MEETING AGENDA

Coastal Regional Sediment Management Plan for the Eureka Littoral Cell

Wednesday June 8, 8:30-Noon
Humboldt Bay Harbor District Office on Woodley Island

MEETING AGENDA

8:30	Welcome & Introductions
8:40	RSM Program And CSMW Objectives
8:50	Status of Humboldt RSM Plan and Meeting Objectives (Betsy Watson, RSM Consultant)
9:00	Summary of Work and Development/Discussion of Potential Implementation Options (Dilip Trivedi, RSM Consultant)
10:30	Break
10:45	Implementation of the RSM (Adam Wagschal & Betsy Watson, RSM Consultants)
11:15	Focused Discussion
12:00	Adjourn

Please call 707 443-0801 for information on how to call-in.

Coastal Sediment Management Workgroup

CALIFORNIA natural resources AGENCY

US Army Corps of Engineers®

A collaborative effort by federal and state agencies chaired by the U.S. Army Corps of Engineers South Pacific Division and the California Natural Resources Agency

Mission

Conserve, restore, and protect California's coastal resources by developing and facilitating regional *approaches to managing sediment imbalances.*

Goals

- *To reduce shoreline erosion and coastal storm damages;*
- *restore and protect beaches and coastal habitat by restoring natural sediment supply from rivers, impoundments and other sources to the coast; and*
- *optimize the use of sediment from ports, harbors, and other opportunistic sources.*

Coastal Sediment Management Workgroup

Federal

USACE
- SPL
- SPN

USGS
NOAA
MMS

State

Natural Resources Agency
Boating & Waterways
Coastal Commission
Parks & Recreation
Geological Survey
Fish & Game
Coastal Conservancy
SWRCB
Ocean Protection Council

Local

Cal Coast

Humboldt Bay Harbor RCD

NGOs

CMANC (Ports & Harbors)

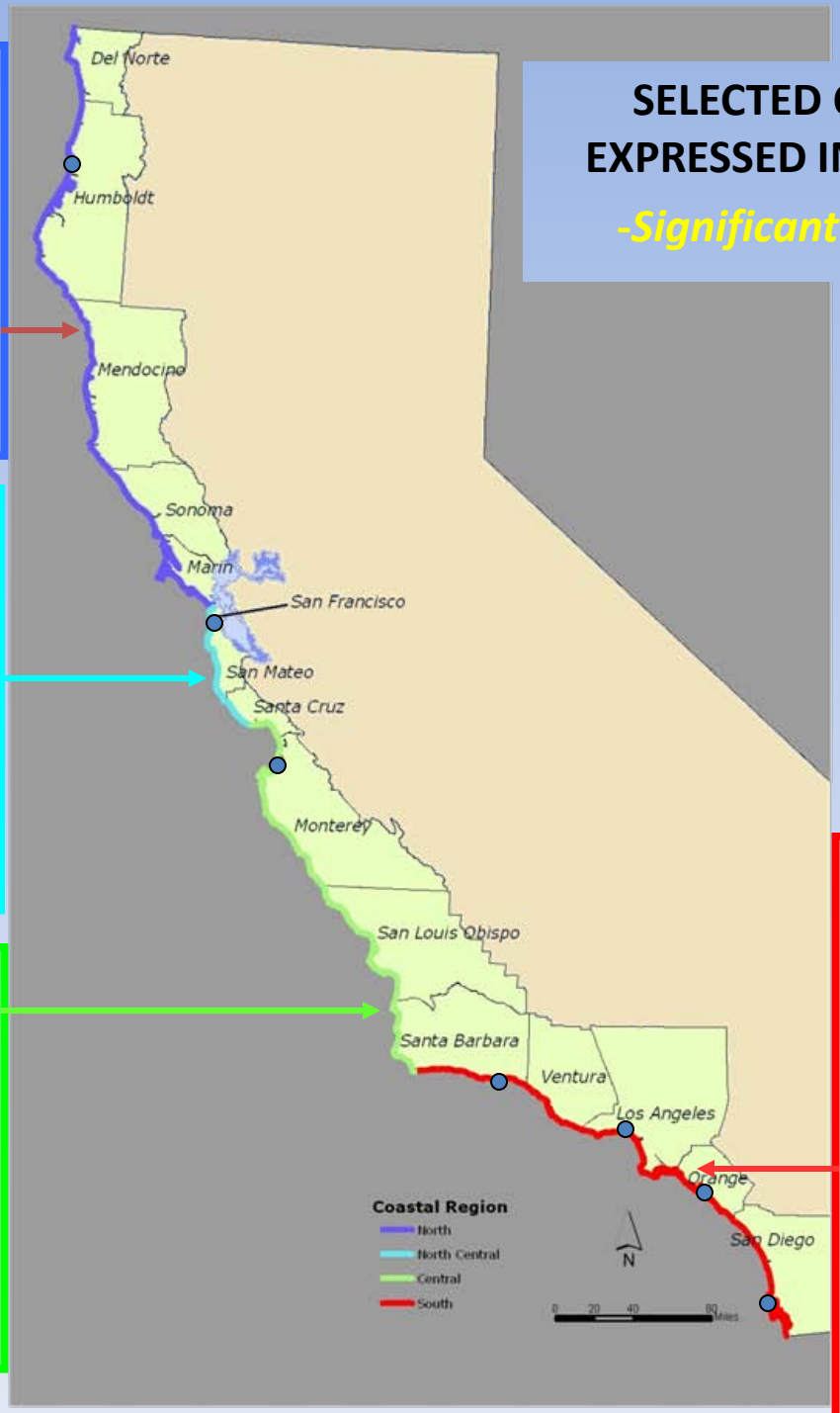
SELECTED COASTAL CONCERNS EXPRESSED IN PUBLIC WORKSHOPS

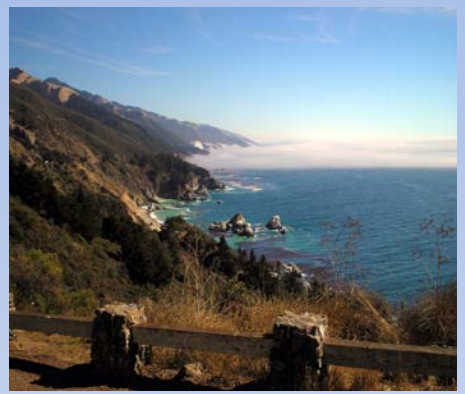
-Significant Regional Differences-

Maintain Habitat
Sediment Budgets, Loads, Excess
Coastal Processes
Dredge Placement
Wood Budgets

Shore Protection
Bird Habitats
Sand Mining
Sand Rights
Natural Processes

Pollutant Effects
Agricultural Runoff
Coastal Armoring
Sand Mining
Dune Erosion



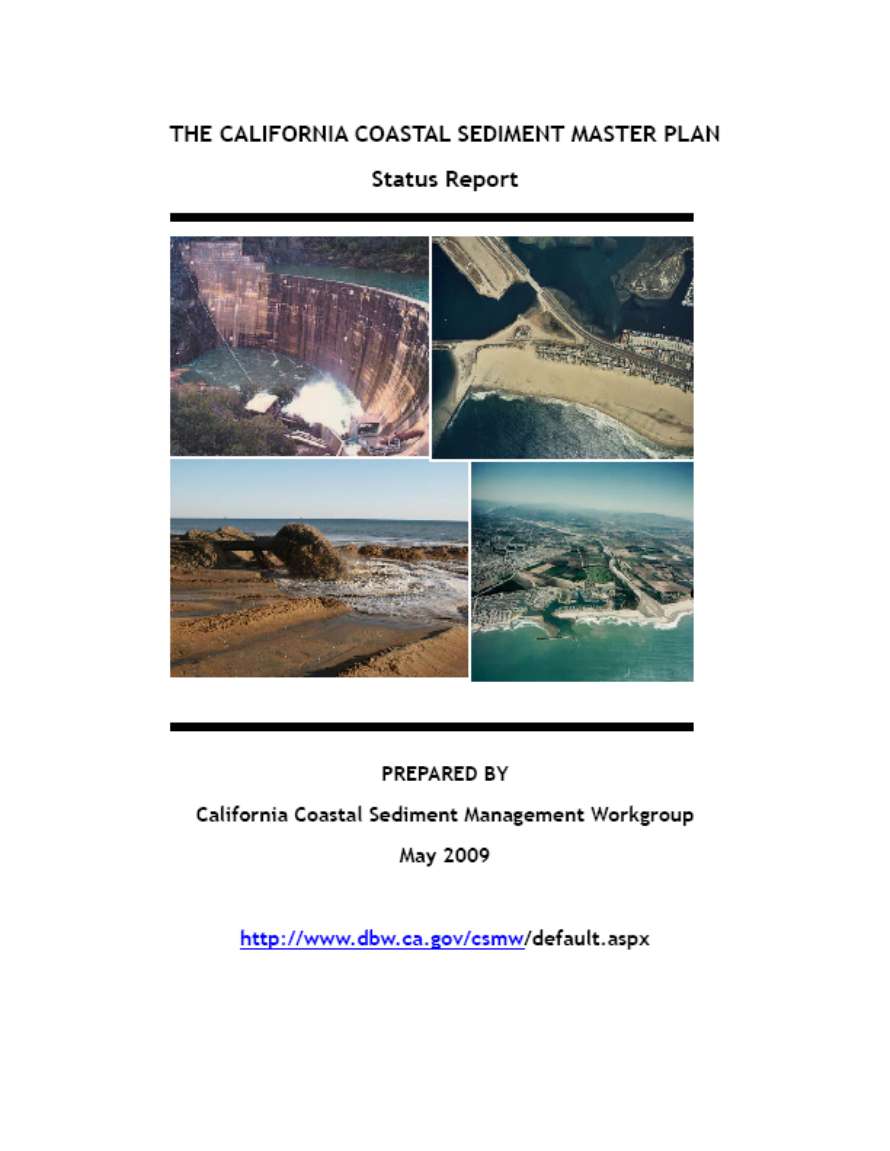


Shore Protection
Economic Losses
Wetlands, Harbors
Opportunistic Sed.
Contaminated Sed.
Critical Species
Surfing conditions

COASTAL SEDIMENT MASTER PLAN

“Deliverables”:

- Educational materials, reports & data
- Computer-based decision support tools
- **Regional-based Coastal RSM Plans.**



THE CALIFORNIA COASTAL SEDIMENT MASTER PLAN

Status Report

PREPARED BY

California Coastal Sediment Management Workgroup

May 2009

http://www.dbw.ca.gov/csmw/default.aspx

Coastal Sediment Management Workgroup

Coastal Regional Sediment Master Plans

Completed

Southern Monterey Bay Littoral Cell

(AMBAG)

Santa Barbara Littoral Cell

(BEACON)

