C4-202	ZONE 4 - PROFILE MID AND EAST SAND DUNES
C4-301	ZONE 4 - SECTIONS
L4-101	ZONE 4 - LANDSCAPE PLAN (CONT.)
L4-102	ZONE 4 - LANDSCAPE PLAN
L5-101	ZONE 5 - LANDSCAPE PLAN (CONT.)
L5-102	ZONE 5 - LANDSCAPE PLAN (CONT.)
L5-103	ZONE 5 - LANDSCAPE PLAN (CONT.)
L5-104	ZONE 5 - LANDSCAPE PLAN (CONT.)
C6-101	ZONE 6 - SITE PLAN OPTION 1
C6-102	ZONE 6 - SITE PLAN OPTION 2 (CONT.)
C6-103	ZONE 6 - SITE PLAN OPTION 2 (CONT.)
C6-104	ZONE 6 - SITE PLAN OPTION 2 (CONT.)
C6-105	ZONE 6 - SITE PLAN OPTION 2 (CONT.)
C6-106	ZONE 6 - SITE PLAN OPTION 2
C6-201	ZONE 6 - PROFILE SAND DUNE
C6-202	ZONE 6 - PROFILE SAND RELOCATION OPTION 1
C6-301	ZONE 6 - SECTIONS SAND RELOCATION OPTION 1
C6-302	ZONE 6 - SECTIONS SAND DUNE AND BERM OPTION 1



FOR REGULATORY REVIEW
- NOT FOR CONSTRUCTION -

PROJECT LOCATION:
BALDWIN BEACH PARK, PAIA, HI
TMKS - (2) 3-8-001:072, (2) 2-5-005:046, (2) 2-5-005:017, (2) 2-5-005:014, (2) 2-6-001:001

CLIENT INFORMATION:
UNIVERSITY OF HAWAI'I
SEA GRANT COLLEGE PROGRAM

Tt PROJECT No.:
103S7276

NFWF CONTRACT I.D.:
0318.19.065883

PROJECT DESCRIPTION / NOTES:
DUNE RESTORATION

LAND OWNER/MANAGER:
COUNTY OF MAUI DEPARTMENT OF PARKS AND RECREATION
TMK's (2) 2-5-005:046, (2) 2-5-005:017, (2) 2-5-005:014, (2) 2-6-001:001;
ALEXANDER AND BALDWIN
TMK (2) 3-8-001:072

ISSUED:
01 - ISSUED FOR REVIEW

VICINITY MAP:



G-101



Key Points

Dune Management Practices

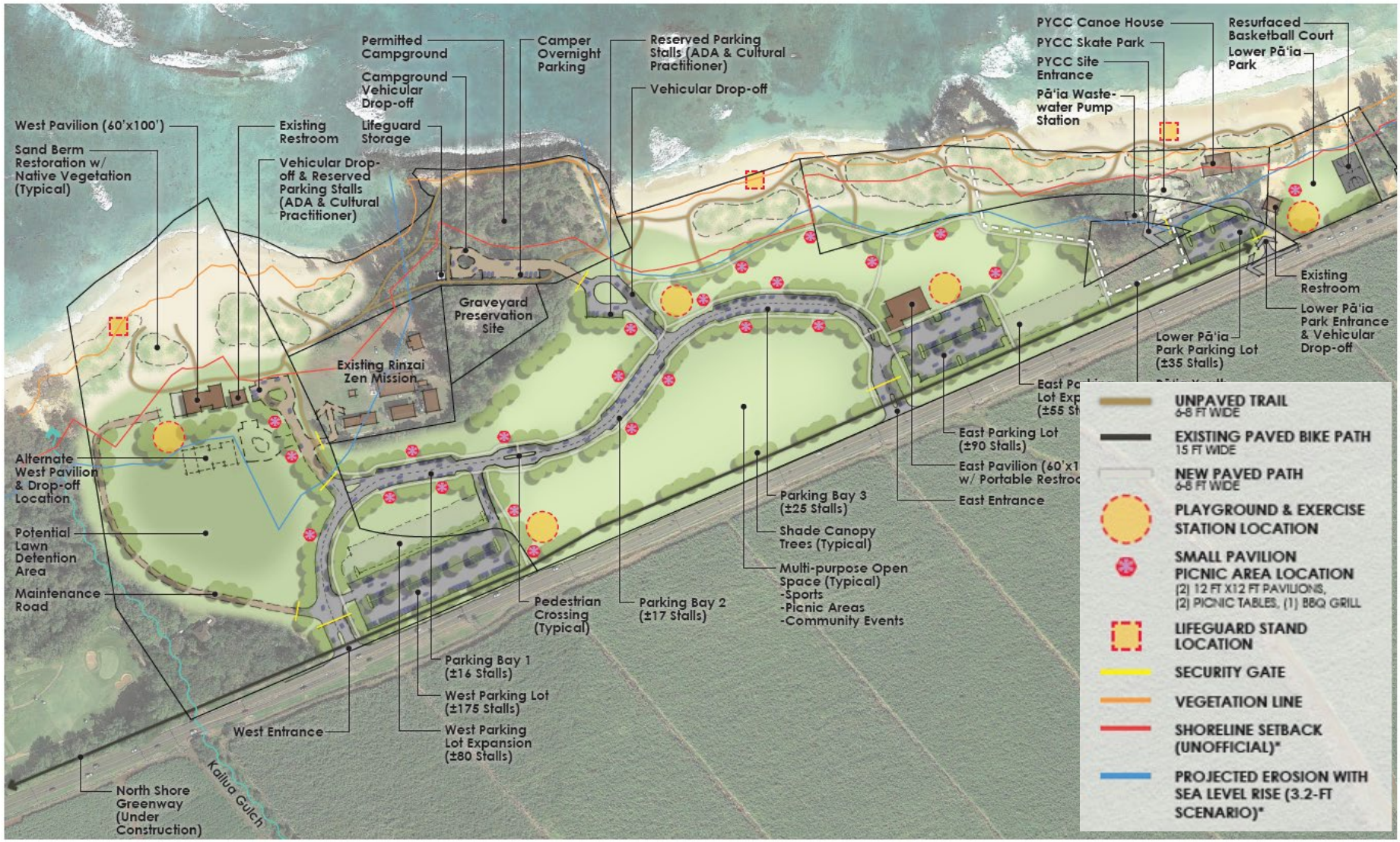
- ✓ Define beach access paths and restoration areas.
- ✓ Plant native vegetation to encourage sand build up and stabilize dunes.
- ✓ Install fencing to accelerate accumulation of wind-blown sand.
- ✓ Rebuild dunes with sand from the same littoral/beach cell, if needed.
- ✓ Construct elevated boardwalks or dune walkovers, for special circumstances.

