



ESPB Study

January 23, 2019

East San Pedro Bay Ecosystem Restoration Feasibility Study

Long Beach, CA

Sustainable City Commission Update

January 23, 2020

CITY OF
LONG BEACH



US Army Corps of Engineers
BUILDING STRONG®



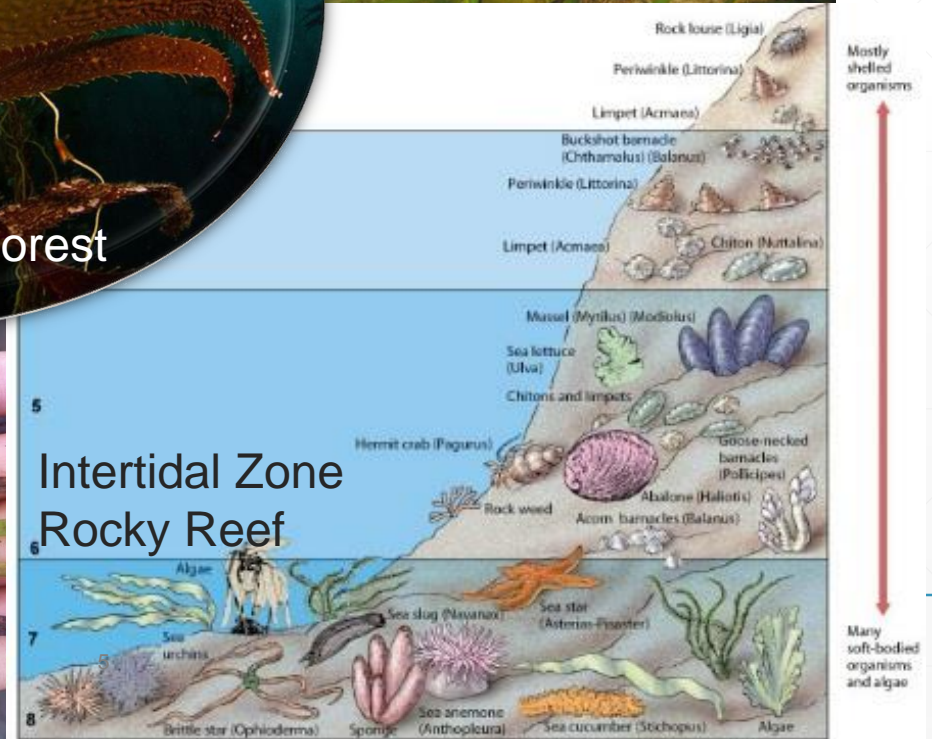
Presentation Outline

- ▶ Background - Study Overview & Formulation
 - Study Area, Goal & Objective
 - Constraints, Opportunity Zones, & Measures
- ▶ Last Update October 25, 2018
 - Preliminary Alternatives, Wave Modeling, Hydrodynamic Modeling, Conceptual Cost Estimates, Schedule Assessment, HEM, CEICA, Final Array
- ▶ Progress to Date
 - Navigation Study
 - Additional Breakwater Wave Modeling
 - TSP Milestone
 - Release of Draft IFR/EIS-R

Project Area



Existing Habitat Types



Study Goal & Objective

Goal

Restore and improve aquatic ecosystem structure and function for increased habitat biodiversity and ecosystem value within the project area.

Objective

Restore aquatic habitat such as kelp, rocky reef, coastal wetlands and other types historically present in San Pedro Bay of sufficient quality and quantity to support diverse resident and migratory species.



Planning Constraints and Considerations

Constraint 1: Avoid negative impacts to U.S. Navy's operations including activities in support of national security and other missions.

Constraint 2: Do not significantly reduce operational capacity for the ports, THUMS oil extraction islands or other existing maritime operations.

Constraint 3: Do not allow for infilling any of the energy island borrow pits located within the ESPB boundary.

Consideration 1: Minimize impacts to known major utilities or navigation channels and anchorages.

Consideration 2: Avoid increases in shoreline erosion, wave related damages, and coastal flooding to existing residences, public infrastructure, marinas, existing jetties, other structures, and recreational beaches.

Consideration 3: Minimize impact to flood risk management operations on the Los Angeles River.

Consideration 4: Minimize vulnerability of coastal areas to accelerating sea level rise.



