



Second Stakeholder Meeting 6/16/2022

Willapa Shoreline Erosion Mitigation Master Plan

In Collaboration with :



Detailed Agenda

- › Welcome (Paul Plakinger with Pacific County) 5 min
- › Meeting Etiquette (Dawn Spilsbury with The Watershed Co) 5 min
- › Purpose of the Meeting (Shane Phillips with Moffatt & Nichol) 5 min
- › Recent/Ongoing Erosion Mitigation Efforts (Shane Phillips with Moffatt & Nichol) 5 min
- › Progress Update on Master Plan (Shane Phillips & Younes Nouri with Moffatt & Nichol) 25 min
 - › Data Compilation
 - › Grant Funding
 - › Legislative Outreach
 - › Coastal Processes and Drivers of Erosion
 - › Project Timeline
- › Discussion (All) 10 min
- › Follow up & Action Items (Dawn Spilsbury with The Watershed Co.) 5 min



WELCOME!

ATTENDEES/INVITEES

ENTITY	REPRESENTATIVE(S)
Pacific County	Paul Plakinger, Shawn Humphreys
WECAN & County Planning Commission	Kelly Rupp, Connie Allen
Cranberry Growers	David Cottrell
Community Members	Rebecca Chaffee
Shoalwater Bay Tribe	Charlene Nelson, Earl Davis, Larissa Pfleeger
U.S. Army Corps of Engineers	Chris Behrens, Dave Michalsen, Aurora Deangelis Caban
WA Department of Transportation	Chelsey Martin, Garrett Jackson, Chad Hancock
WA Department of Ecology	George Kaminsky, Henry Bell, Bobbak Talebi
Pacific Conservation District	Mike Nordin
WA Sea Grant	Jackson Blalock
Consulting Team	Shane Phillips, Younes Nouri (Moffatt & Nichol); Dan Nickel, Dawn Spilsbury (Watershed), Sarah Round (Strategies 360), Aaron Porter (Mott MacDonald)

Meeting Etiquette

- › This is a virtual meeting held on Teams
- › Please stay muted to ensure an uninterrupted meeting presentation for all
- › Please use the “chat” feature throughout the presentation to ask your questions and relay your comments
- › When we get to the “Discussion” portion of the meeting, please “raise your hand” and Dawn Spilsbury, of The Watershed Company, the meeting moderator will unmute you
- › The meeting will not be recorded, but notes and slides will be distributed after the meeting

Purpose of Meeting

- › Provide a progress update on the Master Plan
- › **Seek Feedback from Community/Agencies on Various Items**
- › Establish Next Steps and Follow up Action Items

Proposed Study Area – Confirmed



Scope of Work




- › Project Plan of Work
- › Kickoff Meetings
- › Budget/Schedule Updates to County (Progress Report)
- › FEMA Reporting
- › Team Meetings

Progress Update:

- Ongoing Budget/Schedule Updates to County/FEMA
- Internal and External Meetings

Scope of Work



- 
- › Review/Document Historical Data
 - › Identify/Document Data Gaps
 - › Identify/Document Funding Opportunities
 - › Identify/Document Best Management Practices
 - › Review of Data Catalogue by Stakeholders

Progress Update:

- RFI Sent to Stakeholders
- Building Upon Library Developed for Demonstration Project

Data Compilation – Example from WSDOT

<u>Project Title</u>	<u>Mile Posts</u>	<u>Total Funding</u>	<u>Location</u>	<u>Advertisement Date</u>	<u>Operationally Complete</u>
SR 105/Emergent Roadway Embankment Protection	20.15	1,462,883	South of Grayland	11/17/06	06/22/07
SR 105/Washaway Beach - Rock Stockpile for Embankment Erosion Repa	20.08-20.12	114,974	North Cove	10/25/12	12/12/12
SR 105/North Cove to Washaway Beach Erosion Protection 2015	20.00 - 20.50	875,595	Pacific County	01/13/15	02/18/15
SR 105/North Cove Vicinity - Erosion Protection 2017	19.58-20.58	3,557,771	Washaway Beach	06/26/17	04/02/18
SR 105/Embankment Erosion Repair	20.78-20.86	1,269,989	South of North Cove	09/13/21	04/30/22
SR 105/Washaway Beach Vicinity - Slope Protection	19.90-20.40	1,206,875	West of Tokeland	10/03/22	12/30/22
SR 105/North Cove Vic - Coastal analysis for flood/erosion risk mgmt.	19.40 - 20.80	65,572	N Cove to Shoalwater	Funding Start Date: 1/17/2017	
		36,948,936			

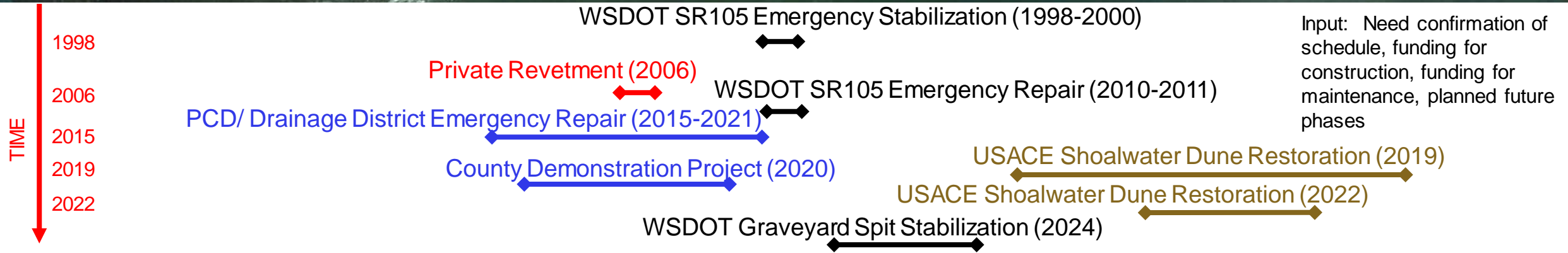
Purpose of Data Compilation is to catalogue available types of data, not necessarily access/download all data

