



# PRINCETON SHORELINE FEASIBILITY STUDY

## Public Scoping Meeting

Continuing Authorities Program  
Section 111

25 February 2026

6:00-8:00 PM



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# Welcome and Team Introductions



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## Meeting Purpose

To introduce the Princeton Shoreline Study and provide an opportunity to meaningfully engage the public in the study process.

## Feasibility Study Purpose

To investigate solutions to address shoreline impacts at Princeton caused by the federal navigation project.



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# Meeting Participation

## 1. Please Sign In

IN PERSON: Sign-In sheet

VIRTUAL: Chat box

## 2. Questions

IN PERSON: Please wait until the end of presentation

VIRTUAL: Type in questions any time

## 3. Comment Submissions

IN PERSON: 3x5 card or ask during comment period

VIRTUAL: Type in your comment at any time and note that it is a comment you'd like our team to track. You can also request to speak during the "comment" period

## 4. We'd appreciate your feedback.

Please be candid, speak your mind, share your experiences, perspectives, ask questions, and provide comments



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# AGENDA

- Welcome & Introductions
- Meeting & Army Corps' Overview
- Study Overview
- Planning Process Overview
- Potential Solutions
- Tribal Consultation
- Public Involvement
- Questions, Comment & Discussion



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The USACE is a federal agency that constructs infrastructure for:



Navigation



Coastal Storm Risk



Flood Safety



Ecosystem Restoration



& More!



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# Study Overview



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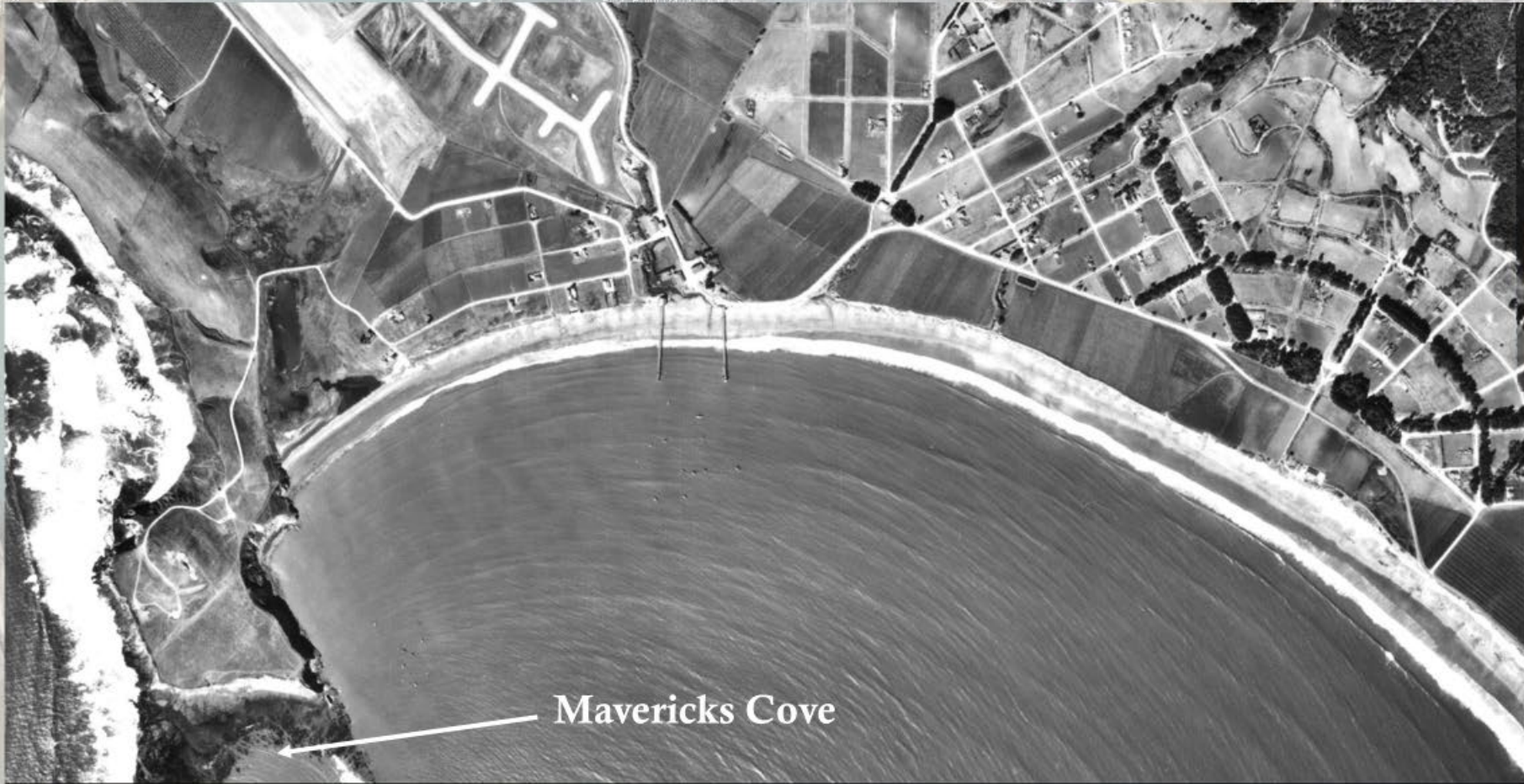




