

Navigational Channel Dredging, Beneficial Reuse and the South Bay Salt Pond Restoration (SBSP) at Eden Landing, Alameda County

PRESENTATION TO THE CALIFORNIA MARINE AFFAIRS AND NAVIGATION
CONFERENCE

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SEPTEMBER 17, 2015 FALL MEETING

South Bay Salt Pond Restoration Project (SBSP) Beneficial Reuse Feasibility Study***

January, 2015 www.southbayrestoration.org

READ IT!

- ▶ Study Background: 50-yr. Plan to achieve SBSP Goals tidal marsh restoration, flood protection and recreational public access
- ▶ Restoration requires natural Bay sediments
- ▶ Natural sediments from Bay currently being depleted from system which would naturally contribute to tidal marsh restoration
- ▶ Opportunity for dredged material placement within SBSP accelerates restoration
- ▶ Construction projects generating fill that is not being reused can help
- ▶ Long Term Management Strategy for Dredged Material Placement (LTMS)
 - ▶ beneficial reuse is top priority
- ▶ BCDC's Regional Sediment Management Program
- ▶ Challenges are technical, logistical, regulatory, financial

▶ ***Prepared for the California State Coastal Conservancy by Moffatt & Nichol
In Association with URS, Lifescience, Ellen Johnck, Kinnetic Laboratories and
Hultgren Tilli

SBSP Beneficial Reuse Feasibility Study cont.

▶ Study Scope

- ▶ Inventory sediment volumes, locations, type
- ▶ Assess feasibility of reusing appropriate sediments in SBSP restoration project
- ▶ Evaluate constraints to beneficial reuse
- ▶ Suggest a path forward
- ▶ Recommend pilot/demonstration projects, e.g. Eden Landing

Implementing Beneficial Reuse Projects



Bay Area not capacity limited !

**Emphasis needs to be on
linking (economically) sources
to needs**

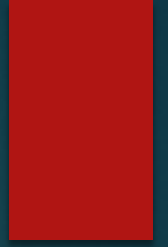
Study Considerations

- ▶ USACE dredges ~2 million cubic yards each year from Federal navigation channels in San Francisco Bay
 - ▶ Federal Standard: least costly dredge material placement, consistent with sound engineering and meeting environmental standards in 404(b)(1) of 33 CFR 335.7
 - ▶ SF Bay Long Term Management Strategy goal of limiting in-bay placement to 20% (40% for upland/beneficial reuse and 40% ocean); conclusion of 12-year review recommended 80% beneficial reuse
 - ▶ Depletion of legacy Gold Rush sediment is now creating a potential sediment deficit in the bay
 - ▶ The majority of tidal marshes bordering the bay may not keep pace with sea level rise
 - ▶ Restoration projects within the bay could use sediment to restore or accelerate restoration of tidal marshes
 - ▶ Capital improvement projects are a major opportunity to drive reuse
- Can the natural dispersal of dredged material be incorporated into a nature-based strategy for augmenting mudflat and marsh sedimentation? --