As an example, for each of the above WSDOT erosion mitigation efforts, there is associated documents

Recent/Ongoing Erosion Mitigation Efforts

- › WSDOT
 - › NOAA/NFWF Grant Application for Graveyard Spit Stabilization Submitted, June 2022
 - › Proposal for using WSDOT Chronic Environmental Deficiency (CED) Site Funding Submitted, June 2022
- › US Army Corps of Engineers
 - › The Shoalwater Bay Dune Restoration Project Construction Kicked Off, June 2022
 - › West Study Area CAP 103 – Pending?
- › Pacific County Drainage District No. 1
 - › Sand/Gravel Material from Westport Stockpiled to be Used in the Dynamic Revetment
- › WA Dept of Ecology
 - › Resilience Recommendations (includes funding for state-wide shoreline monitoring) submitted to Governor's Office, June 2022
- › County
 - › Ecology SLR Competitive Grant

Historic & Ongoing Erosion Mitigation Efforts (To be Confirmed)



Funding Opportunities - Appendix

Grant Agency	Name	Grant Limit	Purpose (Restoration, Acquisition, ...)	Competition	Available	Match Requirement
FEMA	Hazard Mitigation Grant Program (HMGP)		post-disaster, all hazards, plan	Statewide	After Presidential d	12.5% to 25%
FEMA	Building Resilient Infrastructure Communities (BRIC)	\$1 million per applicant -	Pre-Disaster, All Hazards, Plan	Nationally	Annually	25% (10% for tribes/in
FEMA	Flood Mitigation Assistance (FMA) Grants	Varies by use. \$50	Pre-disaster, flood hazard onl	Nationally	Annually	0 to 25%
FEMA	Cooperating Technical Partners (CTP) Program		Flood hazard mapping	Regional	Annually	0 percent
FEMA	Pre-Disaster Mitigation Program (Now Replaced with BRIC)					
WA Ecology	Floodplains by Design	Achievable in thre	Reduce flood risk and restore	State	Bi-Annually	20% (0% for economic
WA Ecology	Flood Control Assistance Account Program (FCAAP)	No limit but antici	creation or updating of Comp	State	Bi-Annually	20% to 25%
NOAA/NFWF	National Coastal Resilience Fund	\$125,000-\$5,000,	Seeks to restore, increase and strengthen natural infrastructure to protect coastal com			
NOAA/NFWF	Regional Coastal Resilience Grants Program		roads, bridges, and major projects, highway safety, waterways, resiliency			
NOAA/NFWF	America the Beautiful Challenge 2022	Varies by use. \$200k - \$1 million for State, Territ		Nationally	Expected Annually	Varies by Fund: 0-50%
DOT	Infrastructure Investment and Jobs Act (IIJA) 2022					
USACE	Continuing Authorities Program (CAP) Section 103	\$5 million	shoreline protection of public	Nationally	continuously	Depends on use and p
State Legislature	Washington State Legislature (Washington State Conservation Commission)-shellfish program		conservation of shellfish	State		
WA RCO	Aquatic Lands Enhancement Act (ALEA)			State		
WA RCO	Washington Coast Resiliency and Restoration Initiative (WCRRI) (possible but not request	\$2 million	Acquisition, Restoration, Plan	State		None
State Legislature	Legislature line item once you need over a certain amount - Commerce capital project list (House originates)					
USFWS	North American Wetlands Conservation Act Standard Grants Program	\$100,000- \$1,000	Conserve wetlands and associ	National	Annually	1:1 nonfederal matchi
EPA	NEP Coastal Watersheds Grant Program	\$75,000- \$250,00	Projects must address one or	National	Annually	
USFWS	North American Wetlands Conservation Act Small Grants Program	Up to \$100,000	Supports public-private partn	National	Annually	1:1 nonfederal matchi
NFWF, WHC	Five Star and Urban Waters Grant Program	Range from \$20K	habitat restoration, stormwat	National	Annually	meet or exceed 1:1