Dunes must be allowed to migrate landward as sea level rises.

Interim Master Plan

FINAL CONCEPTUAL MASTER PLAN

BALDWIN BEACH PARK | PĀʻIA, MAUI | AUGUST 22, 2019

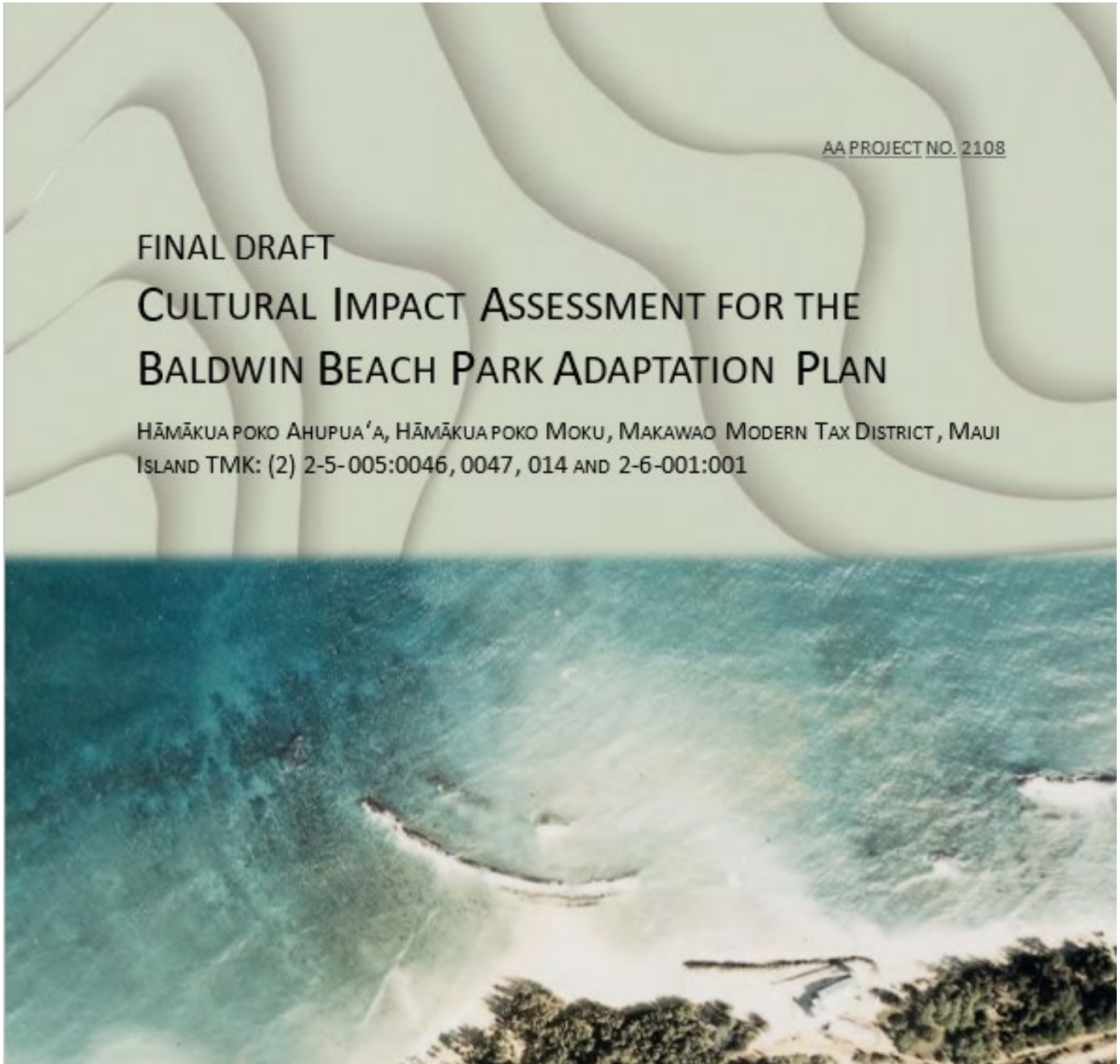




Key Points

- ✓ Relocate facilities mauka.
- ✓ Develop retention basins for stormwater runoff.
- ✓ Provide new parking areas.
- ✓ Construct third park entrance for vehicular access.
- ✓ Provide paved and unpaved pedestrian access.