Study Area

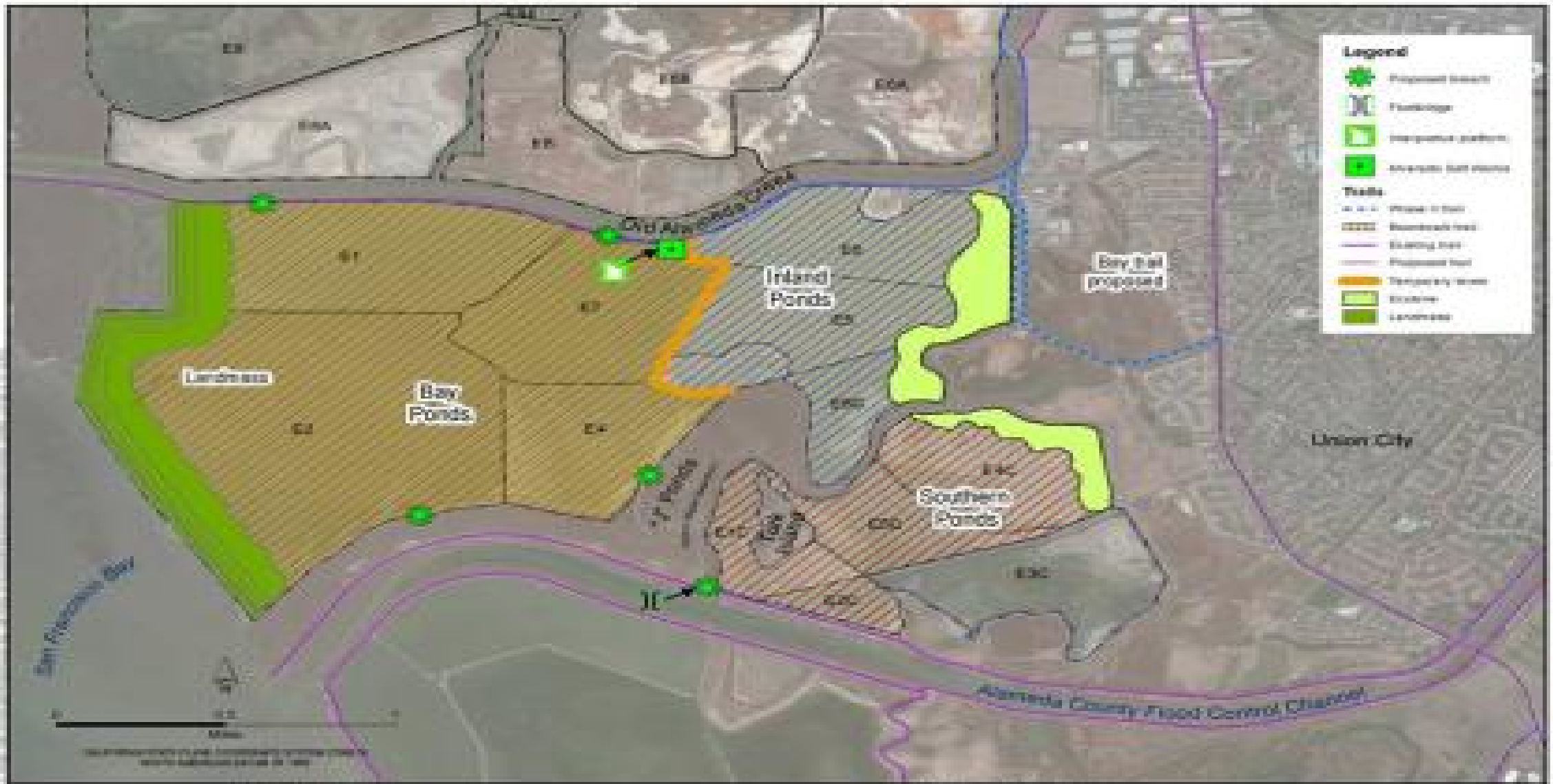


South Bay Salt Pond Restoration Project
Eden Landing Preliminary Alternatives Analysis Report, June, 2014, URS