Input? Need concurrence on listing of potential funding for documentation

Funding Opportunities - Summary

Federal



US Army Corps of Engineers®



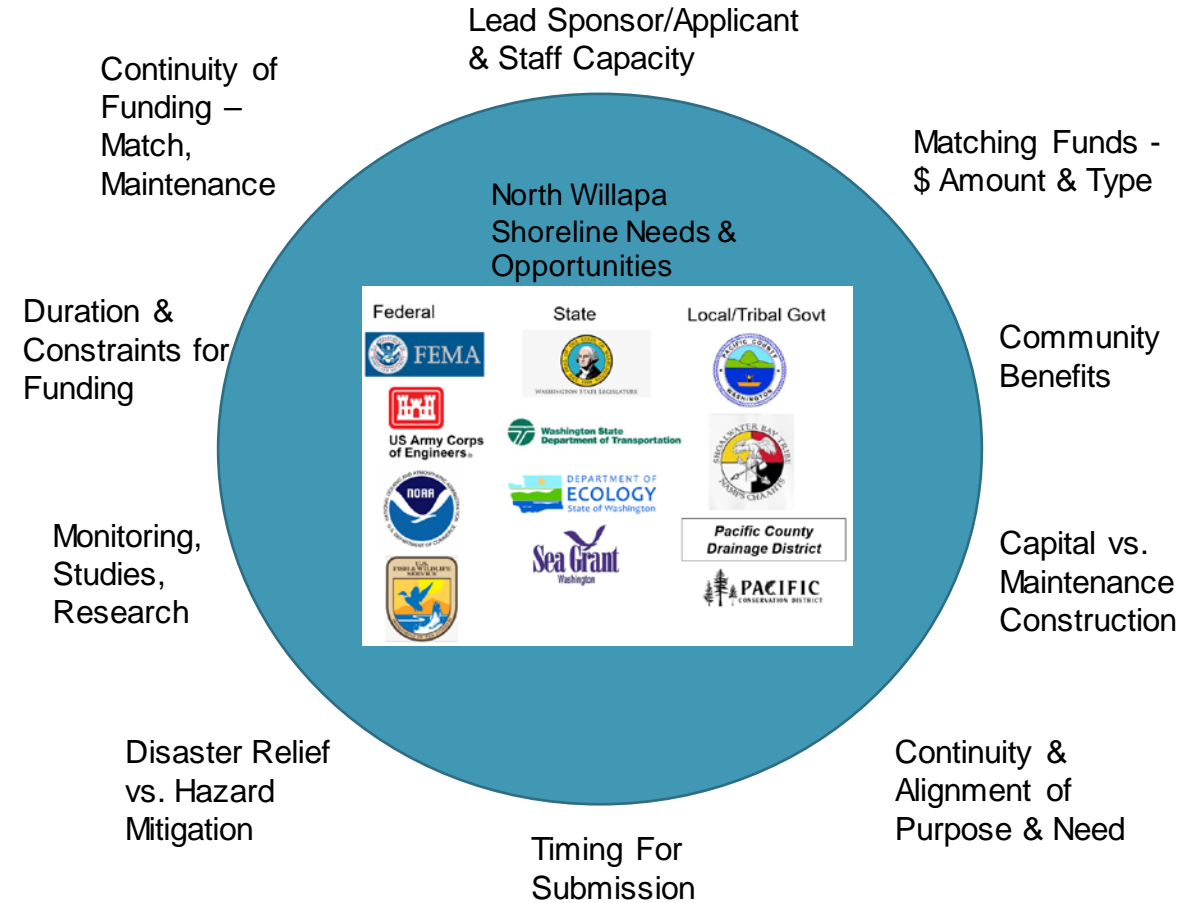
State



Local/Tribal Govt



Graphical Matrix



Request for Information (RFI)

- › Previous/ongoing erosion mitigation efforts
- › Lessons learned from previous efforts
- › Sources of funding and details of funding programs utilized before

Scope of Work



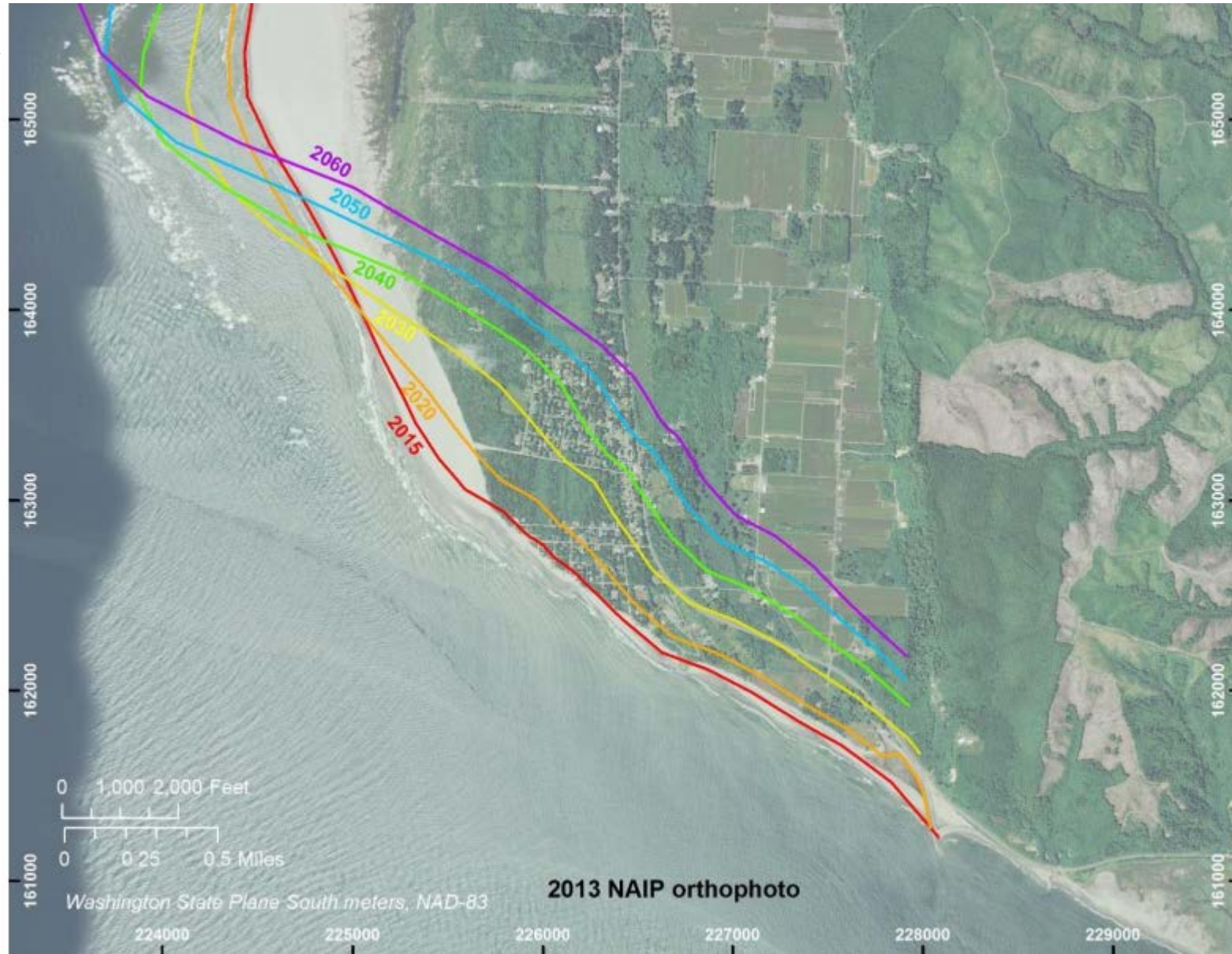
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- › Summarize Coastal Processes
 - › Revisit Shoreline Reach Development
 - › Review Coastal Analysis by Stakeholders