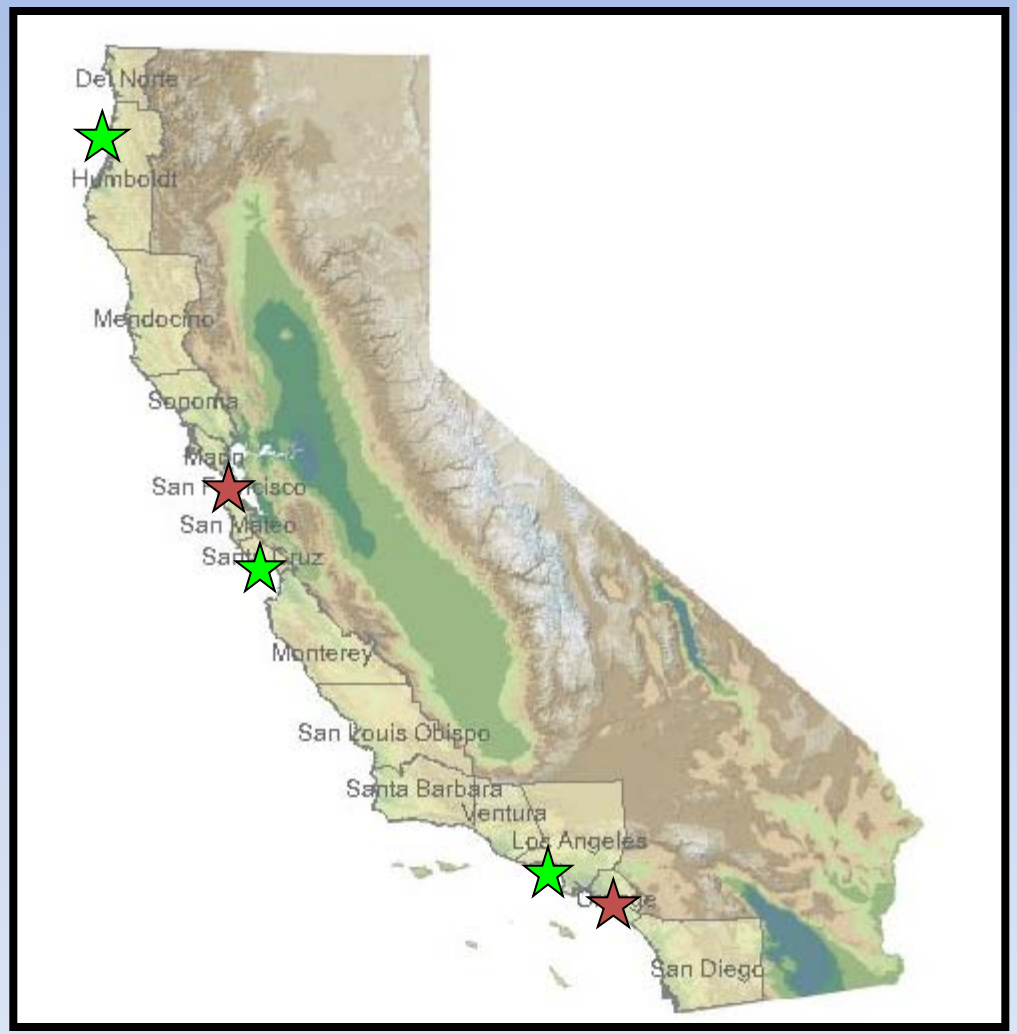
San Diego County

(SANDAG)

Coastal Regional Sediment Master Plans

Upcoming

- **Eureka Littoral Cell**
- **San Francisco Bay & Coastline**
- **Northern Monterey Bay**
- **Los Angeles County**
- **Orange County**



Coastal RSM Plan Elements:

Technical

- Compile relevant references
- Identify critical eroding areas
- Determine potential sediment sources
- Assess sediment quality information
- Locate critical species and habitats
- Data Gaps, other issues of concern
- Permitting requirements
- Identify potential funding streams

Coastal Sediment Management Workgroup: Coastal Regional Sediment Management Plan Eureka Littoral Cell

Sponsor: Humboldt Bay Harbor, Recreation, and Conservation District

Report Development:
MOFFATT AND NICHOL
Long Beach & Walnut Creek, CA

Project Management:
U.S. Army Corps of Engineers
Susan Ming, Project Manager
(Los Angeles District)
John Dingler, Lead Planner
(San Francisco District)

Photograph: Gary Todoroff

Coastal Regional Sediment Management Plan (CRSMP) for Eureka Littoral Cell

Stakeholder Meeting 3

June 8, 2011

What is the CRSMP ?

- A guidance and policy document discussing how regional sediment management can be implemented in an expeditious, cost-effective, and resource-protective manner.
- Provides sufficient information for decision-makers to develop policies and/or execute management sub-plans to ensure the future vitality of California's beaches and shoreline"

Key Objectives

1. Provide a strategy to restore and maintain coastal beaches and other critical areas of sediment deficit;
2. Reduce the proliferation of protective shoreline structures;
3. Sustain recreation and tourism;
4. Enhance public safety and access;
5. Restore coastal sandy habitats through the region/littoral cell;
6. Address areas with excessive sediment.

Led by Coastal Sediment Management Workgroup (CSMW)

Consists of US Army Corps Districts (LA & SF) and State Resources Agency, working with Local Sponsors (Humboldt Bay Harbor, Recreation and Conservation District for this RSM)

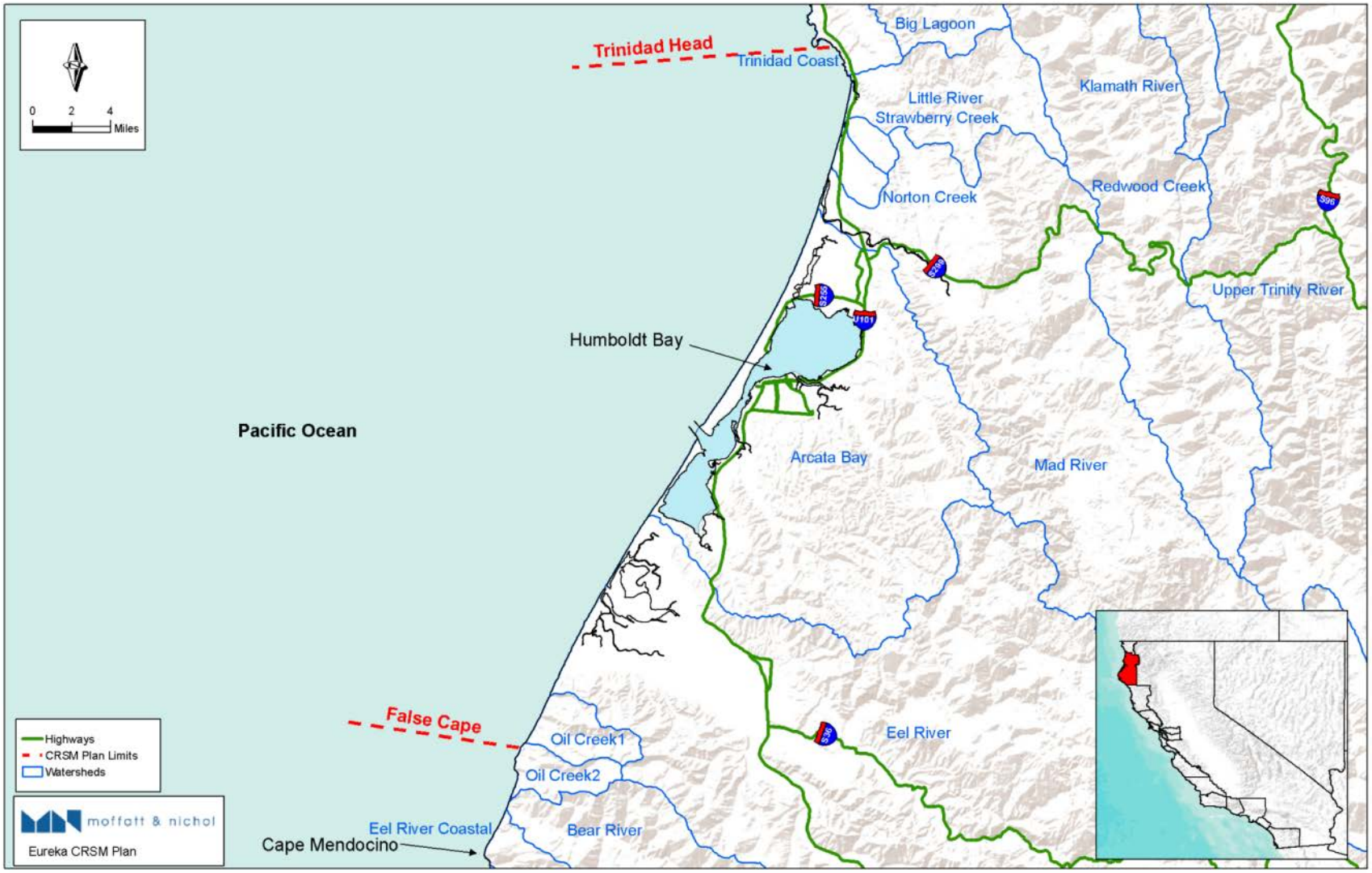
RSM Team Tasked With:

1. Data Collection And Compilation
   (electronic database, annotated bibliography, GIS data)
2. Stakeholder Outreach and Coordination
   (conducted 2 prior meetings)
3. Plan Formulation
   (potential options and implementation priority)
4. Coastal Regional Sediment Management Plan Report
   (Draft & Final with stakeholder input)

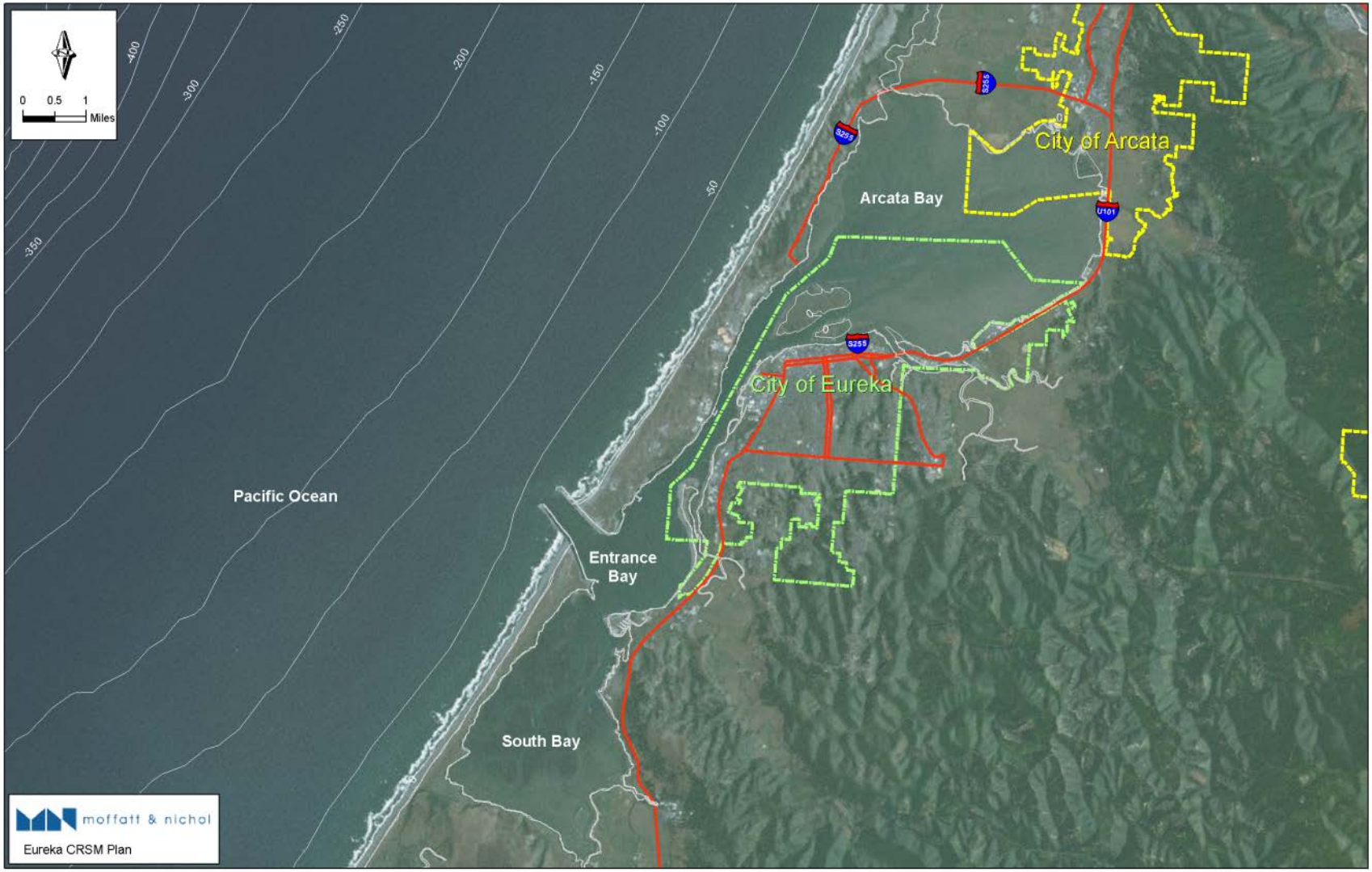
Agencies/Groups Contacted to-date

- Federal (USACE, NOAA Fisheries, USFWS, BLM, USGS)
- State (DBW, CCC, SWRB, SCC, CDFG, Caltrans)
- Local Govt (HBHRCD, Humboldt Co, Eureka, Arcata, Fortuna)
- Wiyot Nation
- Local Business (Commercial/Recreation Fisheries, Gravel Mining, Mariculture)
- Academia & Scientists (HSU + other private)
- NGO's (Baykeeper)