Restoration Opportunity Zones



Eelgrass



Rocky Reef



Sandy Island



Coastal Wetland



Kelp



Preliminary Array of Alternatives

Kelp Restoration Plan - Alt. 2

Type

Kelp - BW

Rocky Reef - Nearshore

1. *Journal of the American Medical Association*, 1997; 277: 1001-1005.

Reef Restoration Plan - Alt. 4A

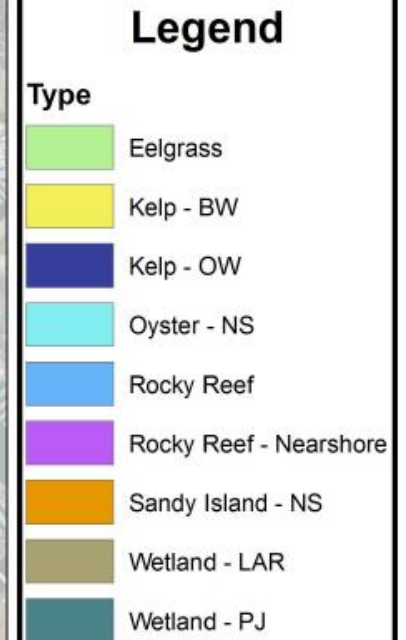


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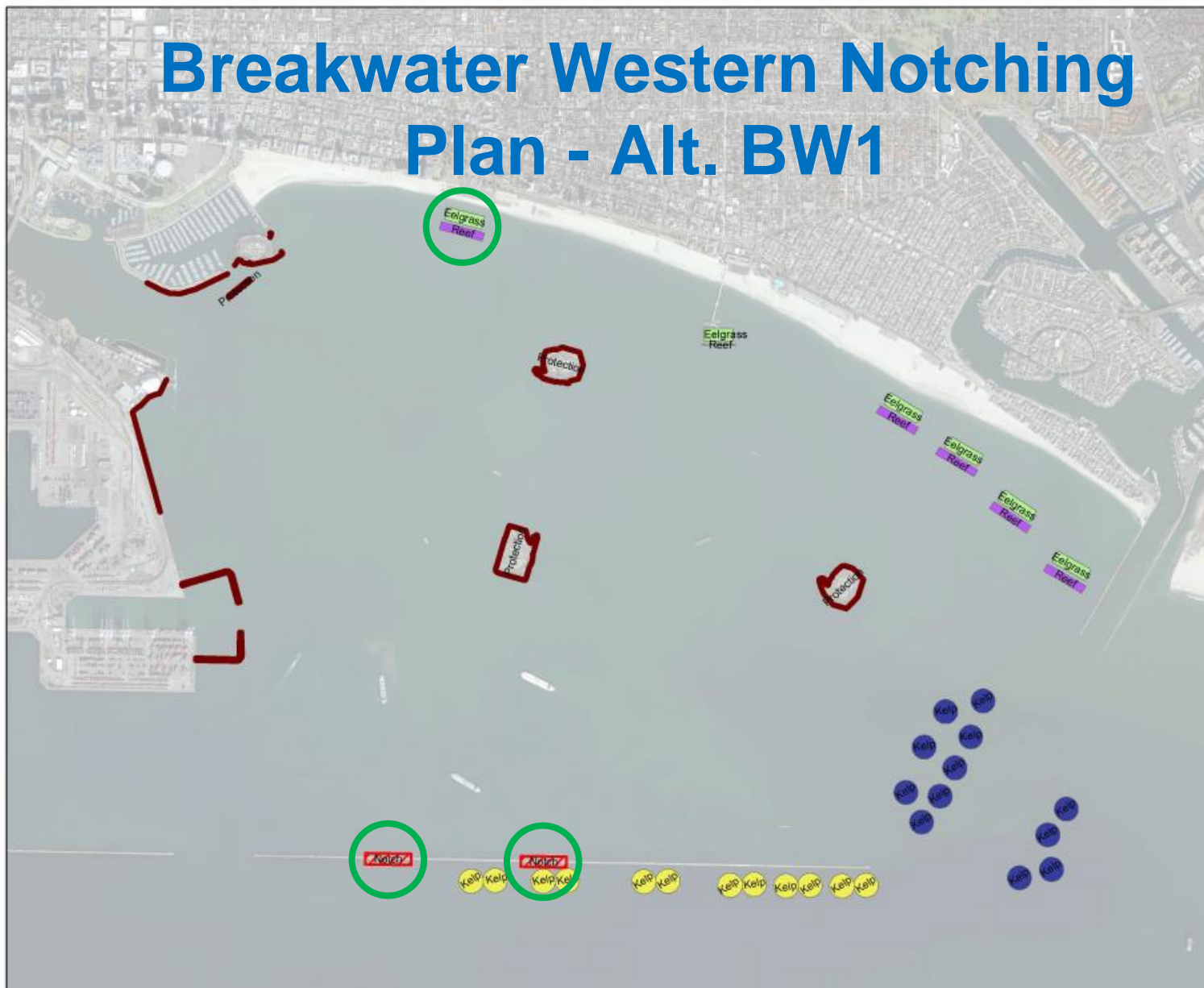
Type