Progress Update:

- Targeted Outreach to Stakeholders
 - Building on Demonstration Project
- Formulating summary narrative & graphics

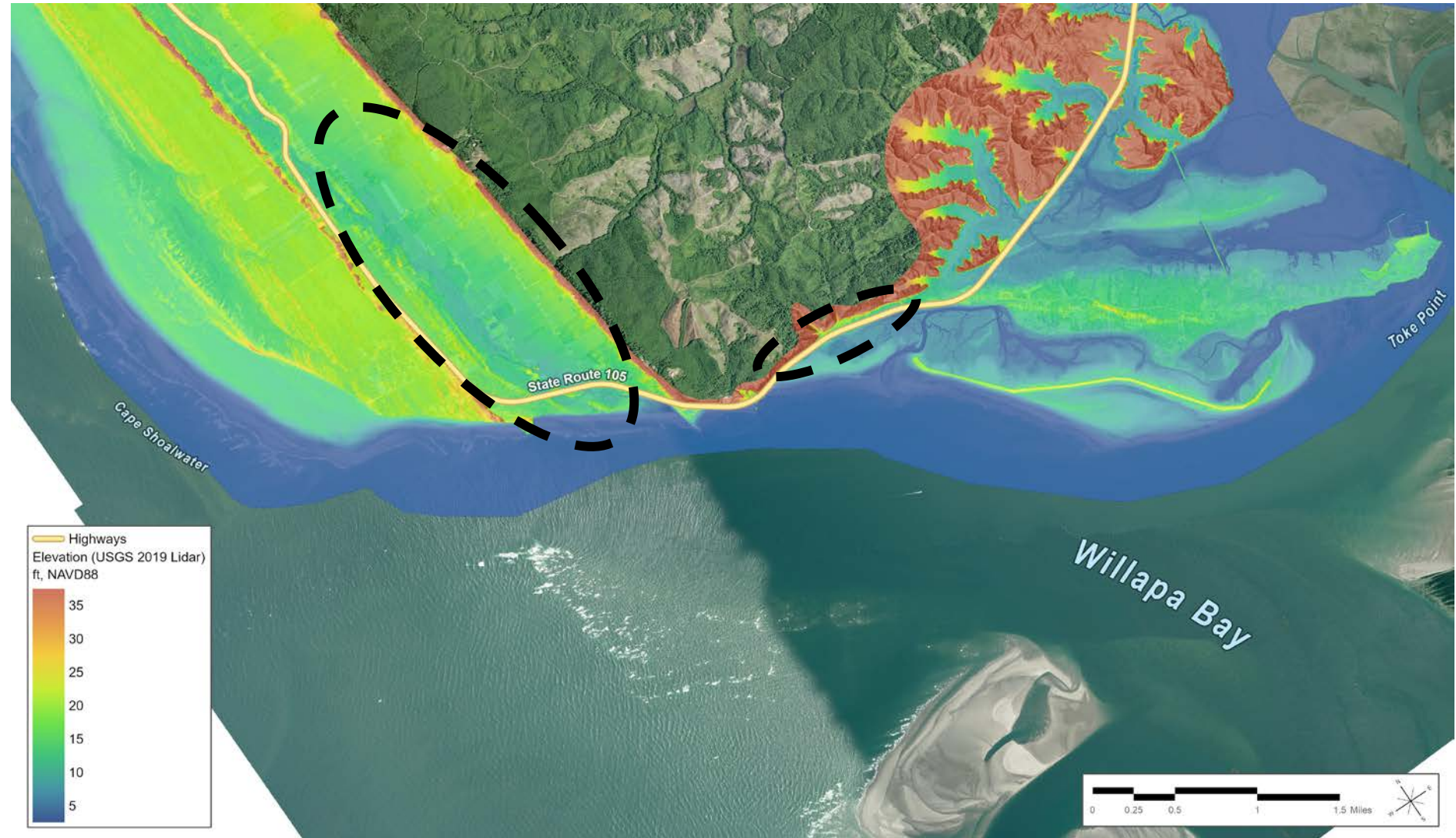
Vulnerability – Erosion Hazard

Projections along eastern boundary of project area – graveyard spit and east?