Eureka Littoral Cell Boundaries

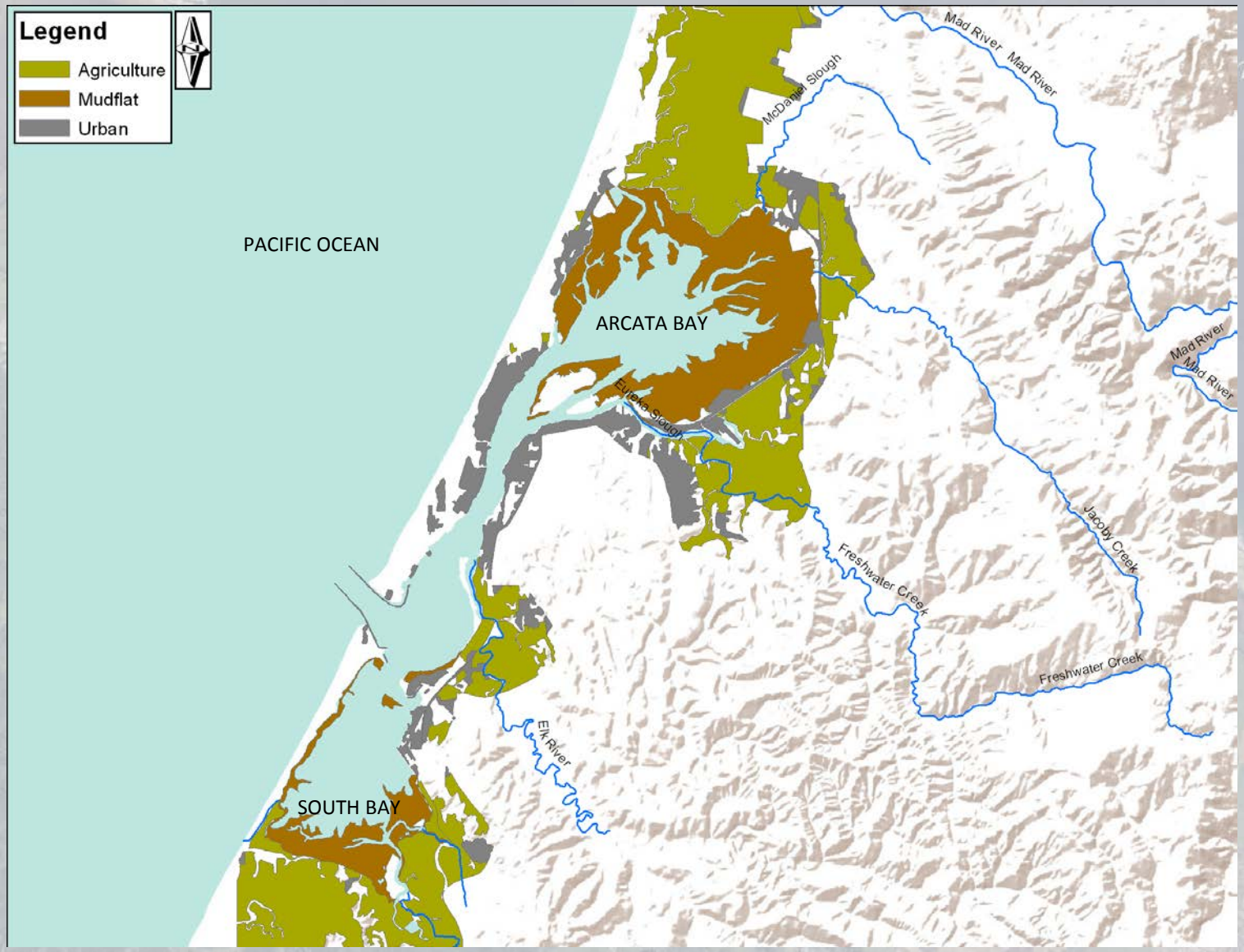


Jettied Inlet / Barrier Beach System (ca. 1900)

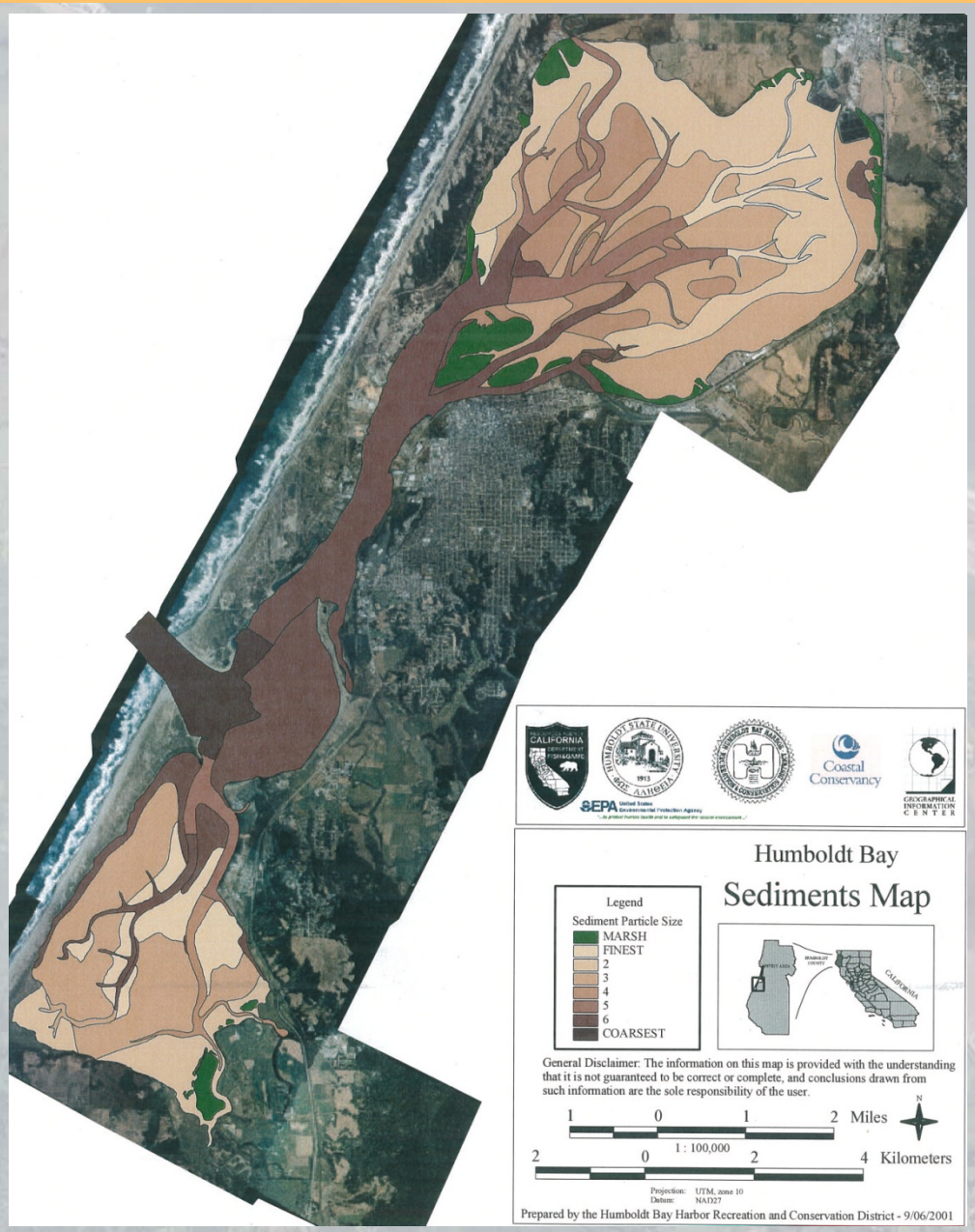


lt Bay Wetlands
three main wetland categories, generalized from
nal Wetlands Inventory classification system.
wn are: subtidal wetlands (channels and deep
dal bottom and shore (excluding marshes); and
rshes.
PACIFIC OCEAN
255
Eureka
Arcata
101
McKinleyville
Elk R.
Freshwater Cr.
Jaco
General Wetland Ca