Cultural Impact Assessment

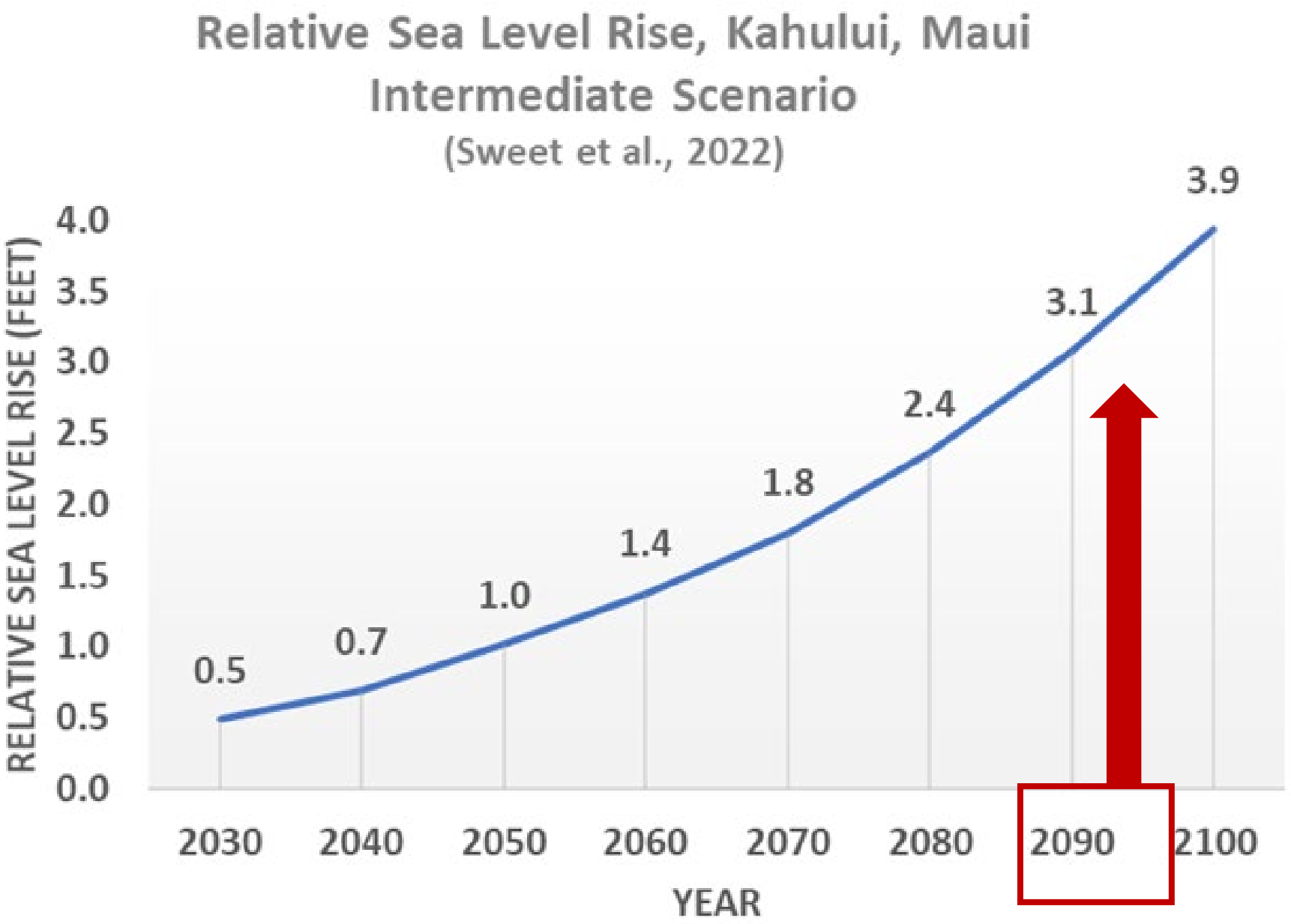




Key Points

- ✓ Maintain access for traditional uses.
- ✓ Prepare for inadvertent discoveries of iwi kūpuna.
- ✓ Restore/incorporate native plant species.
- ✓ Establish a long-term Nā Kilo ʻĀina program.
- ✓ Recognize the traditional place name Kapukaʻulua.

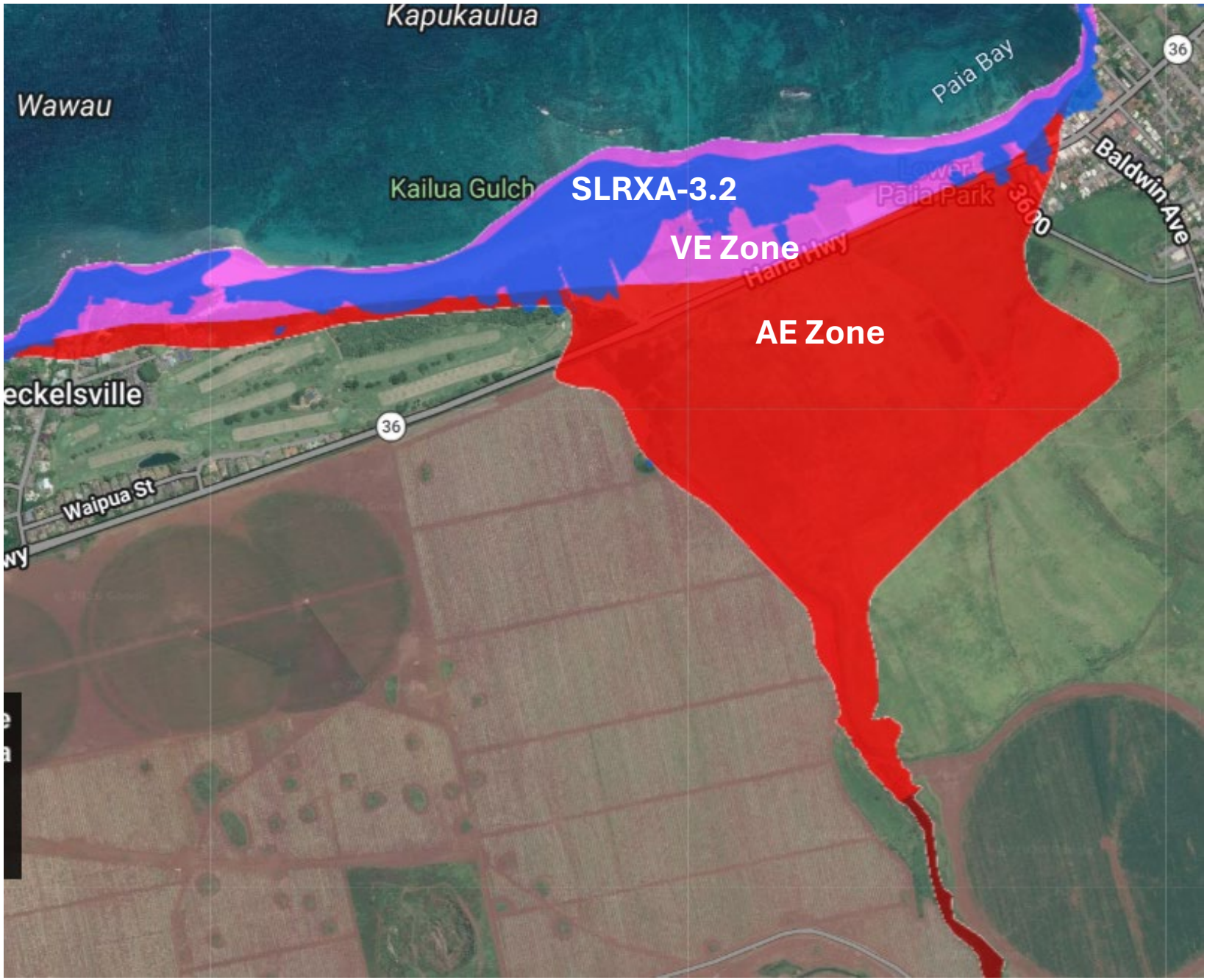
Sea level will continue to rise into the next century



Without adaptation, more than 50% of park area will be lost from flooding and coastal erosion



Park is located in the FEMA coastal (VE) and riverine (AE) flood zones



High surf and severe rainfall events are impacting the park NOW!