Vulnerability – Low Lying Areas & Flooding

- › Agricultural lands are in low-lying areas susceptible to flooding without tide gate
- › Low elevation highway subject to overtopping and debris



Vulnerability – Flooding Hazards & Risks

Agricultural lands are in low-lying areas exposed to extensive flooding if the tide gate is damaged

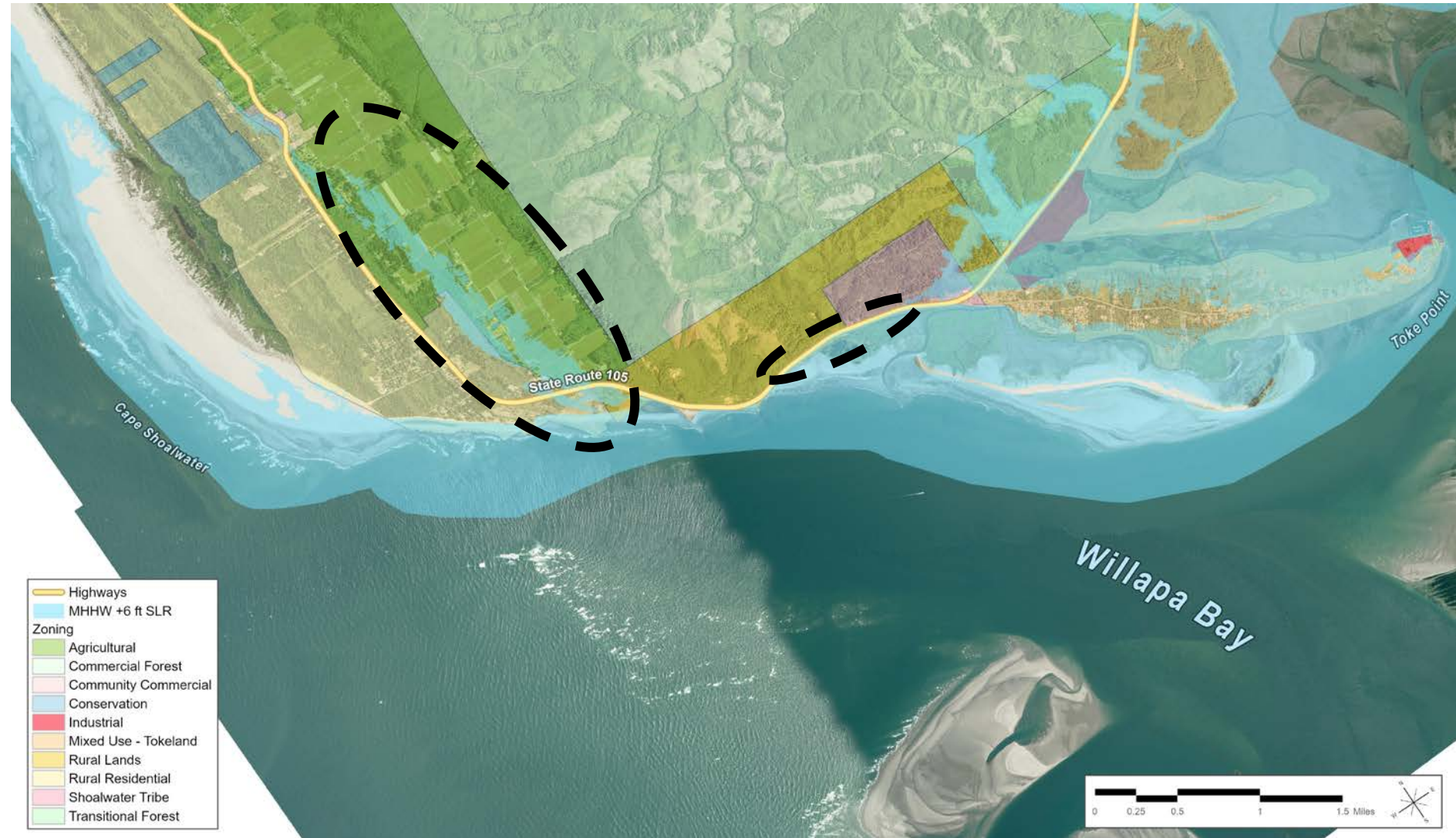
Working on a graphic that will help showcase the vulnerability and risks

West & Central Areas have combination erosion and flooding risks w/linkages

Infrastructure & Property uses vulnerable to inundation

Outline additional analysis needed; hydrologic flooding with storm tides w/ SLR & Climate Change Considerations

Develop a graphic that outlines these combination of hazards



Coastal Processes / Drivers of Erosion

- Developing graphic & narrative to summarize
- Discussions with Ecology, USACE, WSDOT, Diking District
- Follow up to gather input and comments



Scope of Work



- › Develop Matrix of Erosion Mitigation Options
- › Develop Cost Estimates
- › Develop Maintenance Requirements
- › Develop Contingency measures
- › Assess Impact of Mitigation measures on adjacent shoreline
- › Review mitigation measures with stakeholders

Progress Update:

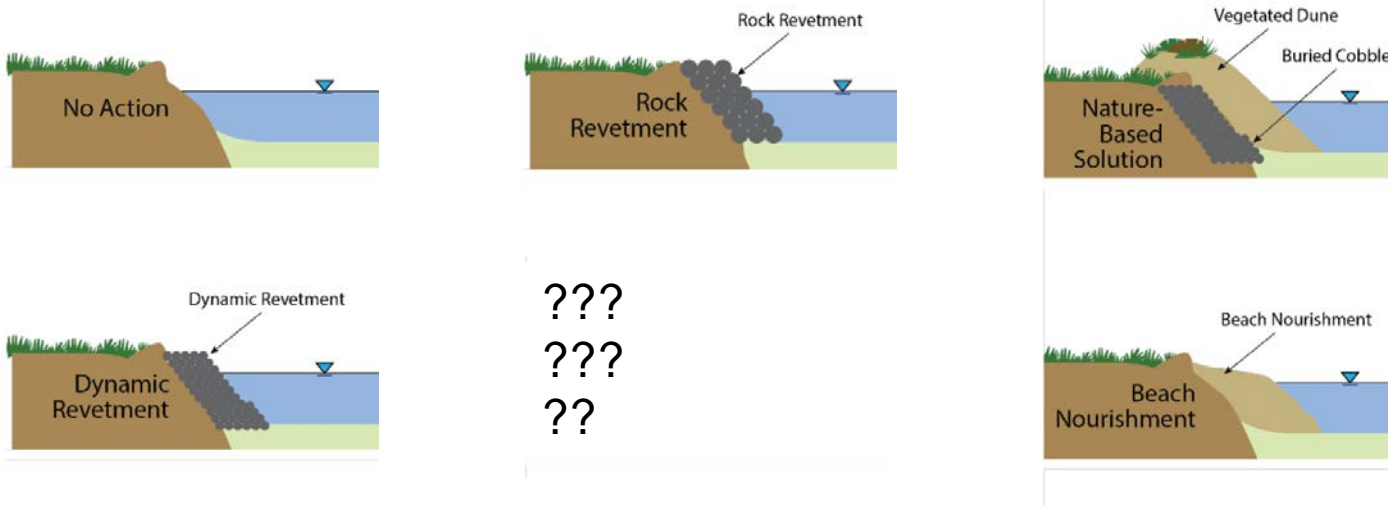
- Information provided by Stakeholders being Compiled
- Building on Demonstration Project

Erosion Mitigation Options – by Reach



Erosion Mitigation Measures – Current/Planned

Alternative	Risk of Further Shoreline Erosion	Adverse Impact on Natural Environment	Probable Opinion of Construction Cost	Mitigation Requirements to Secure Regulatory Permits	Vulnerability against SLR	Maintenance Requirements
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Terminology

- Nature Based Solution - FEMA
 - Design with Nature - USACE
- Commonality of terms with definition
 Tailor terminology for funding opportunities – can be very important to reviewers who don't have the technical knowledge

Input:

- Other alternatives considered in the past or in the future that are not listed but should be documented and their location?
- Terminology – Nature Based Solution? Other?

Deliverable	Mark "X" if deliverable will be done under this activity
Summary of activities that will increase flood risk awareness and subsequent or related mitigation actions (<i>Catalog of current and planned mitigation activities</i>)	☒

Current Approach by Reach

- › Reach 1
 - › Short Term – Dynamic Revetment
 - › Long Term – TBD (outer channel movement)
- › Reach 2A
 - › Dynamic Revetment at existing shoreline
- › Reach 2B
 - › TBD; depends on location at ditch, groin and beach nourishment
- › Reach 2C
 - › Dynamic Revetment & Nature Based Design along outer shoreline
- › Reach 3A
 - › Nature Based Design w/ dynamic revetment
- › Reach 3B
 - › TBD

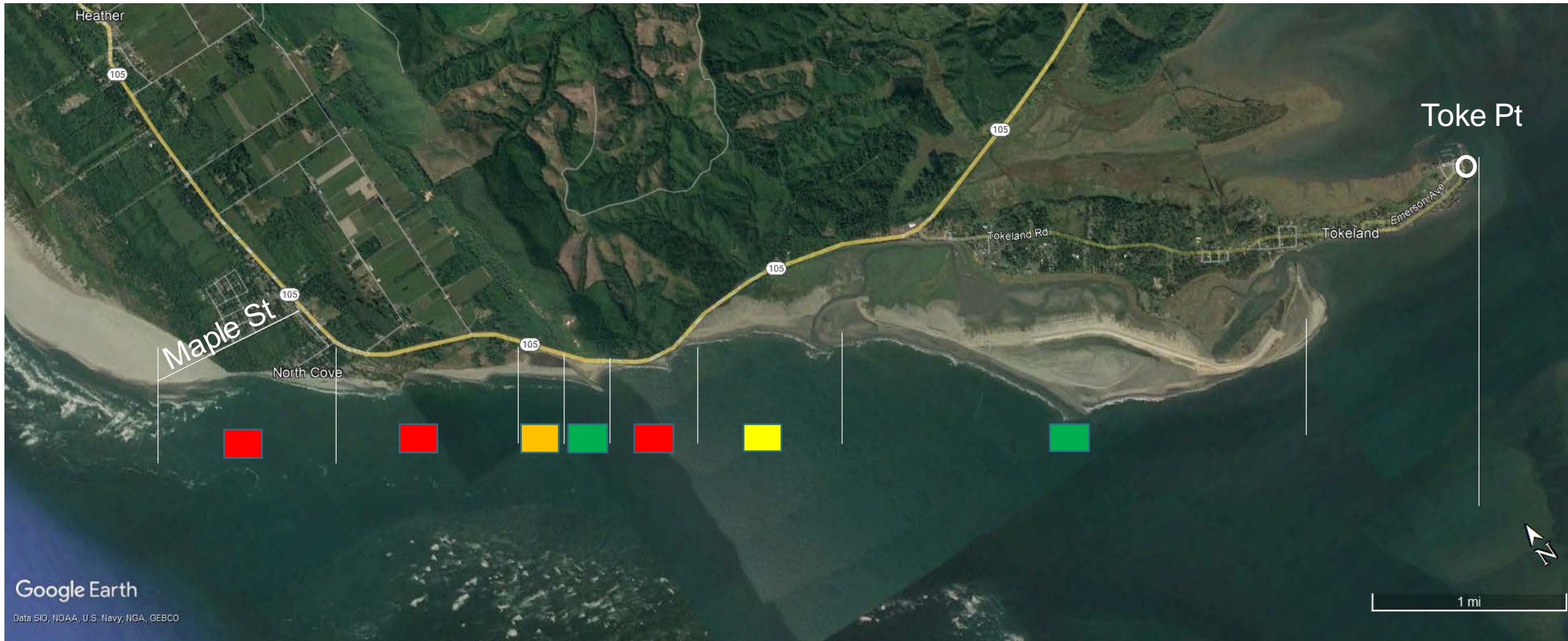


Input?