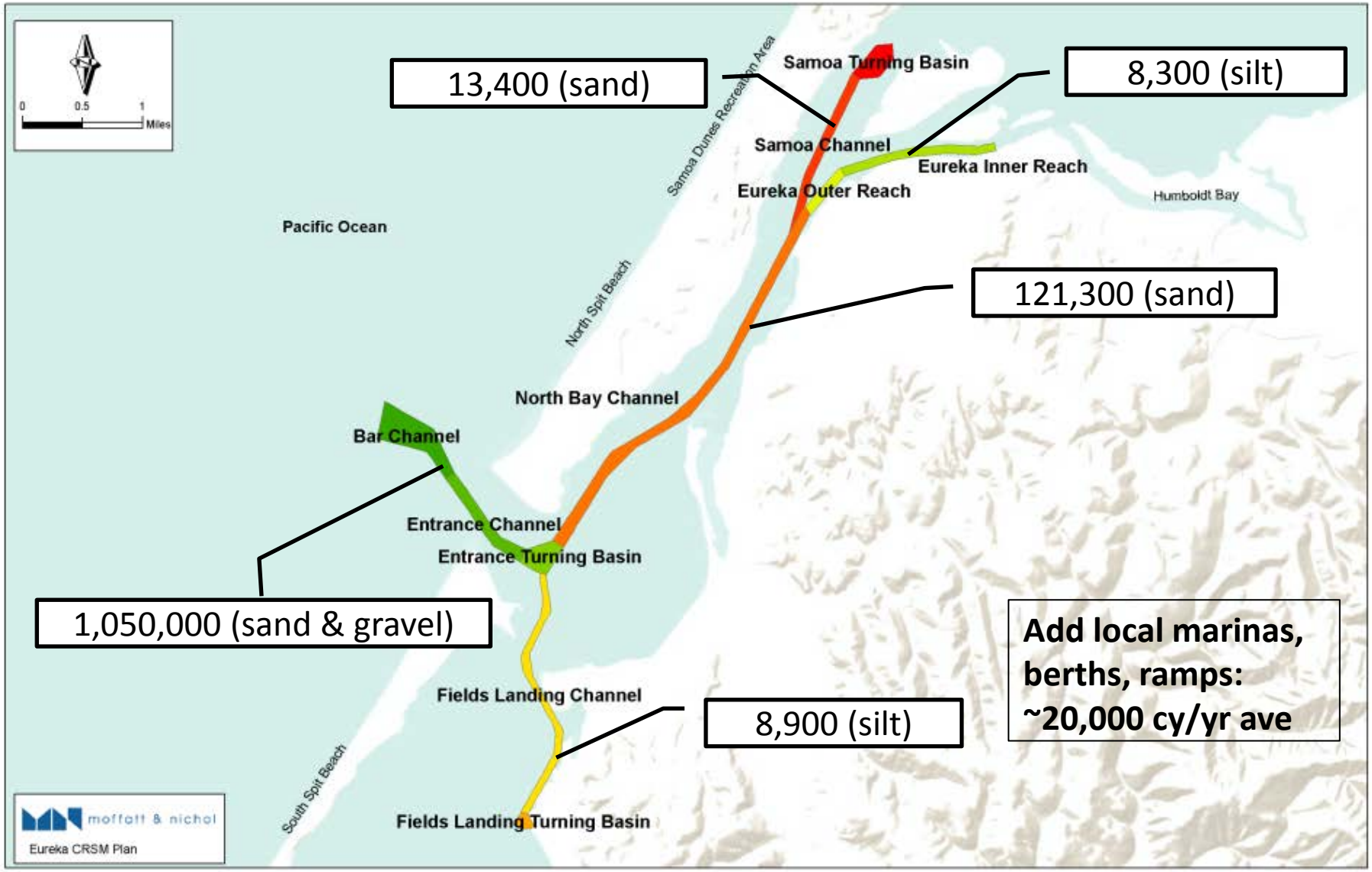
Present Conditions



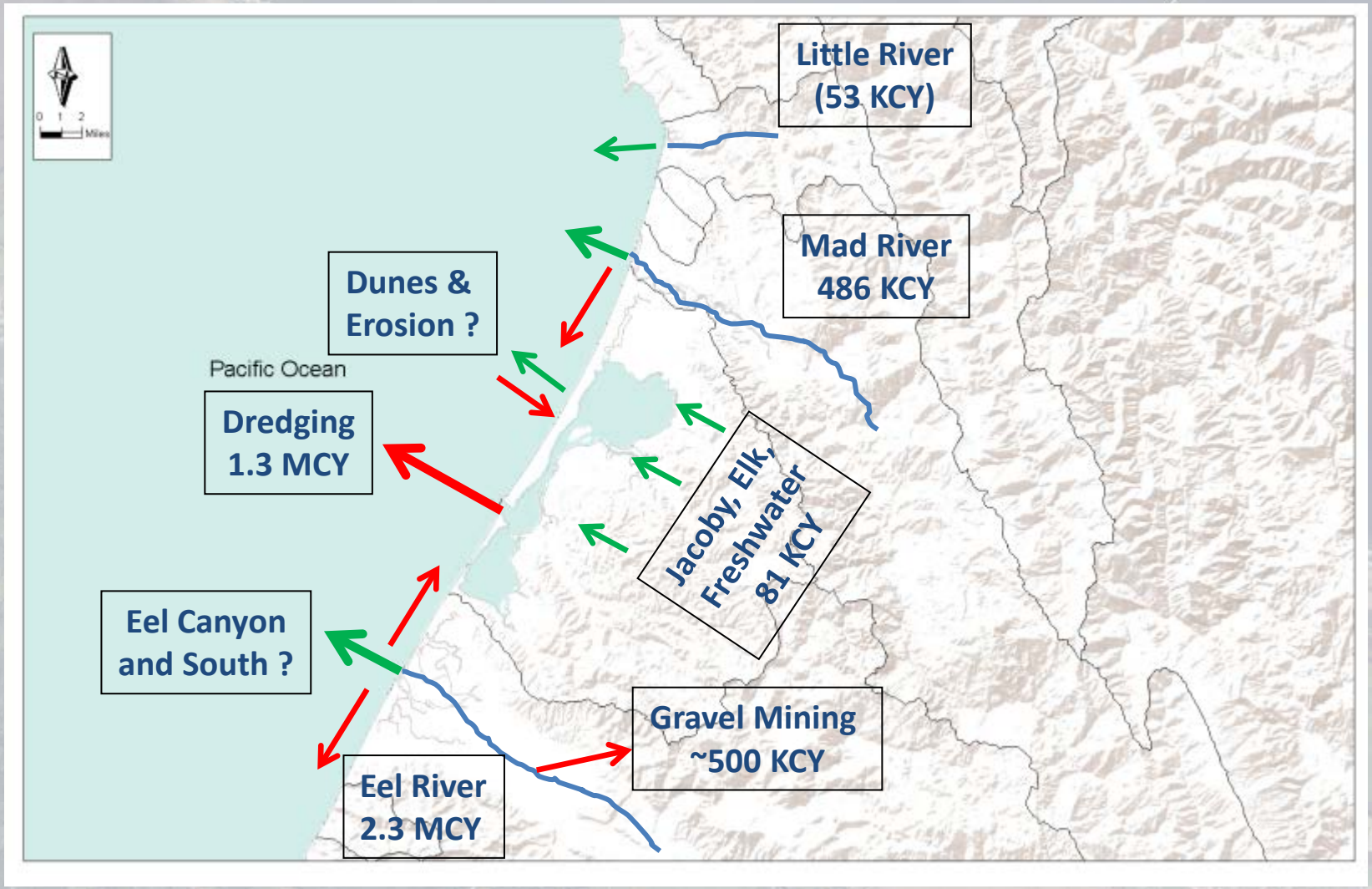
Bottom Sediments



Navigation / Dredging

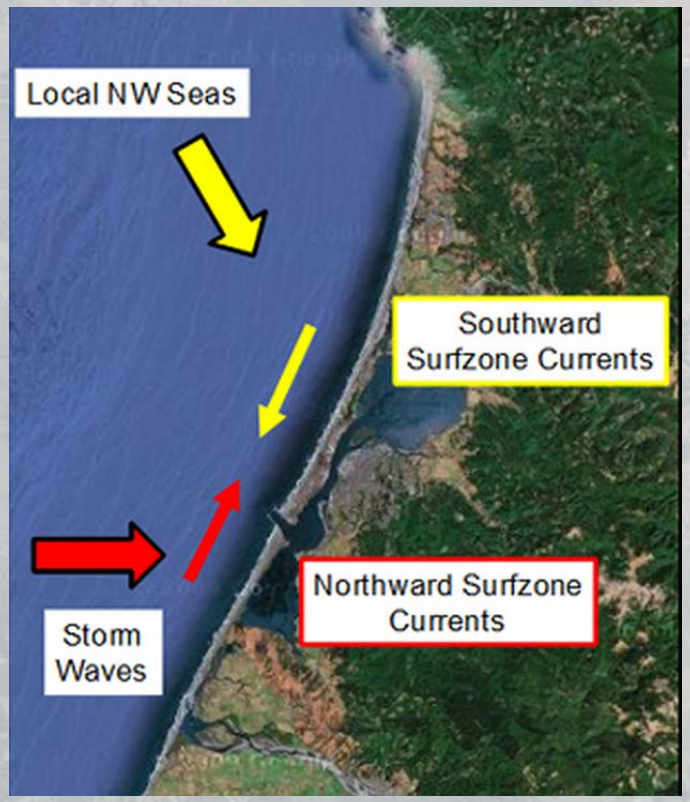


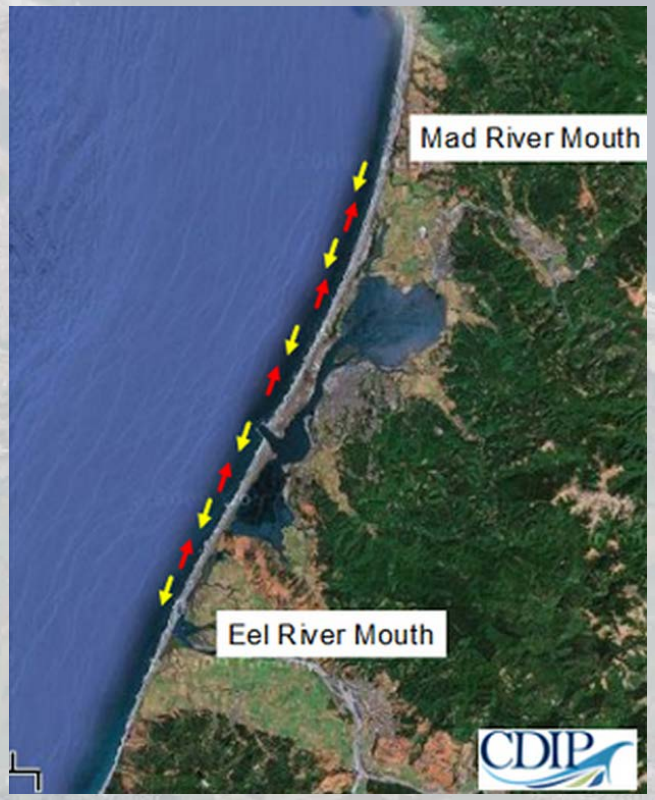
Sediment Budget ?



Recent Coastal Studies (MOPS & USACE)

1. Severe winter storm waves up to 40 feet from the west, resulting in northward transport
2. Milder 6-ft summer sea-conditions predominantly from the north-west, resulting in southward transport
3. Net littoral transport balanced by local seas and winter storm waves.