Area of Concern



# NORTHERN HALF MOON BAY 1944



Mavericks Cove



# Erosion Rate

## Shoreline Retreat (1969-2000)

- Near Romeo 45 ft (17 inches/year)
- Near Vassar 38 ft (15 inches/year)
- Vassar to Columbia 31 ft (12 inches/year)
- Near Columbia 19 ft (7 inches/year)

(Erosion rates after construction of the Federal breakwaters)

# Army Corps Projects & Studies at Pillar Point Harbor

Project/Study	Army Corps / Harbor District Roles	Focus	Status	Timeframe
<u>CAP 111 Princeton Shoreline Management Study (Princeton Shoreline Project)</u>	<ul style="list-style-type: none"> <li>Corps: Federal Lead</li> <li>SMCHD: Non-Fed Lead</li> </ul>	Investigate solutions to address shoreline impacts caused by the federal breakwaters at <u>Princeton Shoreline</u>	Active / Today's focus	2025-2027
<b>Surfer's Beach Sand Replenishment Pilot/Harbor Dredge Project</b>	<ul style="list-style-type: none"> <li>Corps: NA</li> <li>SMCHD: Lead Agency</li> </ul>	Improve navigational safety within the breakwaters by repurposing sand south of breakwaters	Active	2015-2025
<b>Pillar Point Flood &amp; Storm Damage Risk Reduction Project</b>	<ul style="list-style-type: none"> <li>Corps: Federal Lead</li> <li>SMCHD: Non-Fed Lead</li> </ul>	Investigate solutions related to negative impacts of the breakwaters. No specified cost limit	Authorized by Congress WRDA 2024; No funding identified	NA
<b>CAP 111 Northern HMB Shoreline Improvement Project</b>	<ul style="list-style-type: none"> <li>Corps: Federal Lead</li> <li>SMCHD: Non-Fed Lead</li> </ul>	Investigate solutions to address shoreline impacts caused by the federal breakwaters	Terminated; Lack of Federal interest based on cost benefit analysis	2009-2015
<b>Pillar Point Harbor Breakwaters</b>	<ul style="list-style-type: none"> <li>Corps: Lead Federal Agency</li> <li>SMCHD: Non-Fed Lead</li> </ul>	Navigation safety	Improved navigation safety; Cause of negative shoreline impacts	Early 1960's-present



# Planning Process Overview



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# What is the Continuing Authority Program (CAP)?