2024



High surf, severe seasonal erosion, and rising sea levels undermined the 80+ year-old pavilion in late August 2024. Pavilion removed in September 2024

2019



Baldwin Park closed due to heavy rain and flooding. 2019



Key Points

Adaptation Strategies

- ✓ **Dune restoration** is the foundational adaptation strategy to support park resilience now and into the future.
- ✓ Dunes must have **room to migrate landward** as sea level rises.
- ✓ **Park facilities** should be located outside of the sea level rise exposure area.
- ✓ **Stormwater management** should include on-site and off-site interventions.

03. Adaptation Strategies

- **Taylor Caster, Integral**



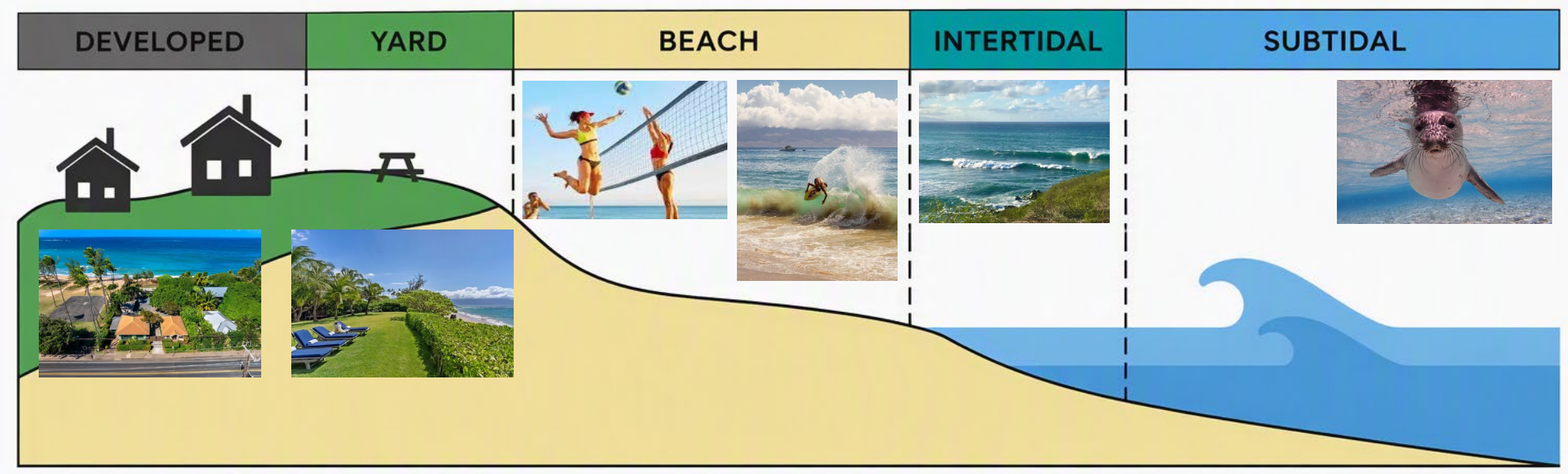
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What needs to be considered?

Upland Development, and Infrastructure

Vs.