- Eelgrass
- Kelp - BW
- Kelp - OW
- Rocky Reef
- Rocky Reef - Nearshore

Scarce Habitat Restoration Plan - Alt. 8



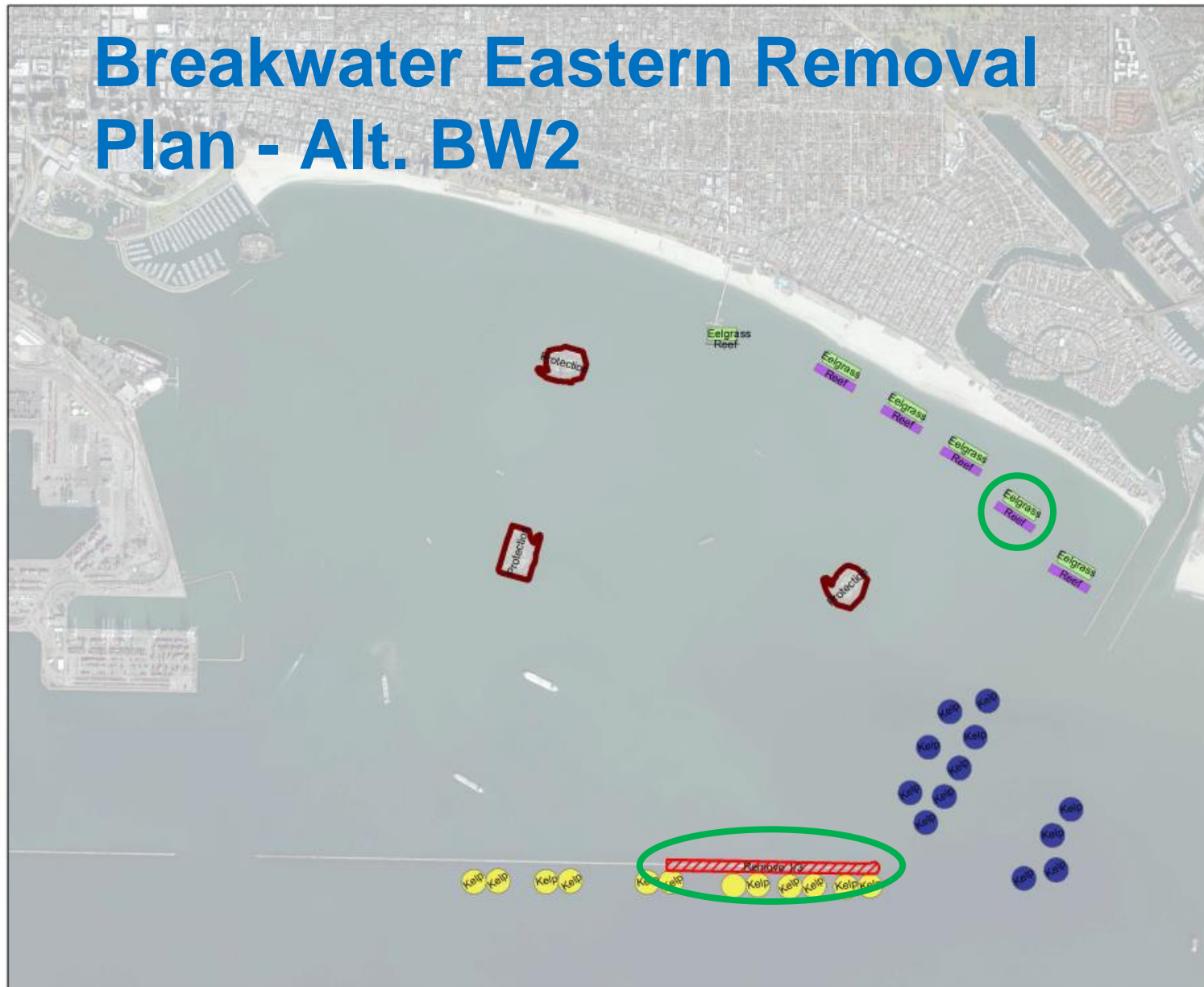
Breakwater Western Notching Plan - Alt. BW1