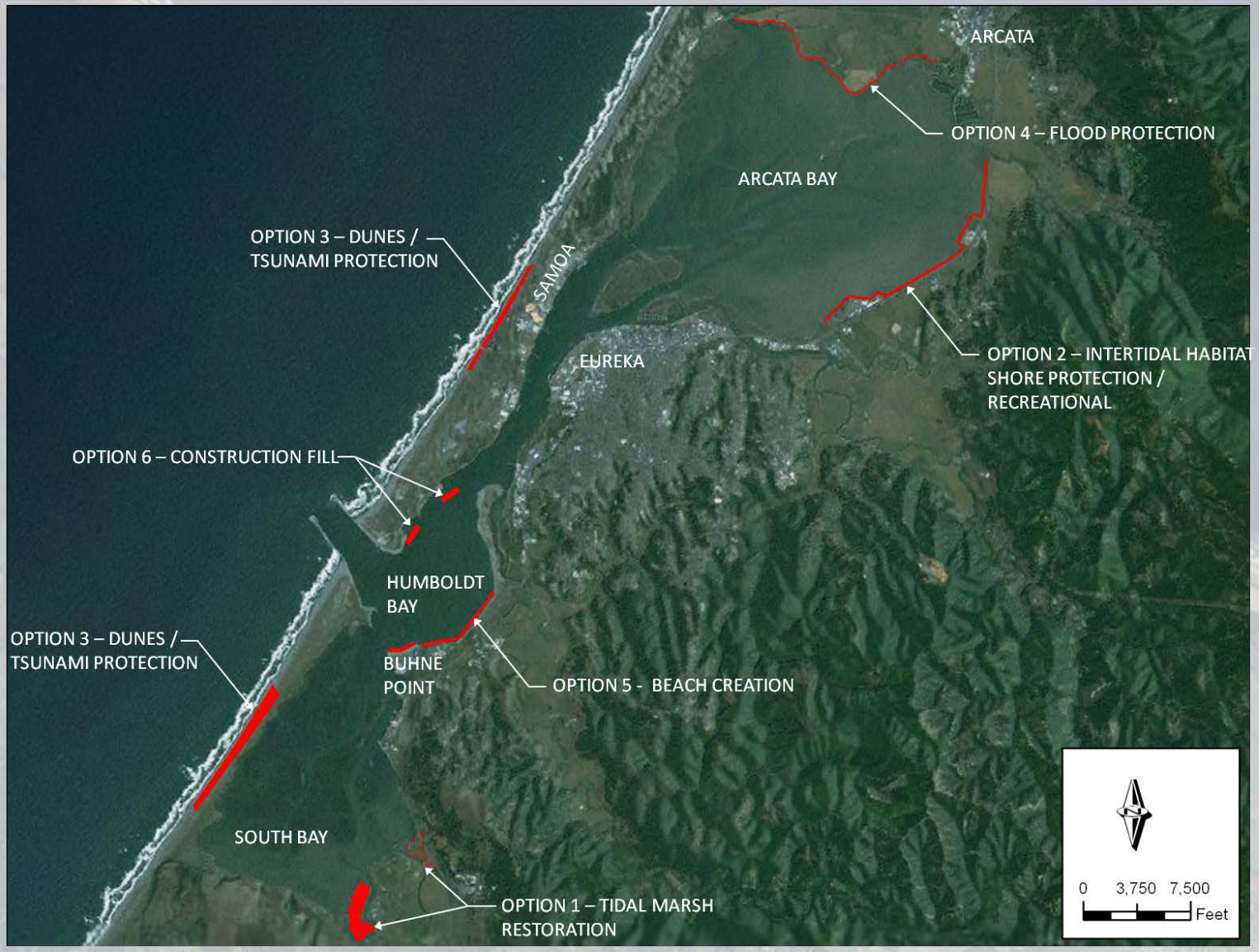




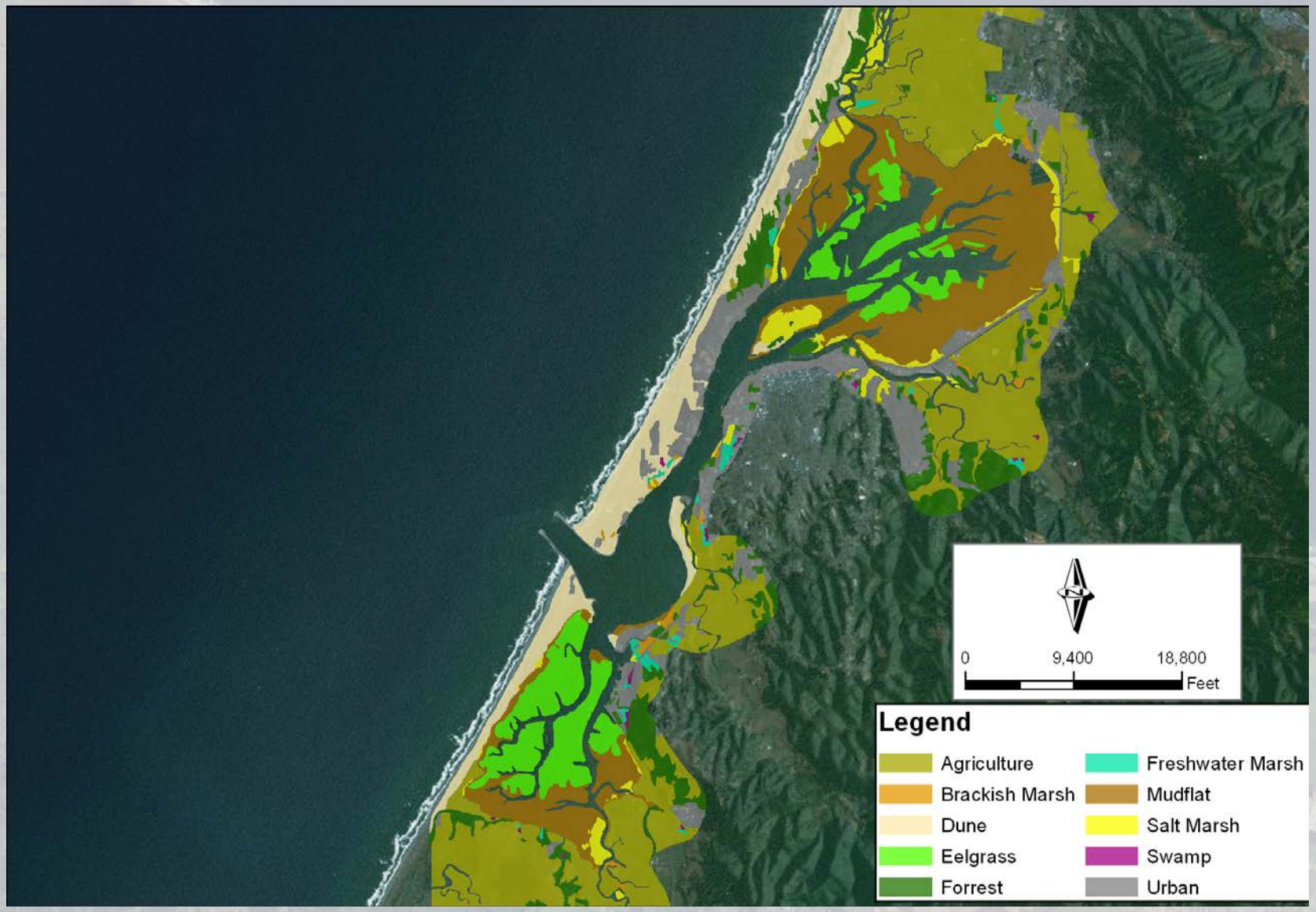
Potential Implementation Options

1. Tidal Marsh Restoration
2. Recreate Tidal Marsh Buffer
3. Dune/Beach Nourishment (+ Tsunami protection)
4. Levee Stabilization
5. Beach Nourishment
6. Construction Fill

Potential Implementation Options



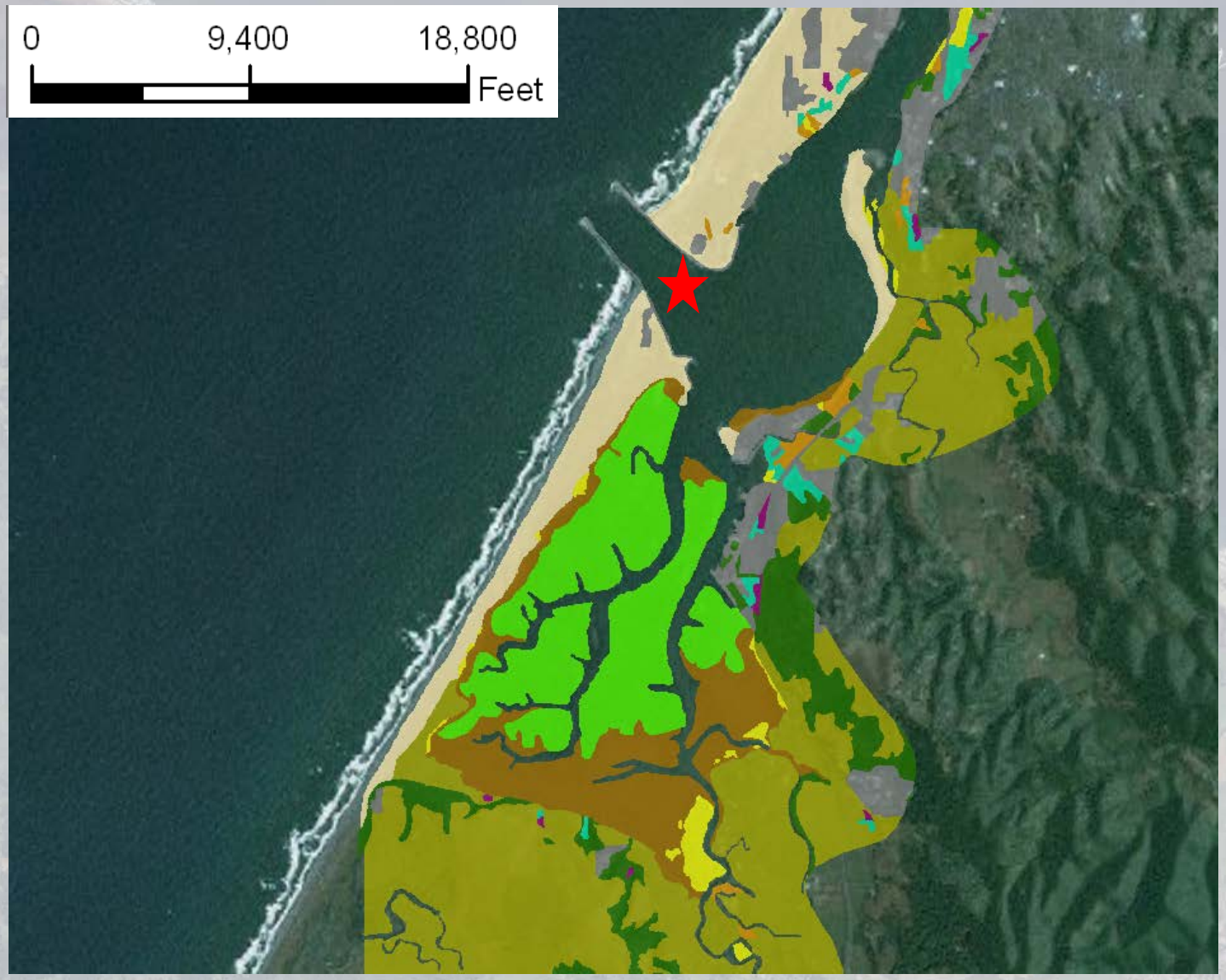
Option 1: Tidal Marsh Restoration **(Need)**



Option 1: Tidal Marsh Restoration *(Concept)*

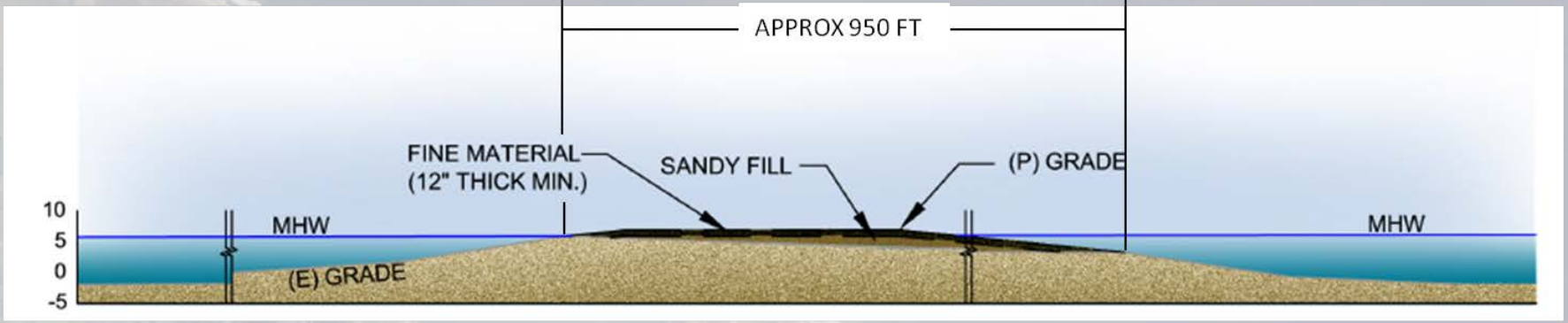
Approx 3 feet of fill to bring it to MHHW
Hydraulically pump from dredge or use unloader

Option 1: Tidal Marsh Restoration *(Delivery)*

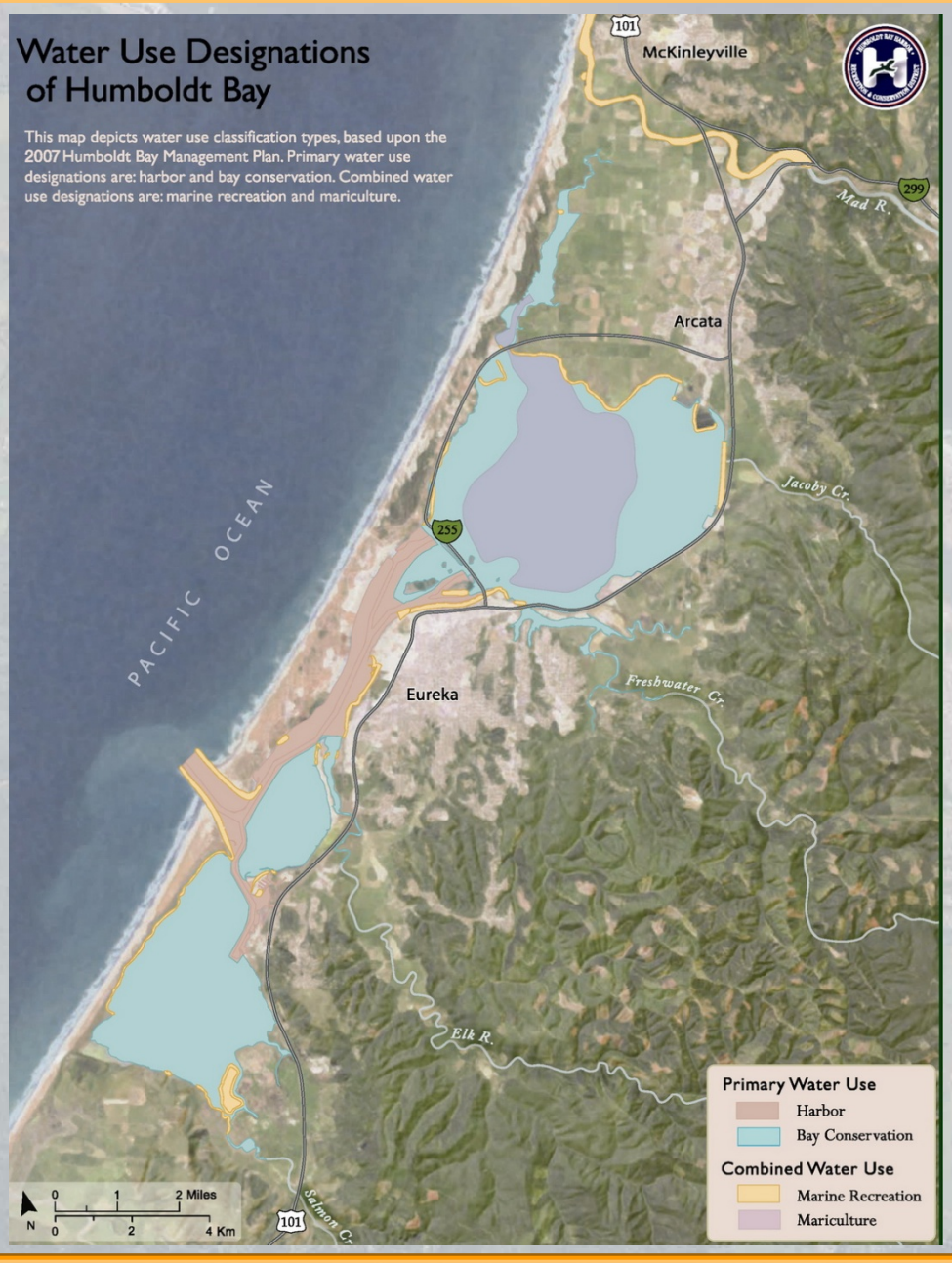


Option 1: Tidal Marsh Restoration *(Case Study)*

Option 1: Tidal Marsh Restoration (Details)