Coastal Resources, and Recreation



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Range of adaptation choices



Do Nothing

Accommodate



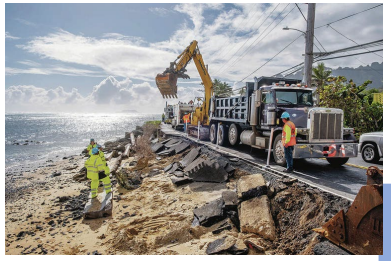
Setback



Elevate

Hybrid

Grey



Protect

Managed Retreat



Before

Green





After

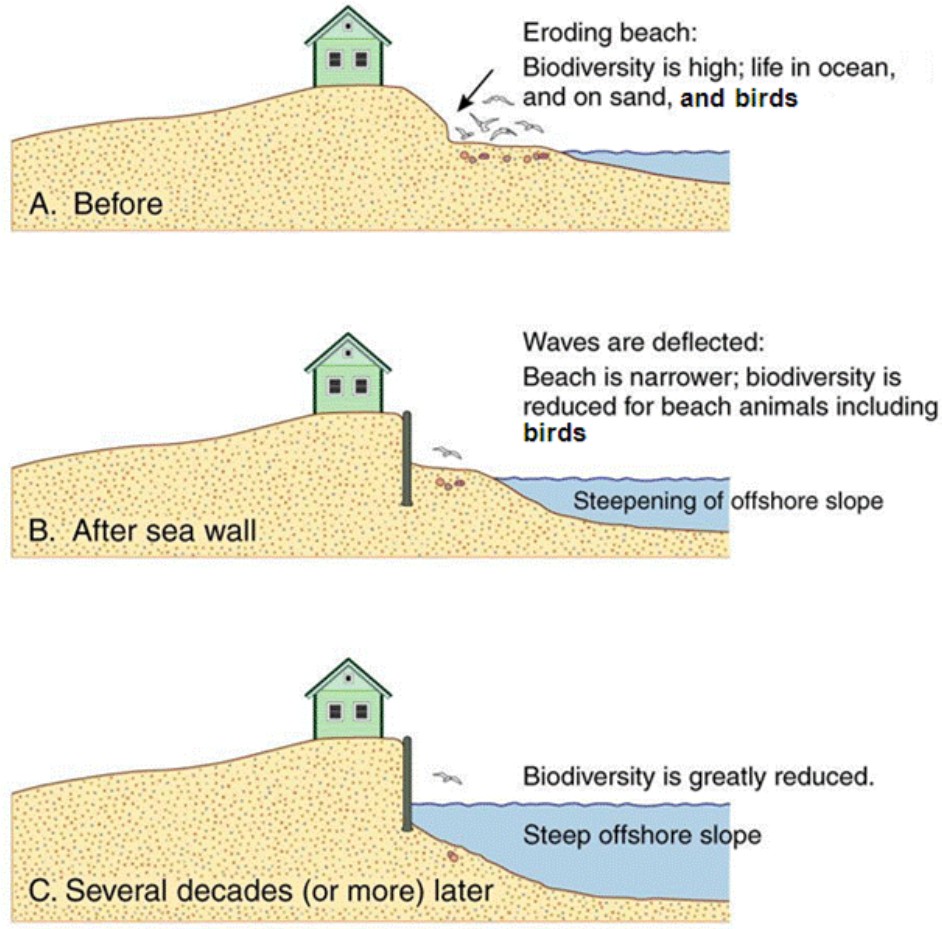
Adaptation projects vs. policy approaches

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Secondary consequences

What are the drawbacks and benefits of each strategy?

- Initial construction costs
- Escalating maintenance costs
- Safe and accessible beach
- Impacts to ecology and habitat
- Impacts to recreation (surfing, swimming, fishing)
- Changing views and aesthetics
- Impacts to cultural sites and practices
- Loss of key park and beach uses



Source: Pilkey, O.H. and Dixon, K. L. 1996
(modified) *The Corps and the Shore*. Island Press, Washington, D.C.

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Possible strategies for Baldwin: Restore dunes/Living shorelines

Nature-based

Native plants, sand fencing, and managed paths build up and hold the dunes that buffer the park.

A hybrid version adds a core of cobbles or driftwood.

How long it lasts	Certainty	Relative cost
Short–medium	**Medium**	**$**





Privileged & Confidential

Possible strategies for Baldwin: Sand management

Nature-based

Pushing sand up higher on the beach, and moving sand along the beach between seasons to lessen the severity of seasonal erosion.

How long it lasts	Certainty	Relative cost
Ongoing	**Medium**	**$–$$ (repeats)**



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Possible strategies for Baldwin: Move facilities inland or elevate

Managed retreat

Moving parking, restrooms, and other facilities inland in phases, with portable facilities near the shore in the interim.

How long it lasts	Certainty	Relative cost
Long	**High**	**$$**



Hawai‘i Public Radio

Privileged & Confidential

Possible strategies for Baldwin: Maintain the lime kiln revetment

Existing structure

Repairing the historic rock revetment within its existing footprint, and perform necessary studies to determine its long-term future.