Legend

- Breakwater Mod.
- Eelgrass
- Kelp - BW
- Kelp - OW
- Rocky Reef - Nearshore
- Protection Measures

Breakwater Eastern Removal Plan - Alt. BW2



Legend

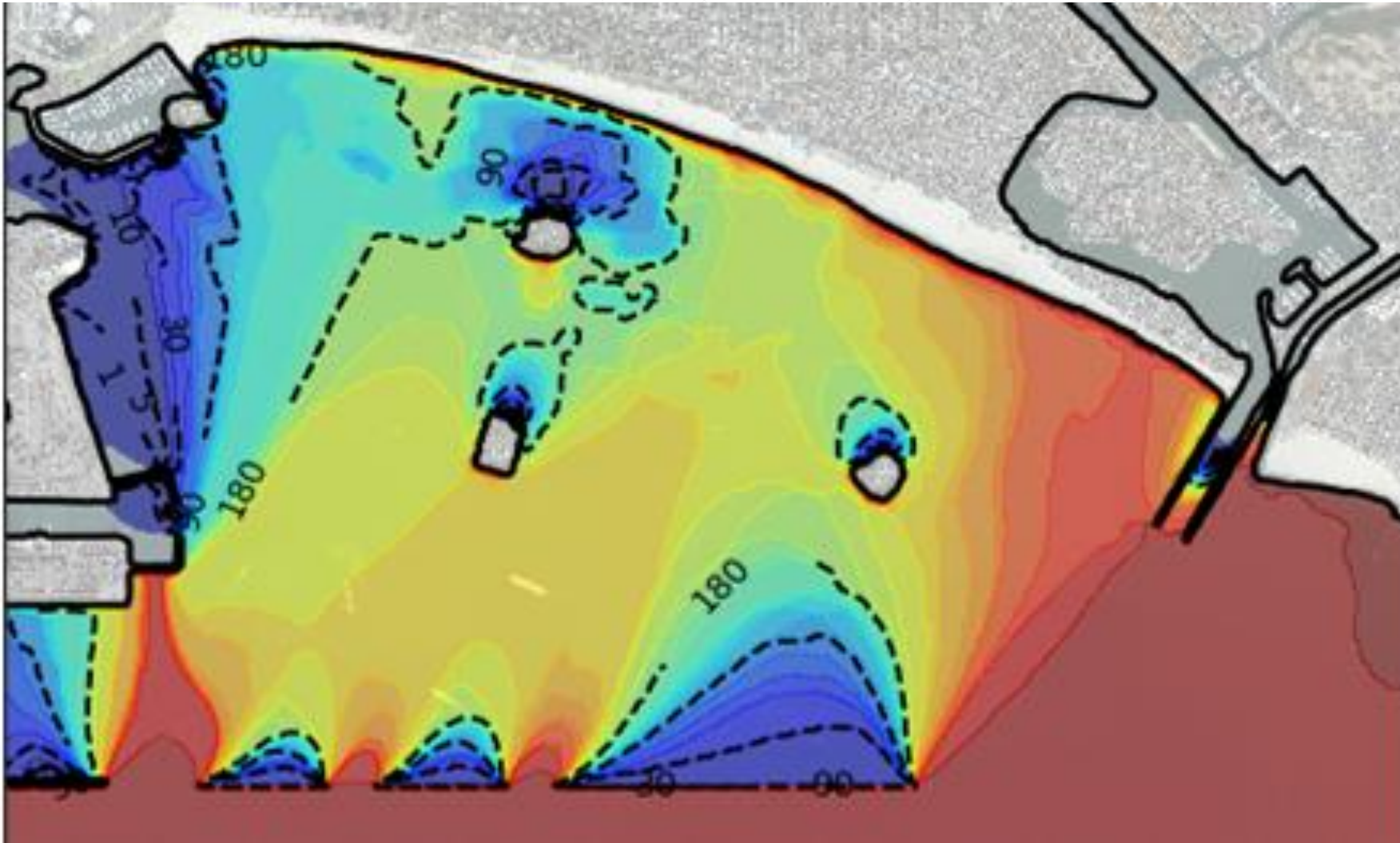
-  Breakwater Mod.
-  Eelgrass
-  Kelp - BW
-  Kelp - OW
-  Protective Measures
-  Rocky Reef - Nearshore
-  Sandy Island - NS