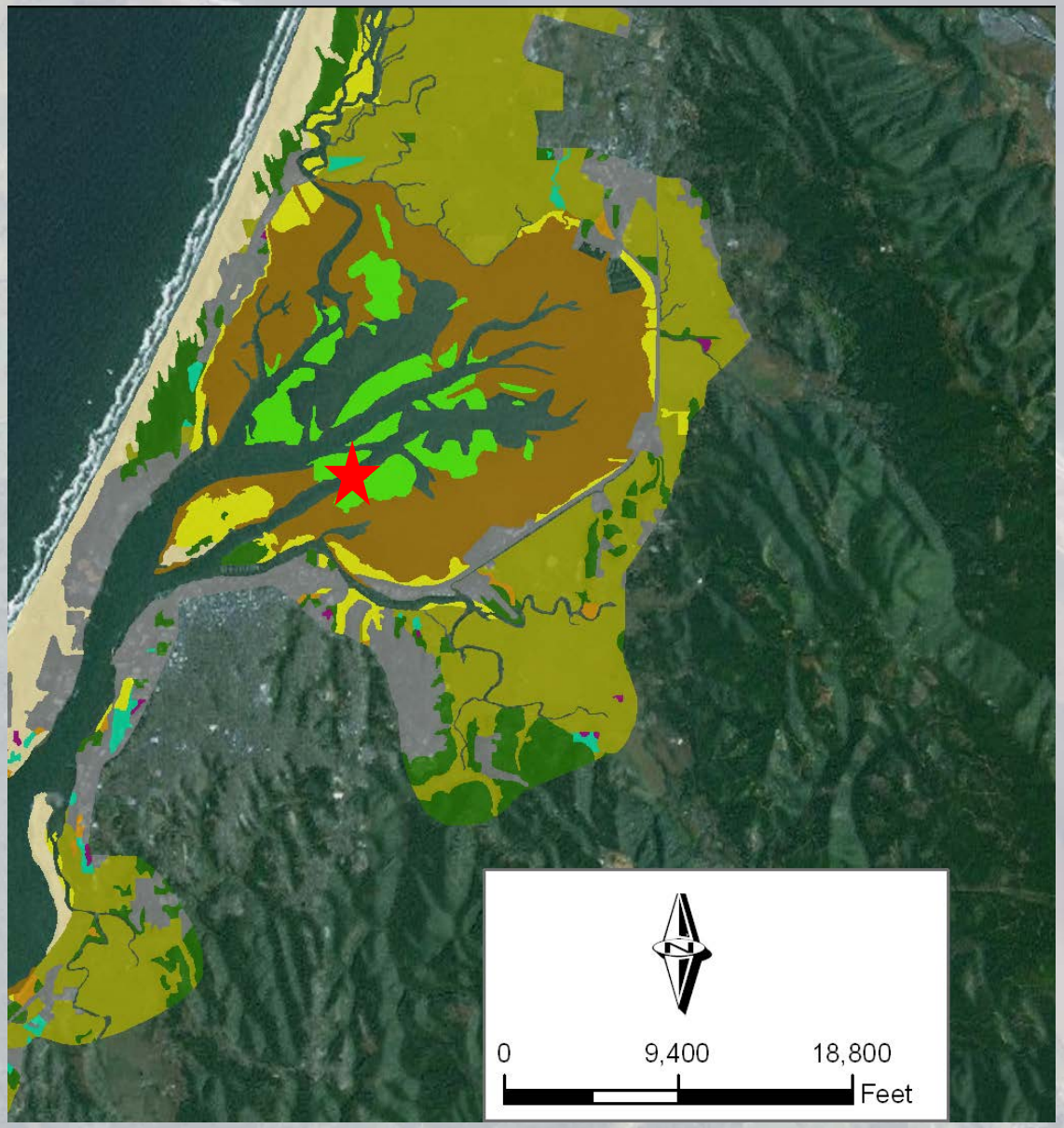


Teal Island Option:
350,000 CY (Sandy)
150,000 CY (Mud)



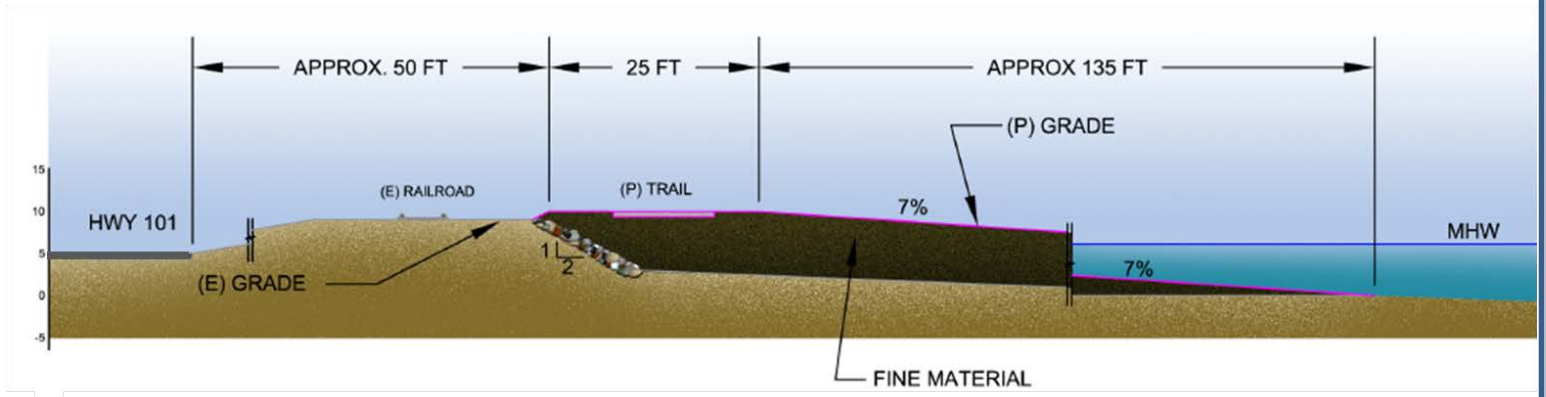
Option 2: Recreate Tidal Marsh Buffer *(Need)*

Option 2: Recreate Tidal Marsh Buffer **(Concept)**



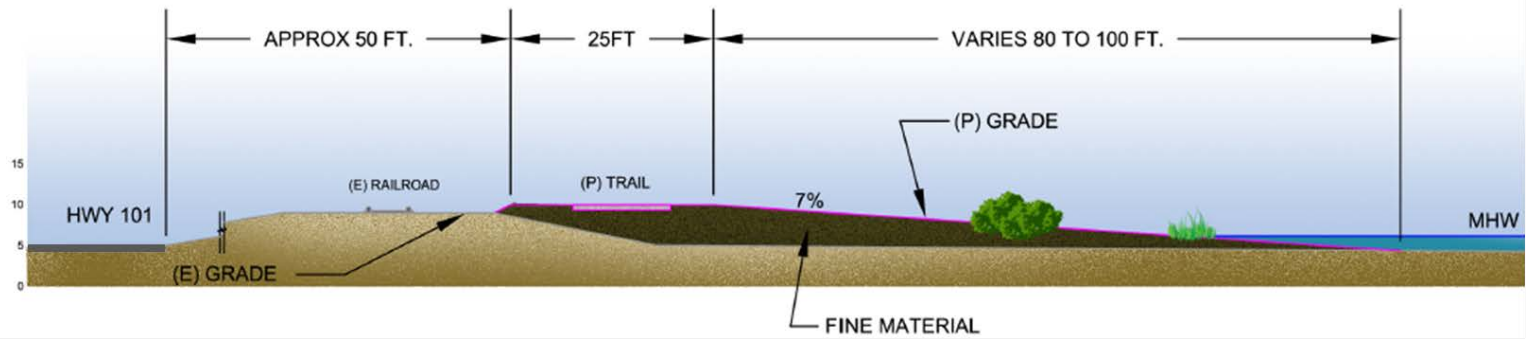
Option 2: Recreate Tidal Marsh Buffer (Delivery)

Option 2: Recreate Tidal Marsh Buffer **(Details)**



B-B

SCALE: 1" = 20'



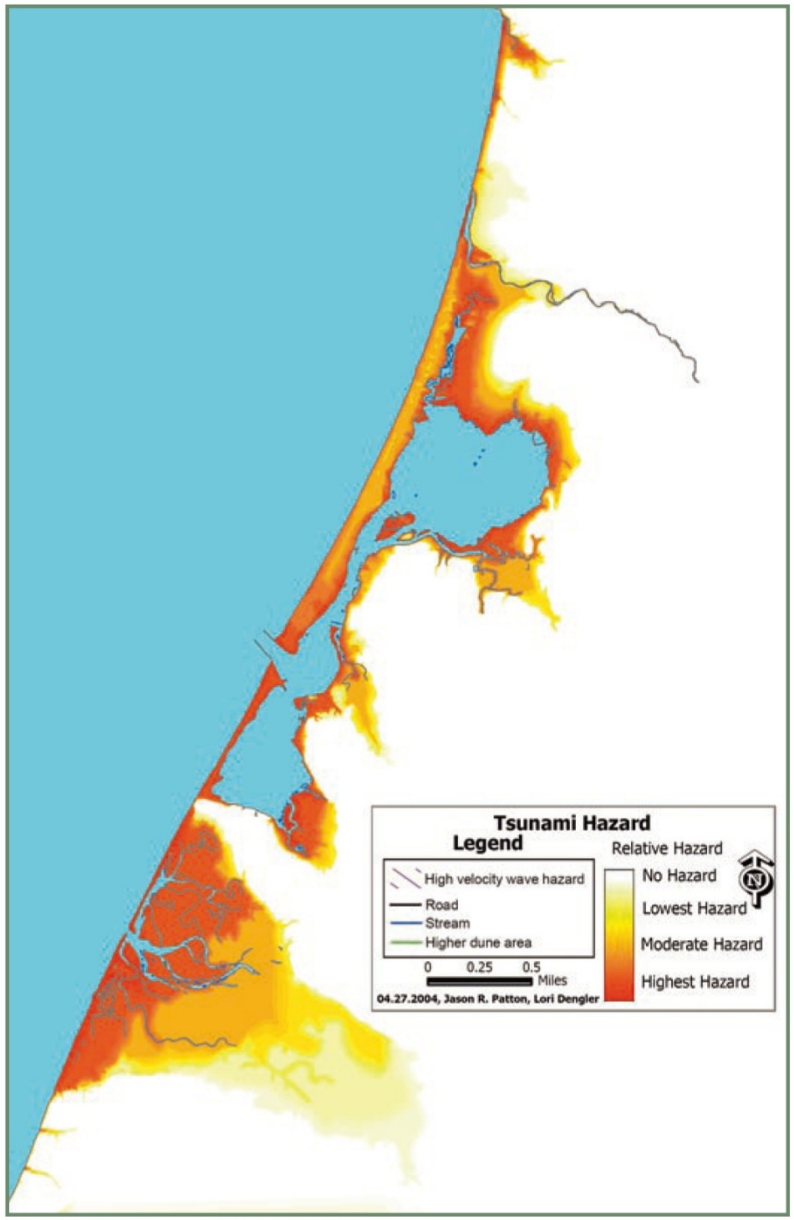
A-A

SCALE: 1" = 20'