“ *Coastal Flood Risk Protection Components*

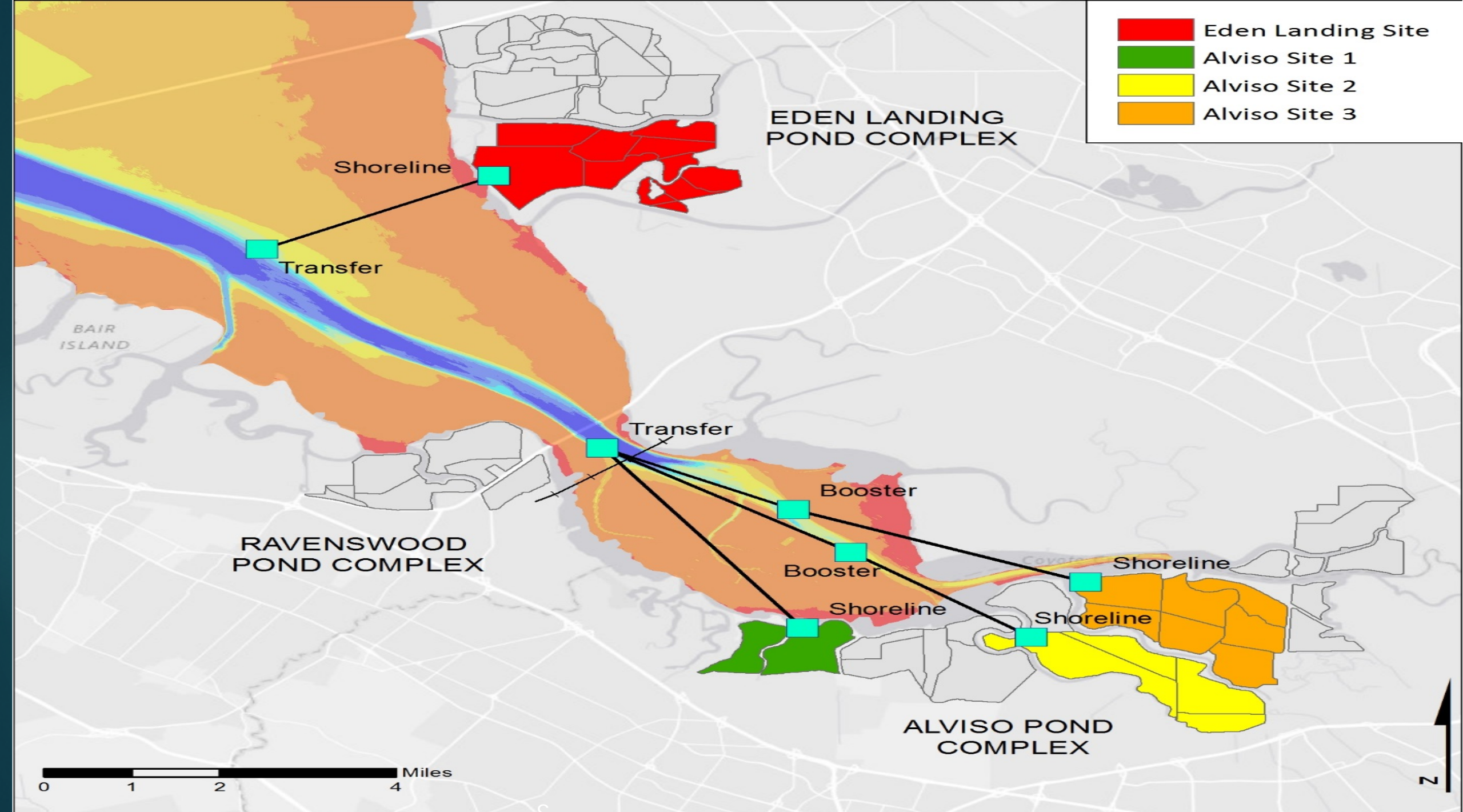
- Primary coastal flood risk protection can be provided by standard approaches, such as constructing engineered levee improvements and/or a flood wall
- A new approach under development by Alameda County provides coastal flood risk protection by means of a “land mass”—a wide and high earthen feature—that would be constructed along the existing outboard levees of Ponds E1 and E2.
- The land mass would function like a barrier island.
- Each of the alternatives being evaluated in the URS Report has either an engineered levee or a land mass to provide coastal flood risk protection; dredged material is considered a critical need to build the land mass



Port of Redwood City Redwood City Harbor (RCH) Deepening Feasibility Study

- USACE-Port 50-50 cost-share
- Civil Works Transformation 3x3x3 project
- Draft Integrated Report/ EIS-EIR Public Comment period closed 08-24-15;
- Tentatively selected Plan (TSP): 32' deepening at RCH and San Bruno Shoals with disposal at SFDODS depth
- 1-6 MCY dredged material available for beneficial reuse







EDEN LANDING Concept

- Alameda County & CSCC/CDFW partner to build infrastructure (berms) (to date Alameda County has declined to financially participate) Currently relying on CSCC.
- USACE brings RCH *deepening material* (1-2 mcy)
- Land mass built launching beneficial reuse in south Bay for Alviso Pond complex
- SCC lets out 5 yr. offloading contract to private entity
- USACE brings Oakland/Richmond/RCH *maintenance material*
- Eden Landing ponds E1, E2, E4, E5, E6, E7

What is needed to enable beneficial reuse to become a reality in SBSP?

USACE commitment needed to include beneficial reuse as alternative

- already doing that.....but only 1 private disposal site
- WRRDA 2014 language and other authorities enabling ecosystem restoration as component of navigation dredging

Restoration community's acceptance that restoration \$\$ are better leveraged by building infrastructure

- flood control, containment berms, offloading infrastructure

Regulatory agencies' support for facilitating permitting

- fill for a levee (landmass) in the Bay
- wetting/drying (bioaccumulation)
- decant water quality (turbidity)
- sediment quality (acceptability)

Eden Landing Restoration Schedule and RCH Deepening Study Schedule

Goal: Synchronize the two projects for maximum environmental, economic and social benefits to the public

- ▶ Eden Landing Draft EIR Scoping: January, 2016
 - ▶ Eden Landing Draft EIR (CSCC lead agency): April, 2016
 - ▶ Eden Landing Final EIR: September, 2016
 - ▶ State and federal permit process: 2017
 - ▶ Construction: 2018-2019
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- ▶ RCH Draft Integrated Report/EIS-EIR (joint USACE-Port of Redwood City): July, 2015
 - ▶ RCH Final Integrated Report/EIS-EIR: December, 2015
 - ▶ Civil Works Review Board: April, 2016
 - ▶ RCH Chief's Report: July, 2016
 - ▶ Construction authorization: 2017
 - ▶ USACE contract bid and award: 2018-19

Discussion and feedback; questions and studies' contact information

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