- Will need concurrence on reaches and the current best available information on approach for erosion hazard reduction; build consensus. Upcoming meetings to discuss.
- What is needed to build consensus?

Erosion Mitigation – Hazard Exposure

-  Long Term Solution Installed
-  Long Term Solution Funded; Needs to be constructed
-  Short Term Solution Installed; Needs Long Term Solution Funded
-  Short Term Solution without continued funding; Needs Long Term Solution Funded



Dynamic Revetment (Nature Based Solution)

Storyboard the dynamic revetment & nature-based solution – graphic for master plan

Variability of seasonal conditions, purpose, function relative to the coastal hazards and risks

Established known solution

South Jetty
Dynamic Revetment



Changes over Time
2013-2021



Scope of Work



Progress Update:

- Continued Dialogue with Stakeholders; assists with developing vision and outcomes
- Identifying shared values/desires

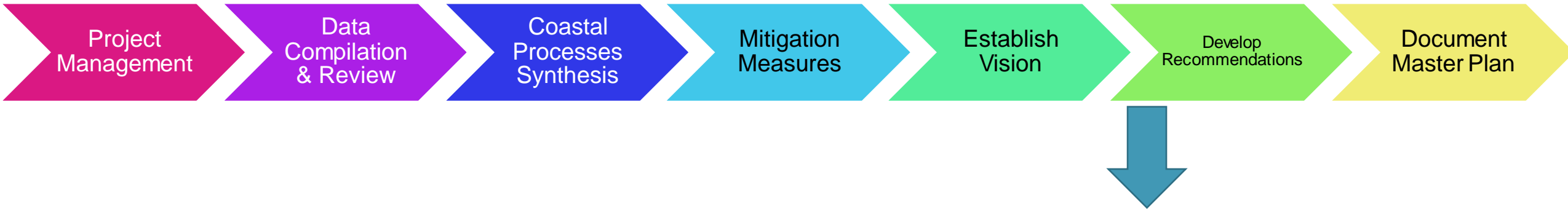


- › Develop Draft Vision for Master Plan – Consensus Building for System wide solution
- › Review with stakeholders

Input:

- More outreach meetings to stakeholders; MN Team will be reaching out for setting up discussions.

Scope of Work



Progress Update:

- Document common needs/desires
- Identifying Data Gaps

- › Develop Recommendations for Research
- › Recommendations for stakeholder review
- › Outline funding pathways

Data Collection, Monitoring, Research, Analysis Needs

- › Hydrographic Surveying – what, where, why?
 - › Monitoring of dike and tidal channel
- › Nearshore Coastal Morphology Analysis Research on longshore sediment transport and bypass around groin
- › Tidal Channel Morphologic Analysis – using data collection and modeling, develop improved understanding of tidal hydrodynamics and offshore shoals to improve forecasting of future changes to the beach and to identify longer term remedies for Reach 1 and 3B.
- › Surveying Dynamic Revetment – Better refine long term maintenance requirements
- › Nearshore wave data – better refine dynamic revetment design and long-term maintenance requirements
- › Flood Hazard Analysis for drainage district area under loss of tide gate scenario – impacts analysis and infrastructure at risk. Hydrologic + Coastal Storm Surge + SLR/Climate Change Scenario

These relate to the coastal processes and mitigation measures by reach....what is needed to implement those from a research perspective

What additional information is needed to refine the design concept

Legislative Outreach – Primer on One-Pagers

- › Having a 1-Pager for Legislative Outreach
- › Framework for a 1-Pager
 - › Provides the Background
 - › Quantifies the Potential Impacts
 - › Has a Specific Ask
 - › Timing - September/October



THE GOAL
Permanently protect 21% of the state's land area or 673,210 acres by 2023, of which 10% of the land is to be held by the state, and 11% by land trusts, towns, or water authorities ("conservation partners").

THE STATUS
As of 2020, a total of approximately 513,038 acres have been acquired for conservation by the state and its conservation partners – approximately 16% of the state's land area. More than 200,000 of these acres have been protected by Connecticut's community of over 130 land trusts.

WHAT'S NEEDED
To reach Connecticut's goal, the state and its conservation partners will need to acquire over 19,500 and 33,800 acres per year, respectively.