Beneficial Reuse As Shown: 635,000 CY

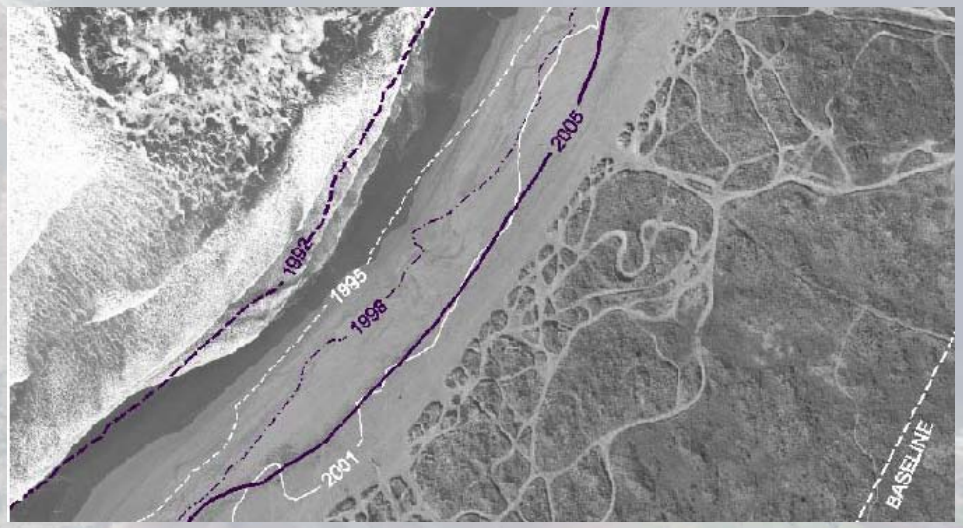
Need to re-handle or stockpile

Option 2: Recreate Tidal Marsh Buffer ***(Case Study)***

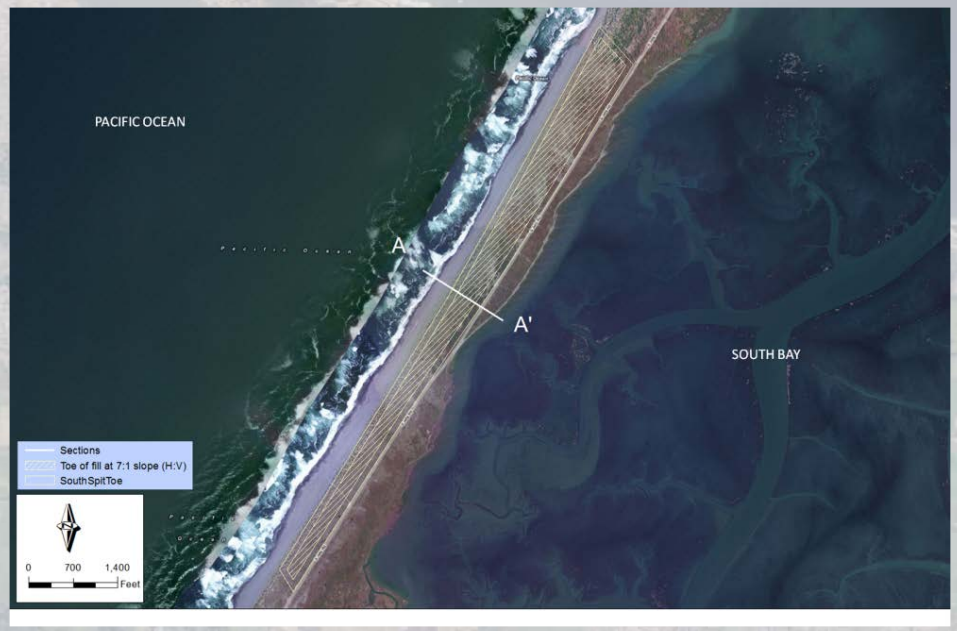


Draft Tsunami Hazard Map

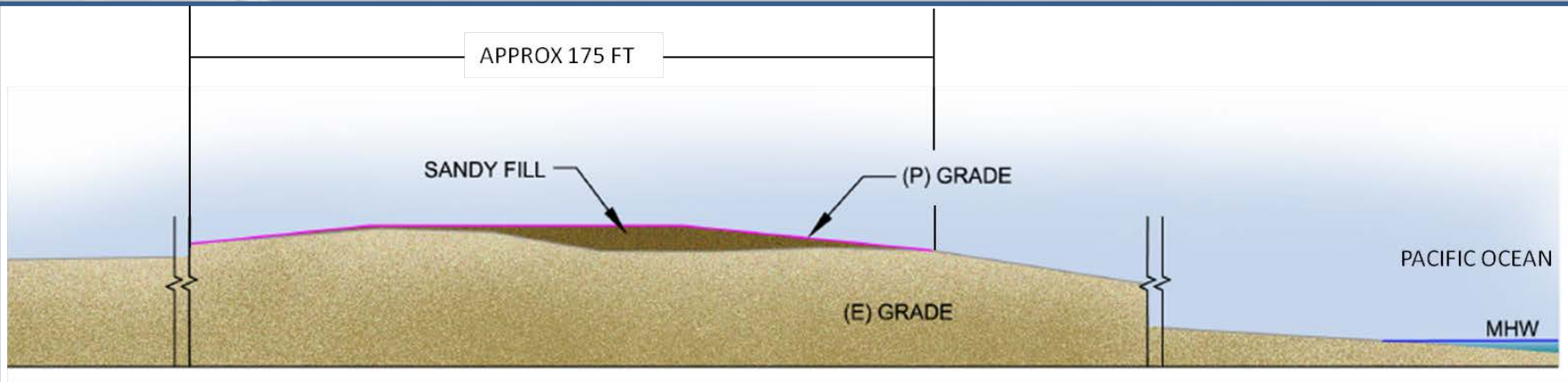
Option 3: Dune / Beach Nourishment (Need)



Option 3: Dune Nourishment/Stockpile *(Concept)*

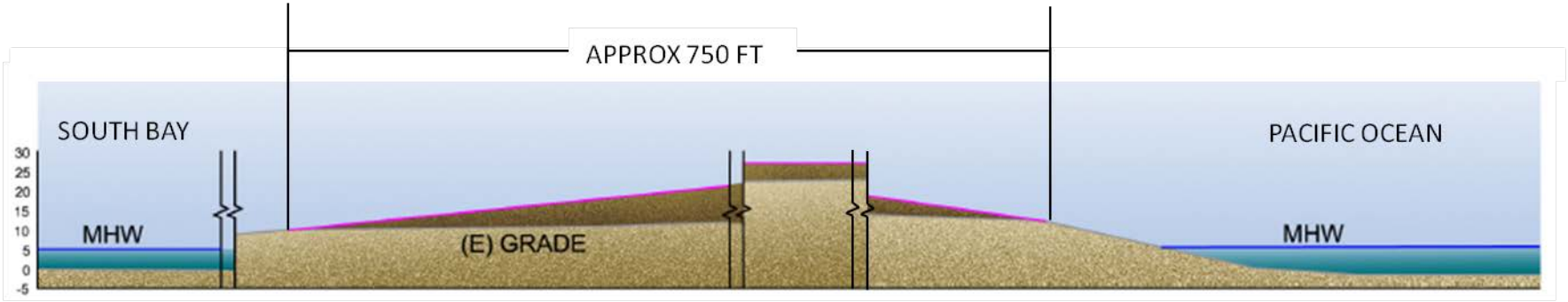


Option 3: Dune Stockpile/Nourishment (Details)



NORTH SPIT

SCALE: 1" = 40'

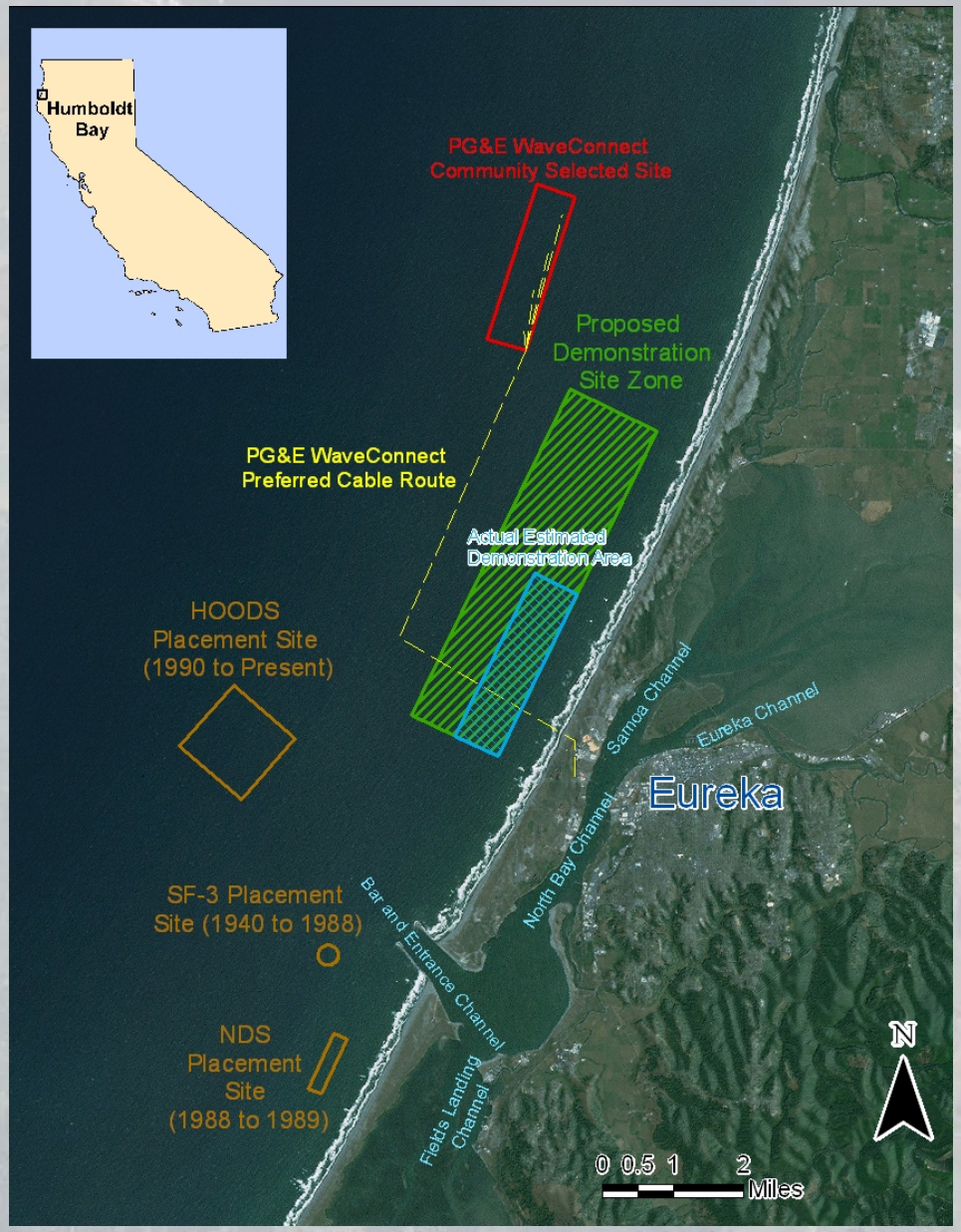


SOUTH SPIT

SCALE: 1" = 50'

Beneficial Reuse As Shown: 165,000 CY for North Spit & 1,500,000 for South Spit

Need to re-handle or pump directly from Hopper Dredge



Option 3: Beach Nourishment (concept proposed by USACE)

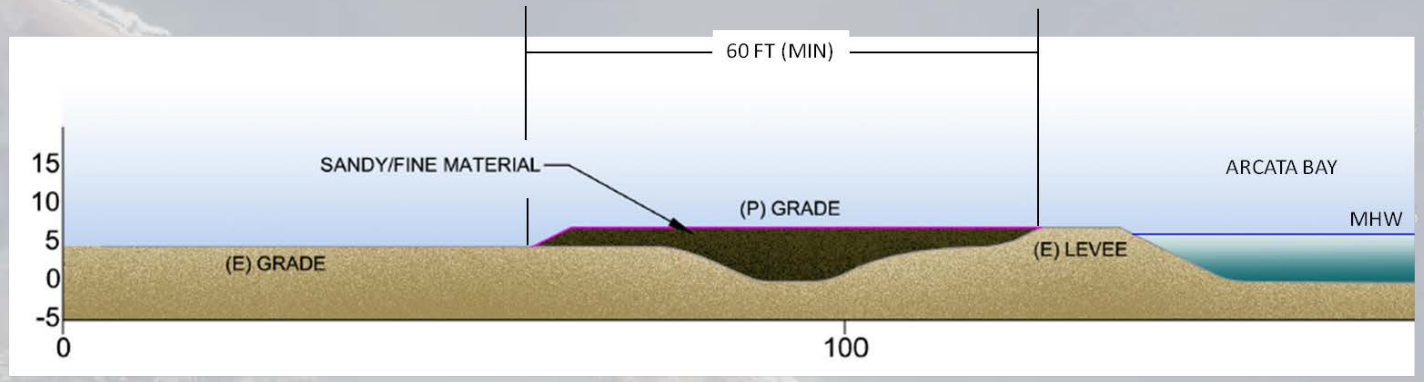
Option 4: Levee Stabilization ***(Need)***