Small scale, water resource improvement projects with a per project limit of \$15M

CAP 204, CAP 206, CAP 1135 Environmental Restoration Projects



CAP 103 Erosion, wave attack, hurricane storm risk reduction projects



CAP 205 Small flood risk projects

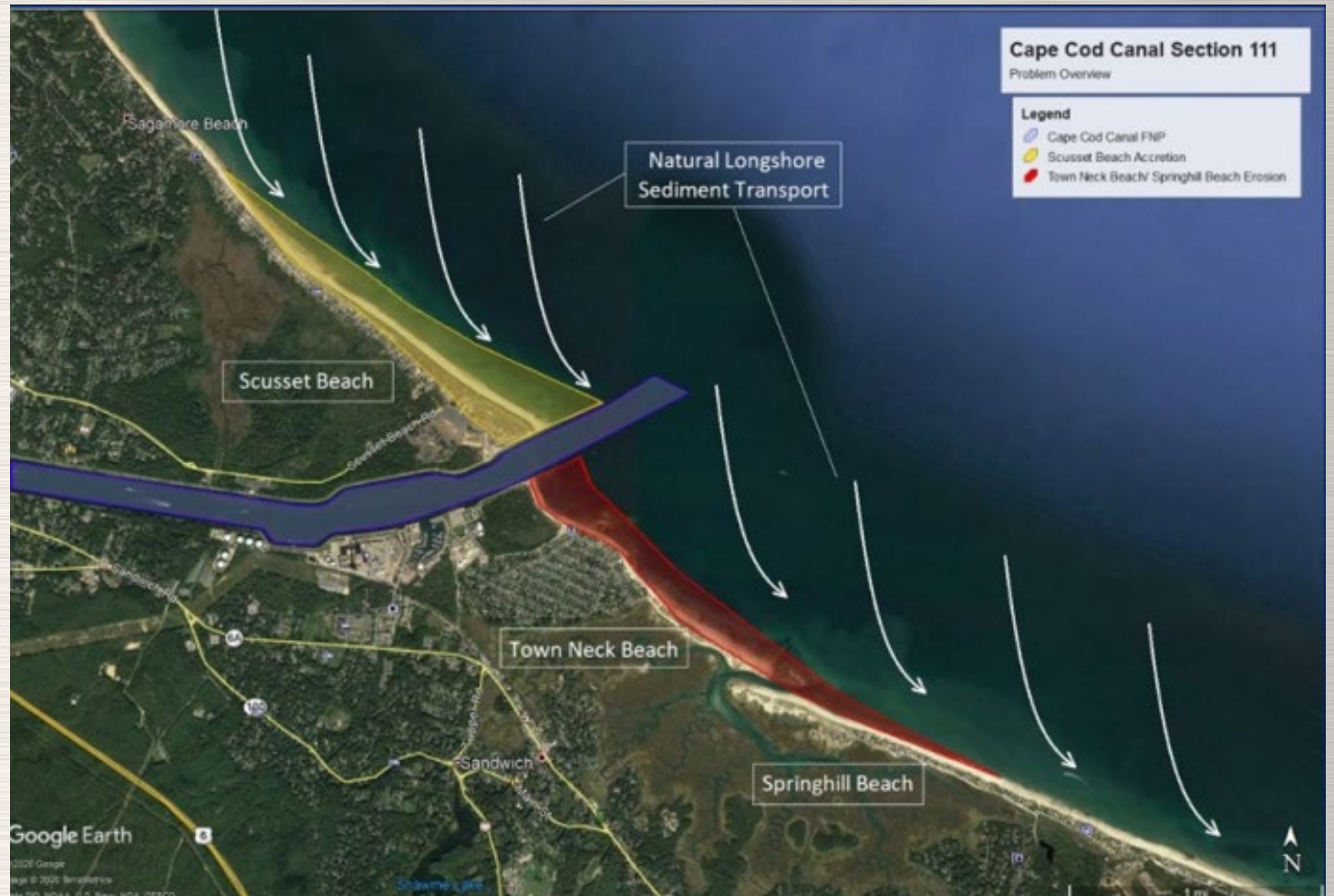
CAP 107 Small scale navigation improvements