How long it lasts	Certainty	Relative cost
Medium–long	**Medium–high**	**$$**



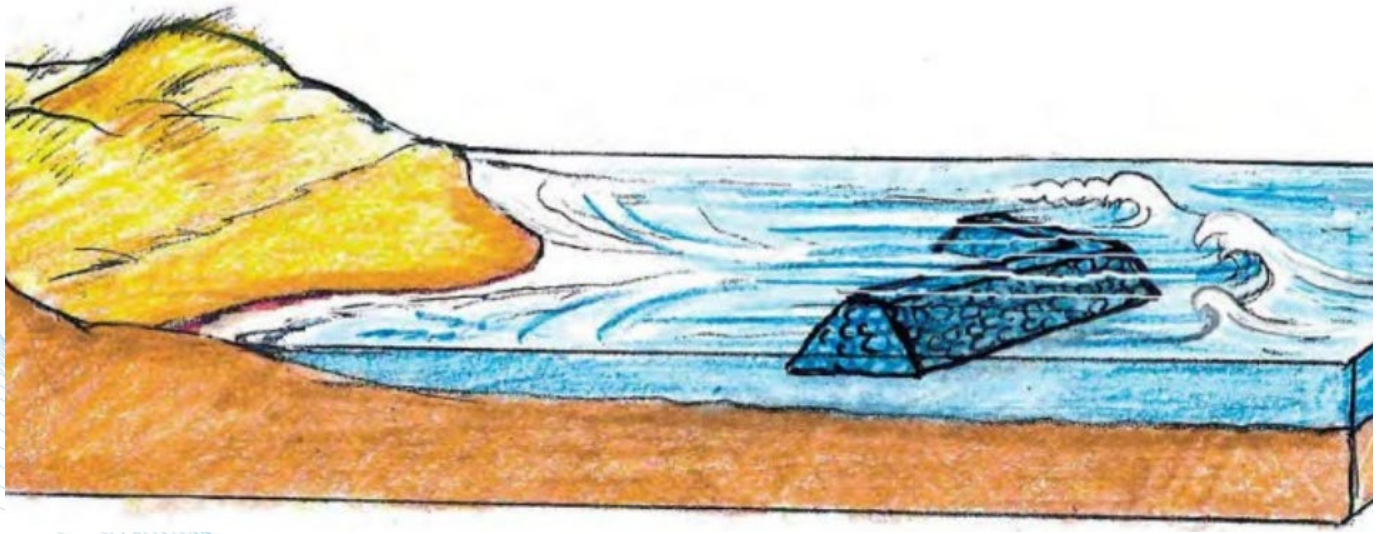
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Possible strategies for Baldwin: Nearshore artificial reef

Structural (study)

Building up the existing offshore beachrock so large waves break before they reach the beach.

How long it lasts	Certainty	Relative cost
Medium–long	**Low**	**$$$**