- State Conservation Funding Programs**
- Open Space and Watershed Land Acquisition Grant Program** (CGS Section 7-131d et. seq.)
- Main source of state funding that has enabled land trusts, towns, and water companies to permanently protect forestland, farmland, and open space for conservation
 - Funded by bonding and through the Connecticut State Bond Act
 - Grants typically cover 50 to 75% of the cost of acquisition
 - Since the program's inception in 1986, the state has supported the acquisition of 36,400 acres in 13 towns.
- Recreation and Natural Heritage Acquisition Program** (CGS Section 23-74 et. seq.)
- Primary vehicle of Connecticut's Department of Energy and Environmental Protection (DEEP) for acquiring state lands for parks, forests, wildlife, fisheries, water access, and natural resource management areas
 - Funded by bonding
 - DEEP has acquired over 49,000 acres under this program since its inception in 1986

Funding Pathways – Timing & Scope

- › State Legislative Process

- › Governors Office Outreach – Sept to Nov
- › Legislative Outreach – Sept to Dec
- › Legislative Process – Jan to June



- › Executive Summary – September 2022
- › Draft Master Plan – December 2022
- › Final Master Plan – February 2023

- › Federal Funding

- › FEMA/EMD
 - › September
 - › January

- Outline importance of leveraging both state and federal dollars – both directions.
 - State Investment leads to Federal Interest
 - Federal Investment leads to State Interest
- Coordinated efforts on similar goals and addressing as an overall reach perspective to demonstrate mutual benefit

Scope of Work

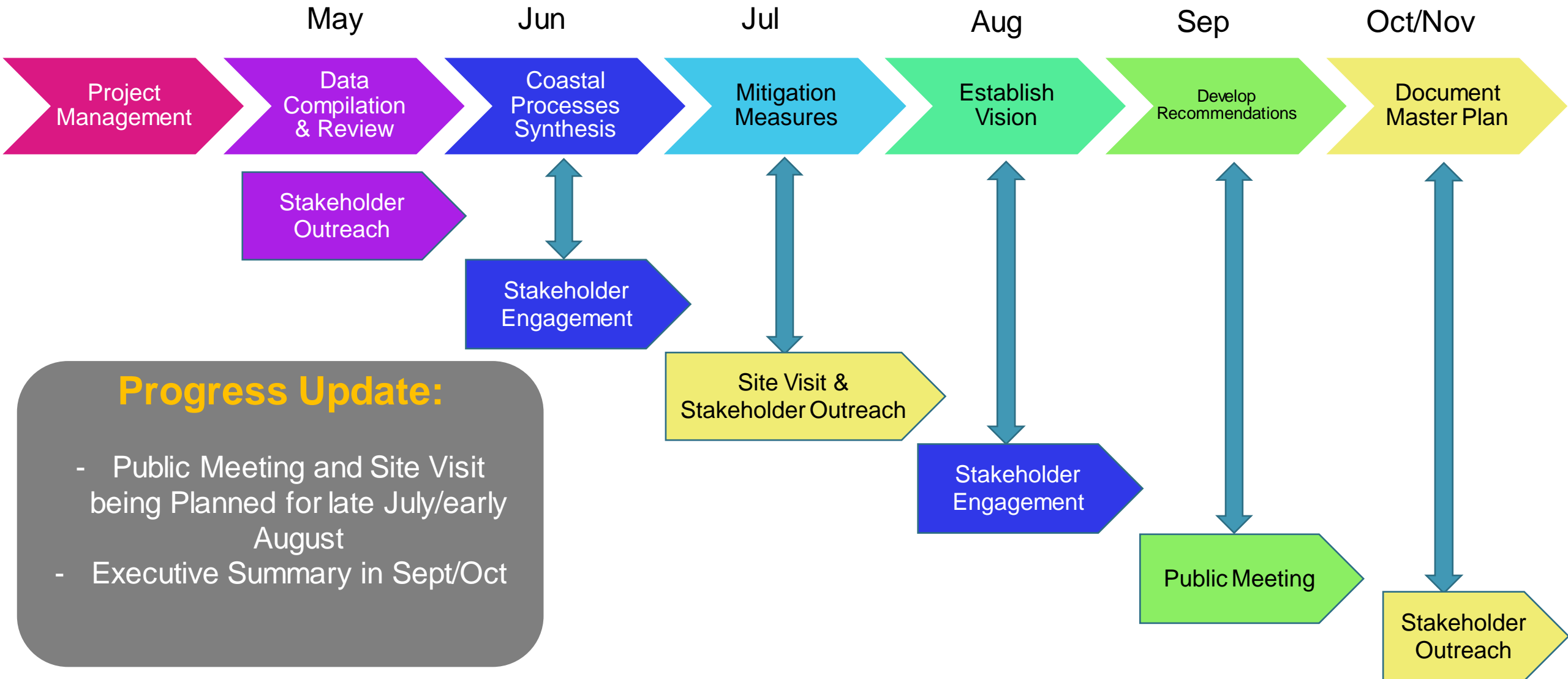


Progress Update:

- Keeping end-goal in mind

- › Executive Summary
- › Introduction
- › Project Needs, Goals, and Criteria
- › North Willapa History, Coastal Processes Setting & Erosion Protection Plans Summary
- › Stakeholder & Public Outreach Results
- › Master Plan Recommendations
- › Master Plan Implementation Strategy
- › Cost Estimation & Benefits
- › Appendices

Schedule for Implementation



Action Items (To be Determined)

- › Consultant Team to send out the meeting material within two weeks from the kickoff meeting
- › Consultant Team to continue reaching out to critical stakeholders to document existing information
- › Consultant Team to schedule a public meeting (in person) for late July/early August within next 2 weeks
- ›

Discussion – Master Plan

To ensure an uninterrupted meeting for all to hear, please use the “raise your hand” feature and the meeting moderator, Dawn Spilsbury, of Watershed, will unmute you. Thank you!



Thank you

Primary Points of Contact:

Pacific County:

- Paul Plakinger pplakinger@co.pacific.wa.us 360-875-9334

Moffatt & Nichol:

- Shane Phillips sphillips@moffattnichol.com 206-501-2317
- Younes Nouri ynouri@moffattnichol.com 206-501-2320