# What is a CAP 111 Project?

Projects to address shoreline erosion caused by a federal navigation project



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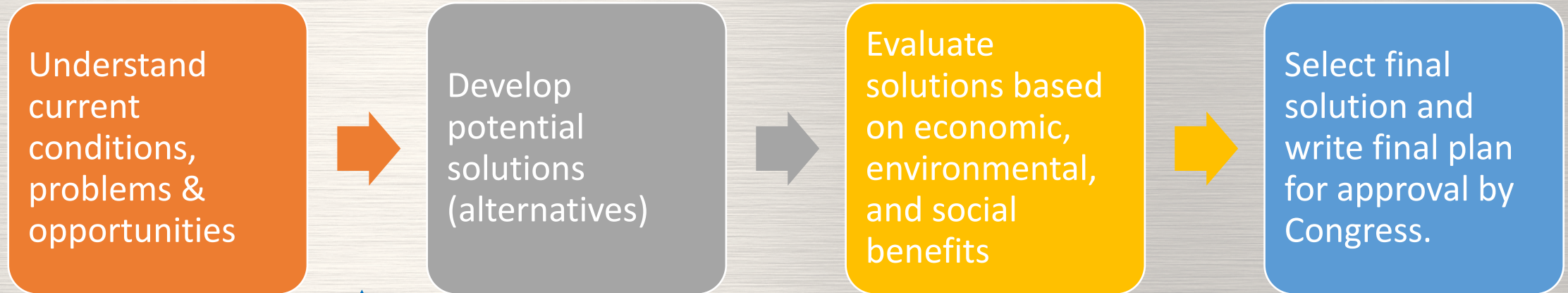
Historic position of shoreline

Natural erosion + no navigation project

Shoreline with navigation project



# Study Approach



We are here 😊



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**Beach Loss within Pillar Point Harbor**

**May 1956 (Pre-breakwaters)**



**May 2011**





# Issues and Objectives

## Existing Issues

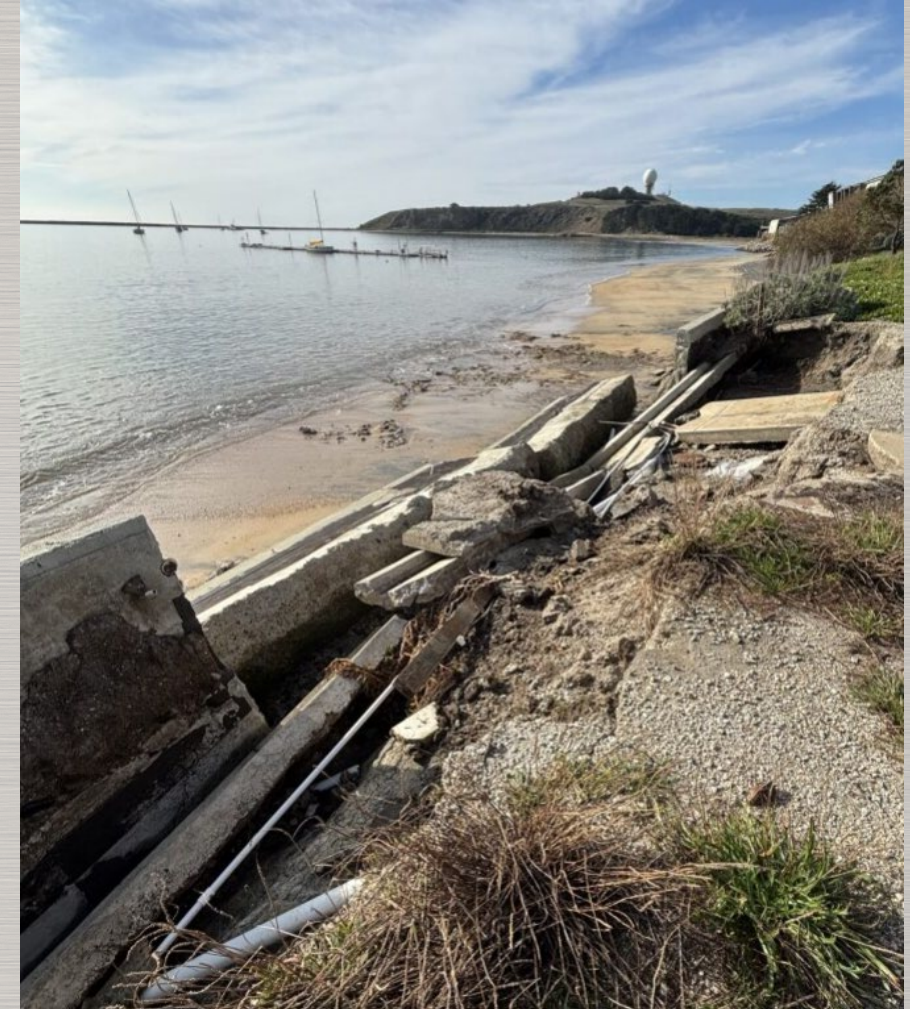
Shoreline erosion tied to the federal breakwater results in:

- Damage to homes, businesses, utilities
- Negative impact on recreation at Princeton Shoreline

## Project Objectives

Lessen the impact of shoreline erosion tied to federal breakwater:

- Minimize damage to homes, businesses, and utilities
- Support and enhance recreation opportunities



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# Potential Solutions



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# Gray

# Nature-Based and Green-Gray Solutions

# Green

Conventional Engineering

Green Gray

Hybrid

Prompted Recovery

Natural

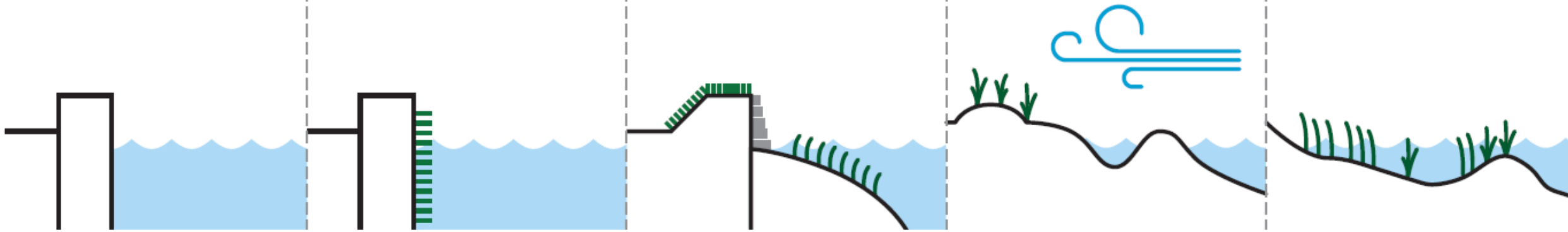
Project or scheme constructed with little or no ecological consideration

Gray infrastructure that intrinsically incorporates green habitat elements by design or retrofitting

Traditional engineering fronted by a created "natural" feature; e.g., salt marsh in front of sheet piling

Scheme initiated by human input that is then dependent on natural process; e.g., dune restoration, sand motor

Naturally occurring habitat; e.g., mangrove, salt marsh, dunes, shingle, rocky shore