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Possible strategies for Baldwin: Manage stormwater

Nature-based / drainage

Managing the Kailua Gulch outlet, redirect floodwater to holding basins, coordinate with HDOT on wider drainage fixes.

How long it lasts	Certainty	Relative cost
Varies	**Medium**	**$–$$$**



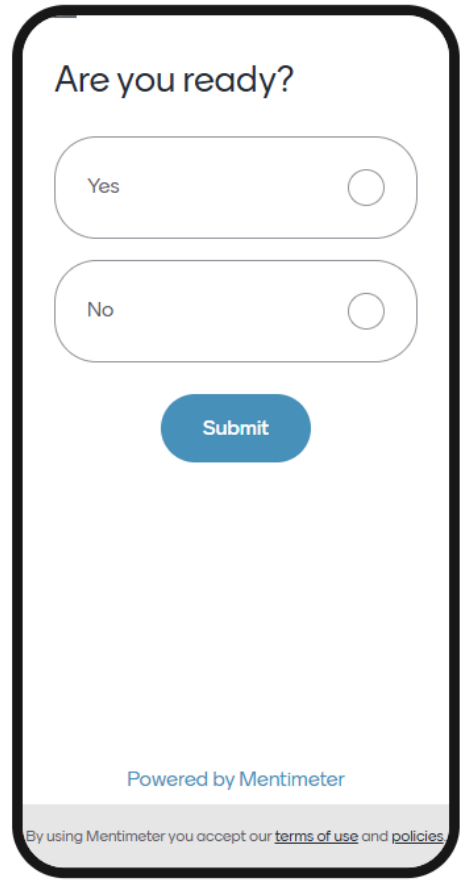
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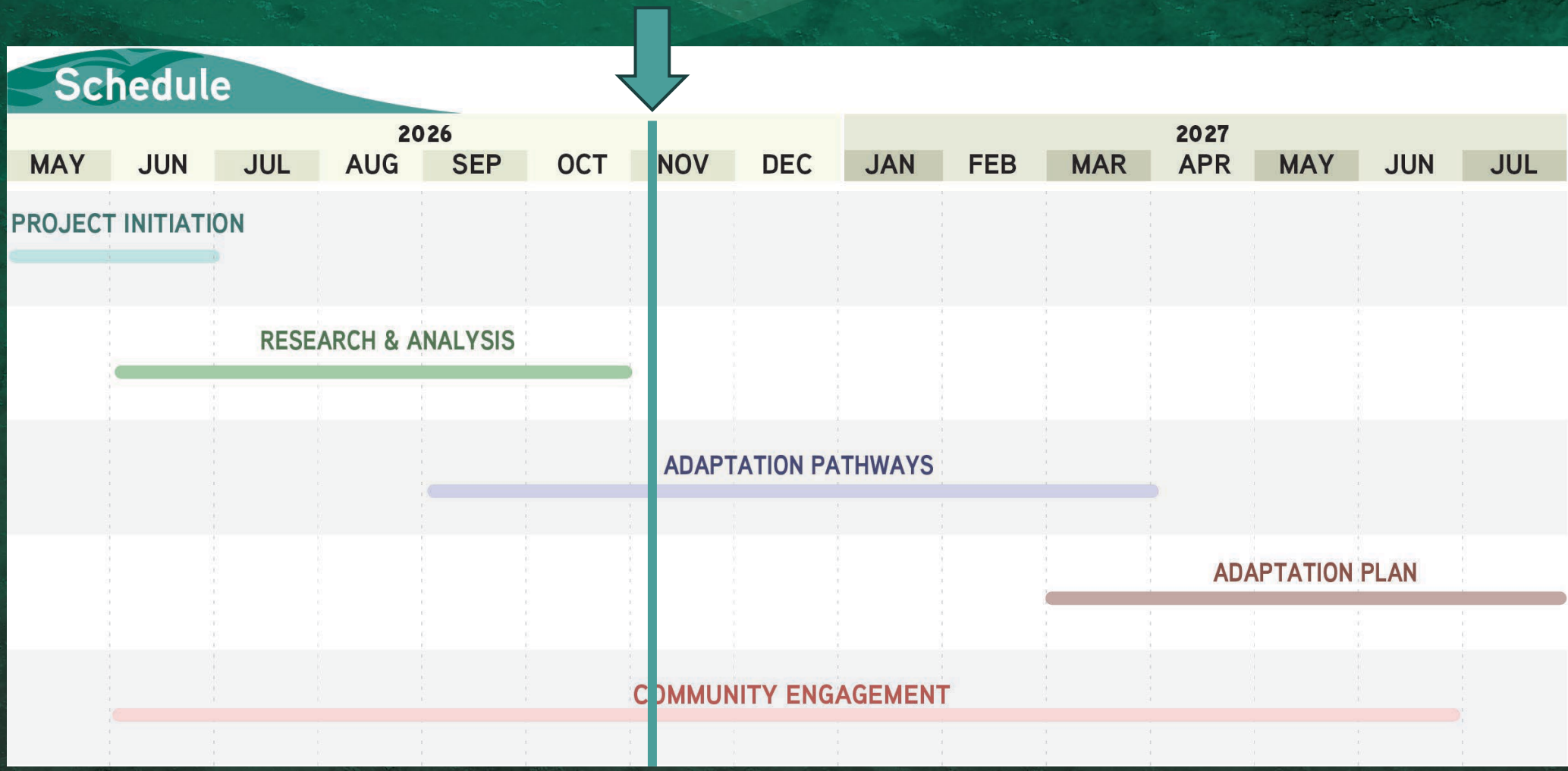