Progress Since Last Update

- ▶ Navigation Study
 - Analyze impacts to Navy, Port, Anchorage Points

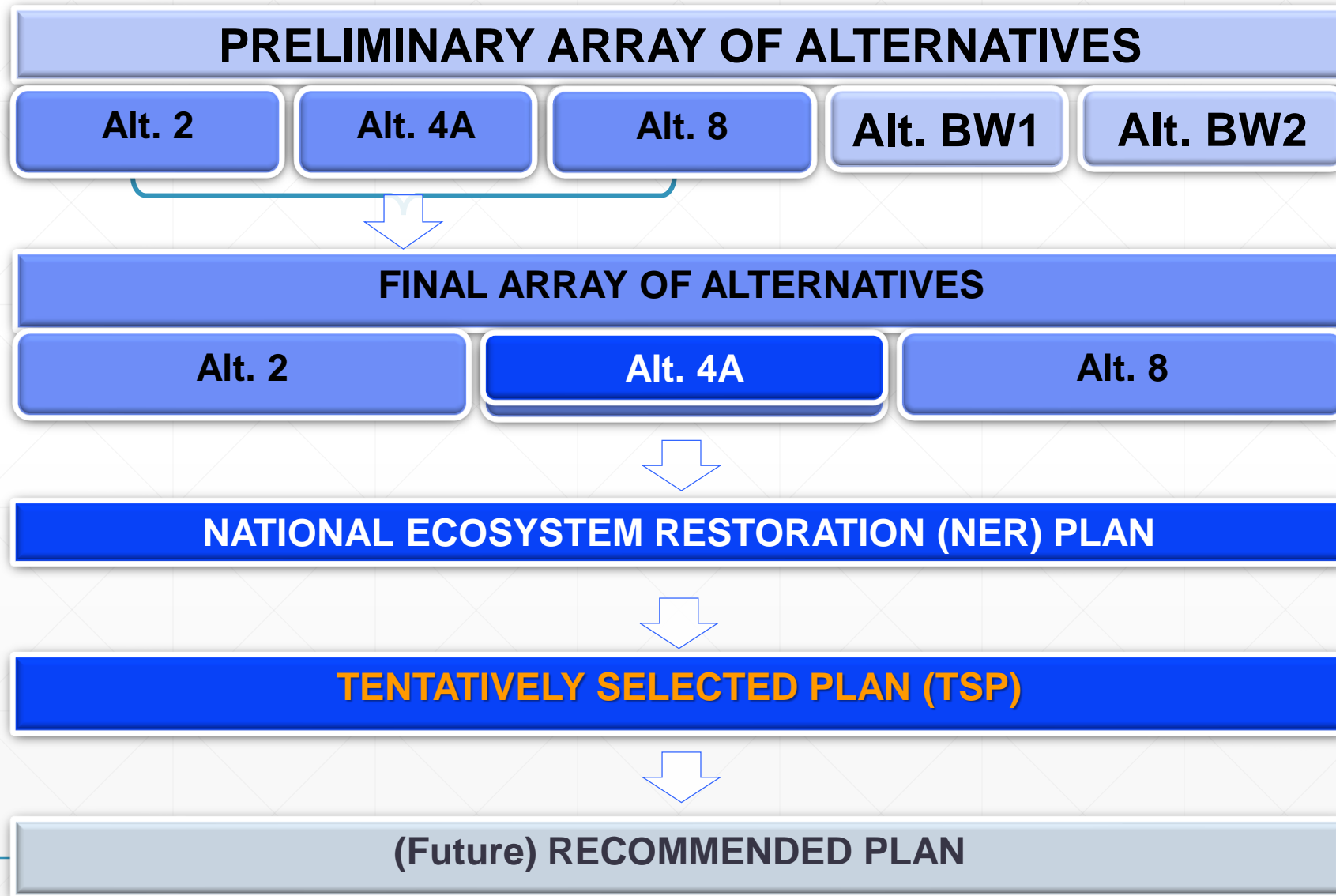


Breakwater Modification Wave Modeling

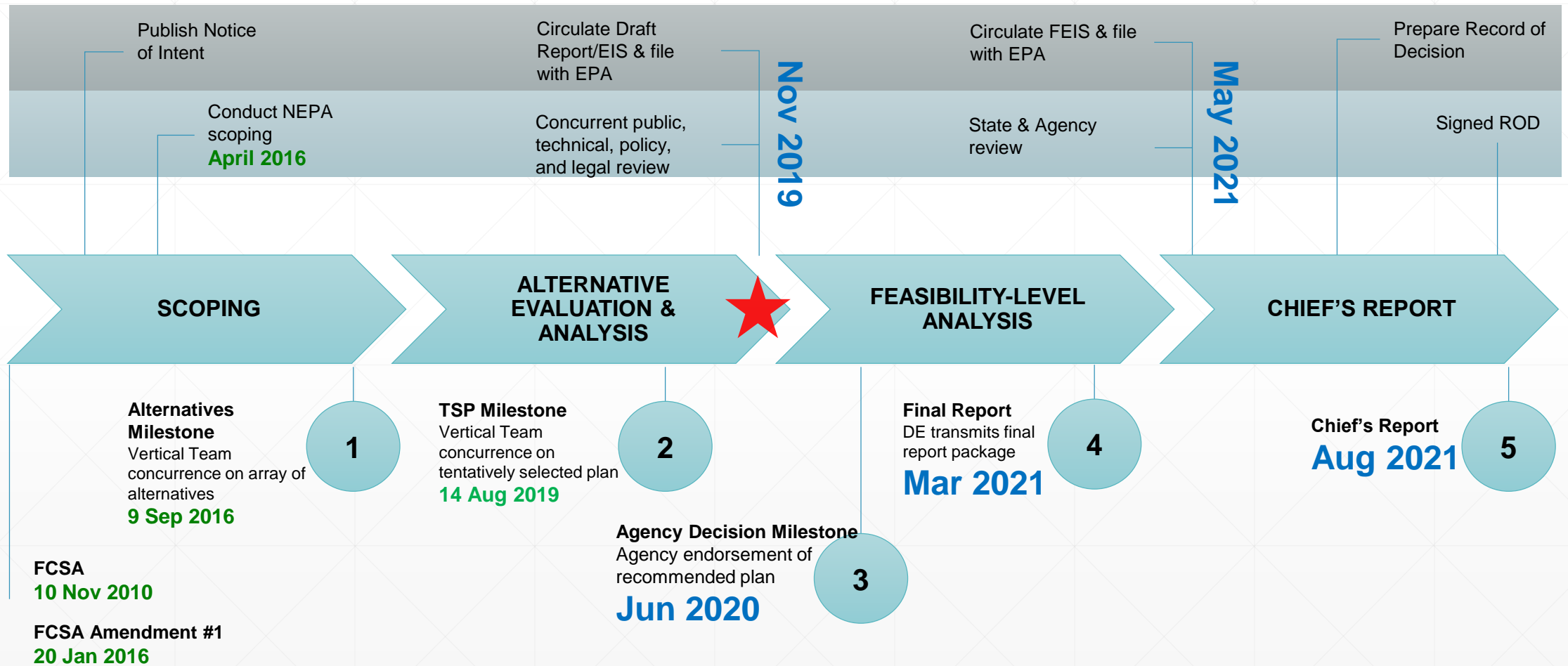


*Probability of occurrence
due to western breakwater
notches - Approximate
number of days with wave
heights greater than 1.0 ft.*

Process to the Tentatively Selected Plan (TSP)



NEXT STEPS AND TENTATIVE SCHEDULE



PUBLIC COMMENT

For more information and links to the full report, visit the U.S. Army Corp of Engineering webpage:

<https://www.spl.usace.army.mil/Missions/Civil-Works/Projects-Studies/East-San-Pedro-Bay-Ecosystem-Restoration-Study/>

Written public comments will be accepted if postmarked, emailed or posted to the webpage by **Monday, January 27, 2020**.

Please send written comments to:

US. Army Corps of Engineers
Los Angeles District, CESPL-PDR-N
Attention: Mr. Naeem Siddiqui
915 Wilshire Boulevard, Suite 930
Los Angeles, California 90017-3401

Or submit comments via email:

ESPB@usace.army.mil