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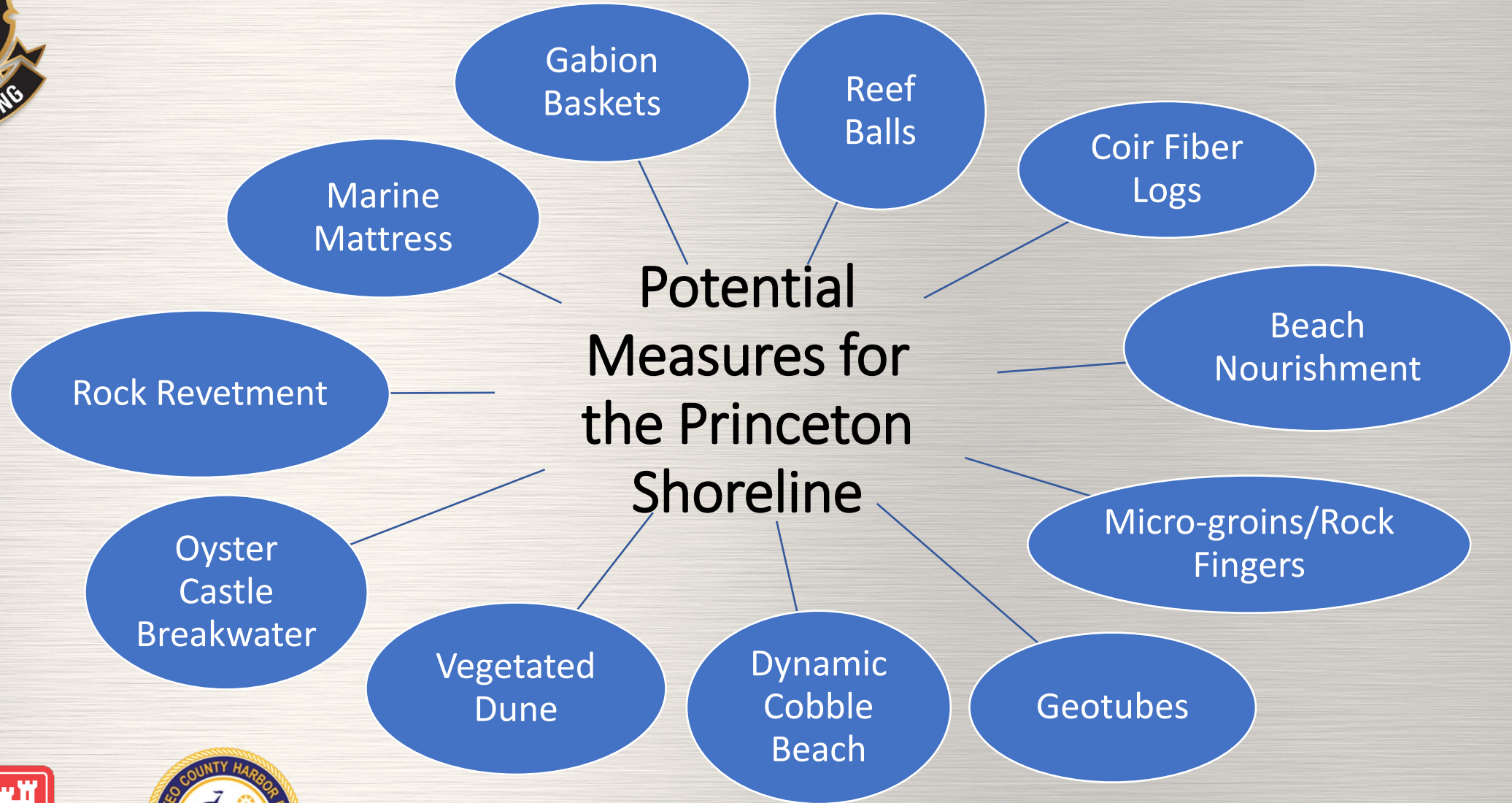


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# What do we mean by nature- based solutions?

*"Nature-based Solutions leverage  
nature and the power of healthy  
ecosystems to protect people, optimize  
infrastructure and safeguard a stable  
and biodiverse future" - International  
Union for the Conservation of Nature  
and Natural Resources (IUCN)*



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Reef Balls



Marine Mattress



Oyster Castle  
Breakwater



Coir Fiber 'Nature  
Based' Revetment



Vegetated Dune



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# Measures are the Building-blocks of Alternatives