04. Closing and Next Steps

- **Ollie Lau, SSFM**



Project Schedule



Upcoming Activities

- **Community Meeting 2: March 3, 2027 5:00pm**



MAHALO AND STAY IN TOUCH!!

Send your comments and questions to:

robert.w.highfield@co.maui.hi.us |
olau@ssfm.com

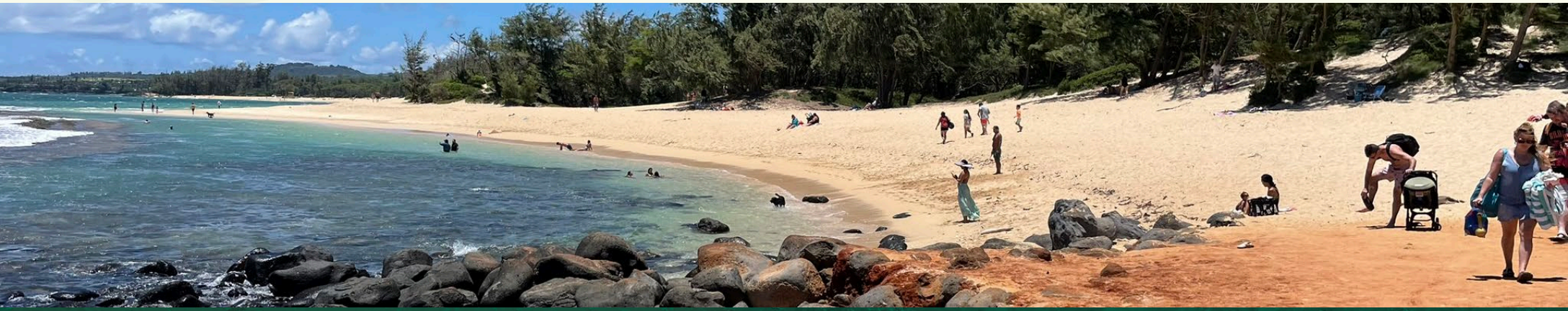
Visit the project's website:



05.
Public Workshop



Workshop



1. **Park Map**
   - What should the park look like and where should future facilities be located?
2. **Adaptation Strategies**
   - What strategies resonate and should be used to protect the park from coastal impacts
3. **Love letter to Baldwin**
   - Write us your love letter to the park – what do you love? why do you love it? What makes this place so special to you?
4. **Feedback**
   - Give us any additional feedback