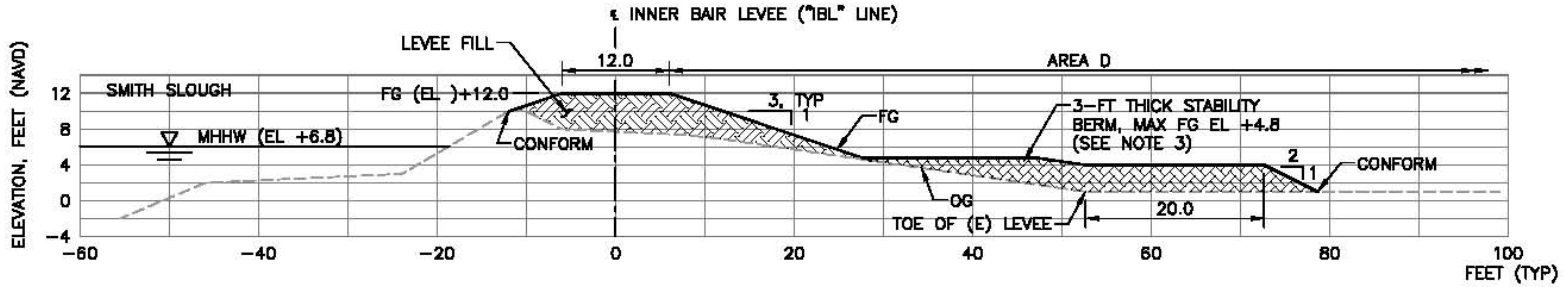
Typical armored levee with borrow ditch

Option 4: Levee Stabilization *(Concept)*

Beneficial Reuse As Shown: 130,000 CY
Need to re-handle from stockpile

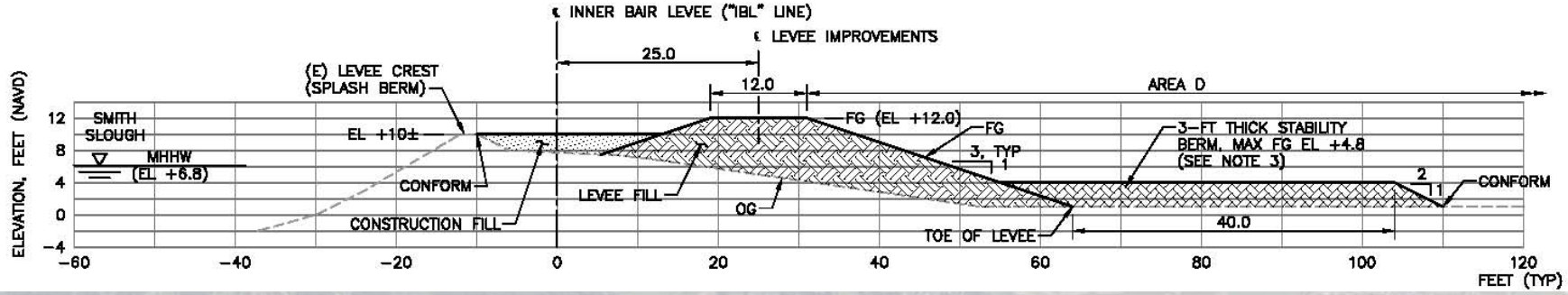
Option 4: Levee Stabilization (Details)





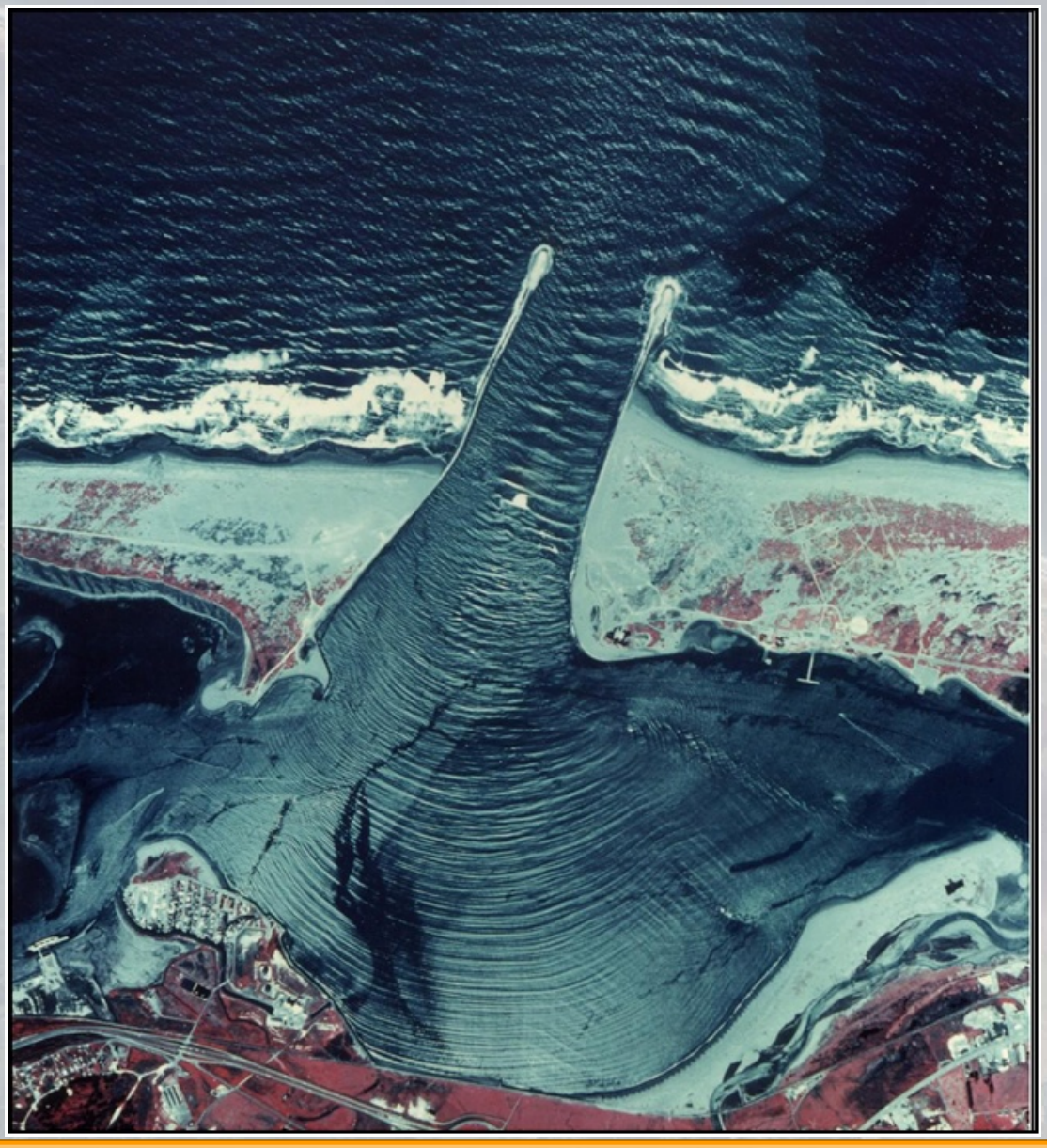
TYPICAL SECTION

C4 C7



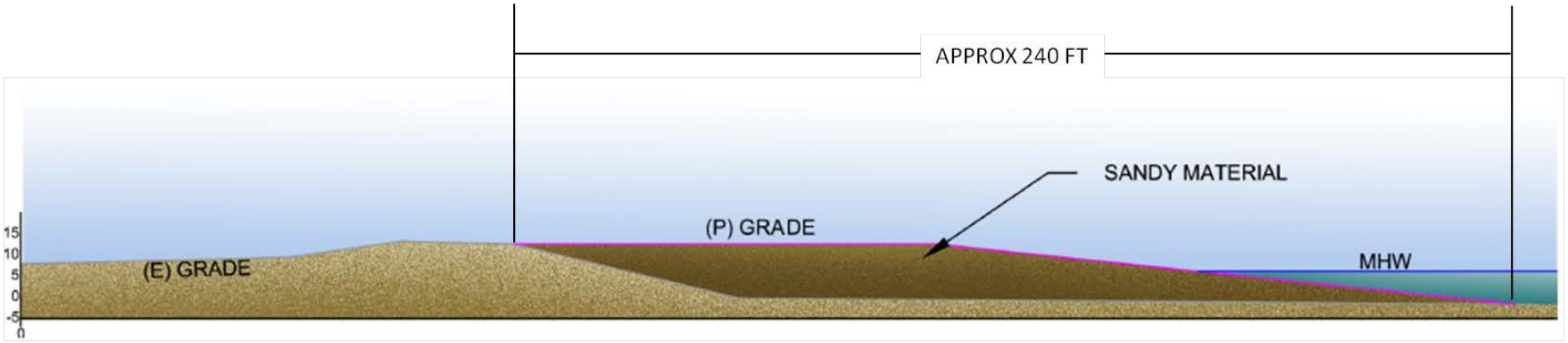
Option 5: Beach Nourishment (King Salmon Vicinity)

Option 5: Beach Nourishment ***(King Salmon Vicinity)***



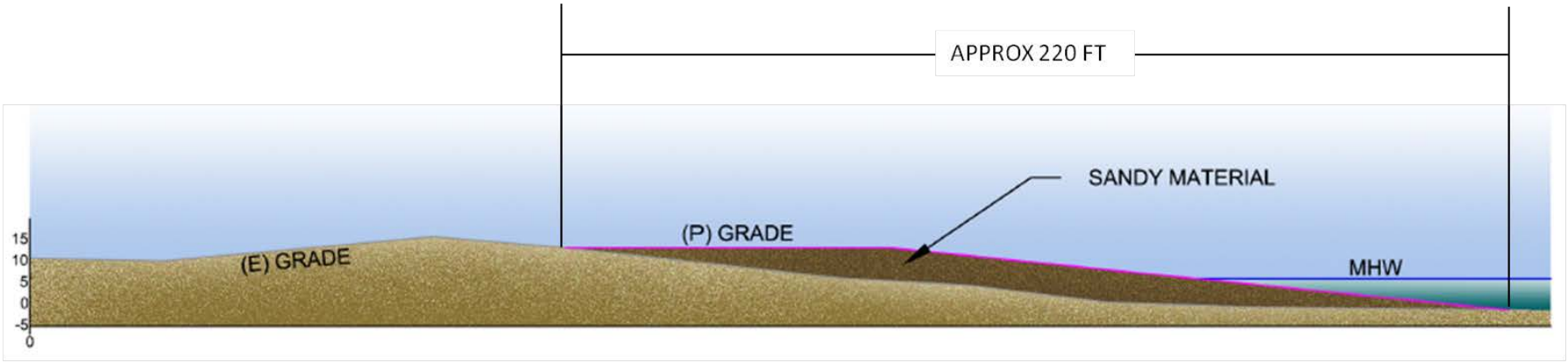
Option 5: Beach Nourishment (King Salmon Vicinity)

Option 5: Beach Nourishment *(King Salmon Vicinity)*



HWY 101

SCALE: 1" = 40'



BUHNE POINT

SCALE: 1" = 40'

! Break !

Implementation Discussion

[Betsy Watson & Adam Wagschal]

CRSMP Governance Structure:

Determine enacting/implementing authority, governance structure; coordination agreements

"CSMW is working closely with the Humboldt Bay Harbor, Recreation, and Conservation District (contact: David Hull) to ensure that the Plan adequately reflects the needs of the region. CSMW's point of contact is John Dingler of the San Francisco District, U.S. Army Corps of Engineer CSMW is working closely with the Humboldt Bay Harbor, Recreation, and Conservation District (contact: David Hull) to ensure that the Plan adequately reflects the needs of the region. CSMW's point of contact is John Dingler of the San Francisco District, U.S. Army Corps of Engineers."

Under the umbrella of the Humboldt Bay Harbor District, the RSM Working Group can determine enacting/implementing authority, governance structure; coordination agreements; mutual cooperation, etc.

Potential Implementation Actions:

1. Conduct "visioning session" with stakeholders to determine both short term and long term needs for 50 year plan. From this meeting form stakeholder working group for each goal.
2. Schedule 1-2 meetings for working groups to share their work with each other.
3. Pull working group reports into a single draft plan and submit to appropriate entities for review and to plug in details and data that they may have.
4. Review feedback, stakeholder group makes revisions before submitting to Harbor District and Coastal Commission.
5. Identify jurisdictional agencies, boundaries and regulatory impediments (if any) within the region [GIS database]

   Federal, State, and local agencies are involved and are considered valuable stakeholders. Jurisdictions are noted as plan develops.
6. Determine Staff requirements and funding for plan development