Measures



Alternatives of different scales combining 2, 3, or 4 measures



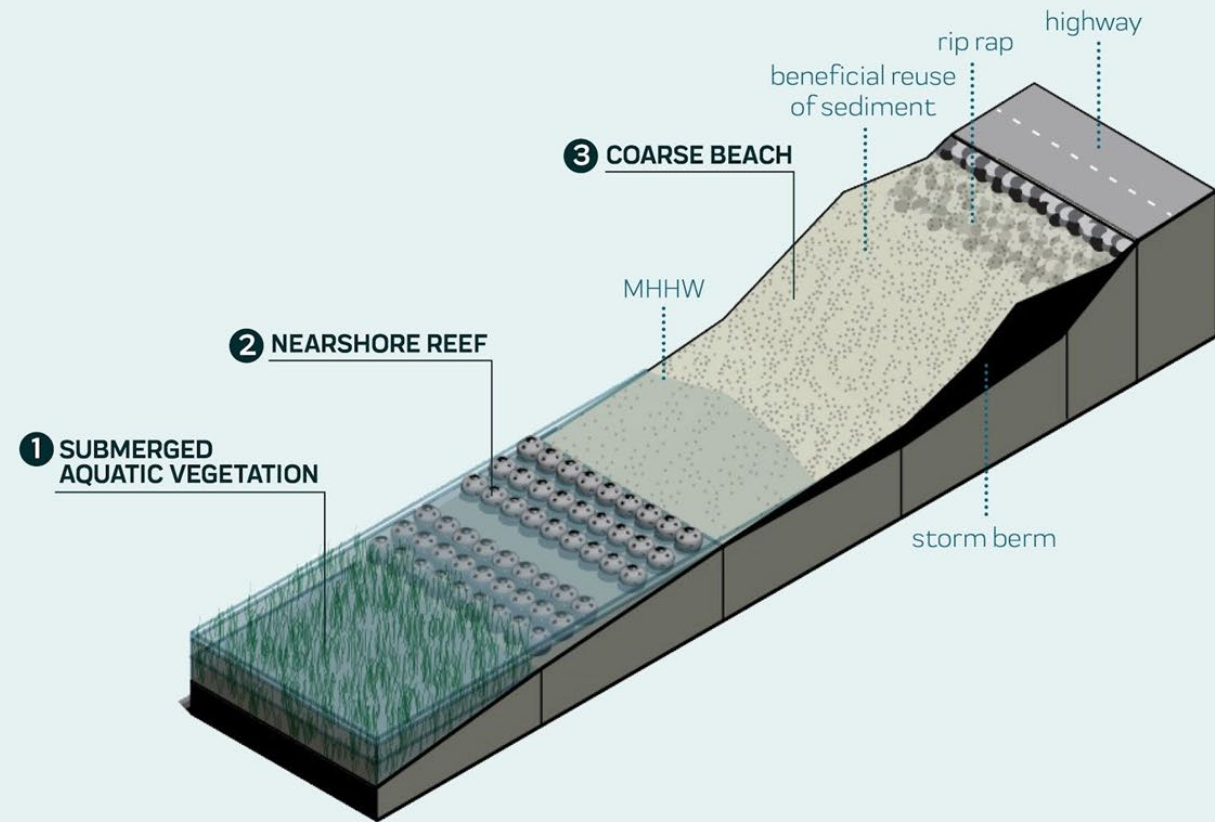
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# Conceptual Strategy Utilizing Nature-Based Solutions



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*San Francisco Estuary Institute and SPUR 2019*



# Local Example: 2020 West Trail Living Shoreline Project

Public access improvements

Beach Nourishment

Rock Finger

Dune

Cobble berm



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# Tribal Consultations



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# Consultation with Tribal Nations

**USACE coordinated with the Native American Heritage Commission to determine Tribal Nations and organizations affiliated with the area:**

- Amah Mutsun Tribal Band
- Amah Mutsun Tribal Band of Mission San Juan Bautista
- Costanoan Rumsen Carmel Tribe
- Indian Canyon Mutsun Band of Costanoan
- Muwekma Ohlone Tribe of the SF Bay Area
- The Ohlone Indian Tribe
- The Ramaytush Ohlone
- Wuksachi Indian Tribe/Eshom Valley Band



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# Public Involvement



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# Public Engagement Opportunities

- **Early fall 2026:** Next step for the public to be involved would be another public meeting when we present the focused array of alternatives
- **Fall 2027** (tentative date): Public review of draft report



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# NEPA Timeline



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# Questions, Comments & Discussion



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