

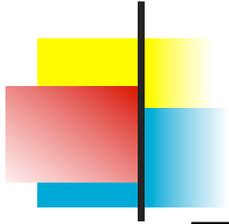
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San Francisco District

# Middle Harbor Enhancement Area Oakland, CA Progress and Status

Presentation to the SF Bay Conservation  
and Development Commission  
July 16, 2015

US Army Corps of Engineers  
Port of Oakland





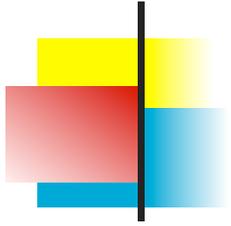
# Middle Harbor Enhancement Area (MHEA)



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- Purpose
- Status
- Next Steps
- Budget
- Future

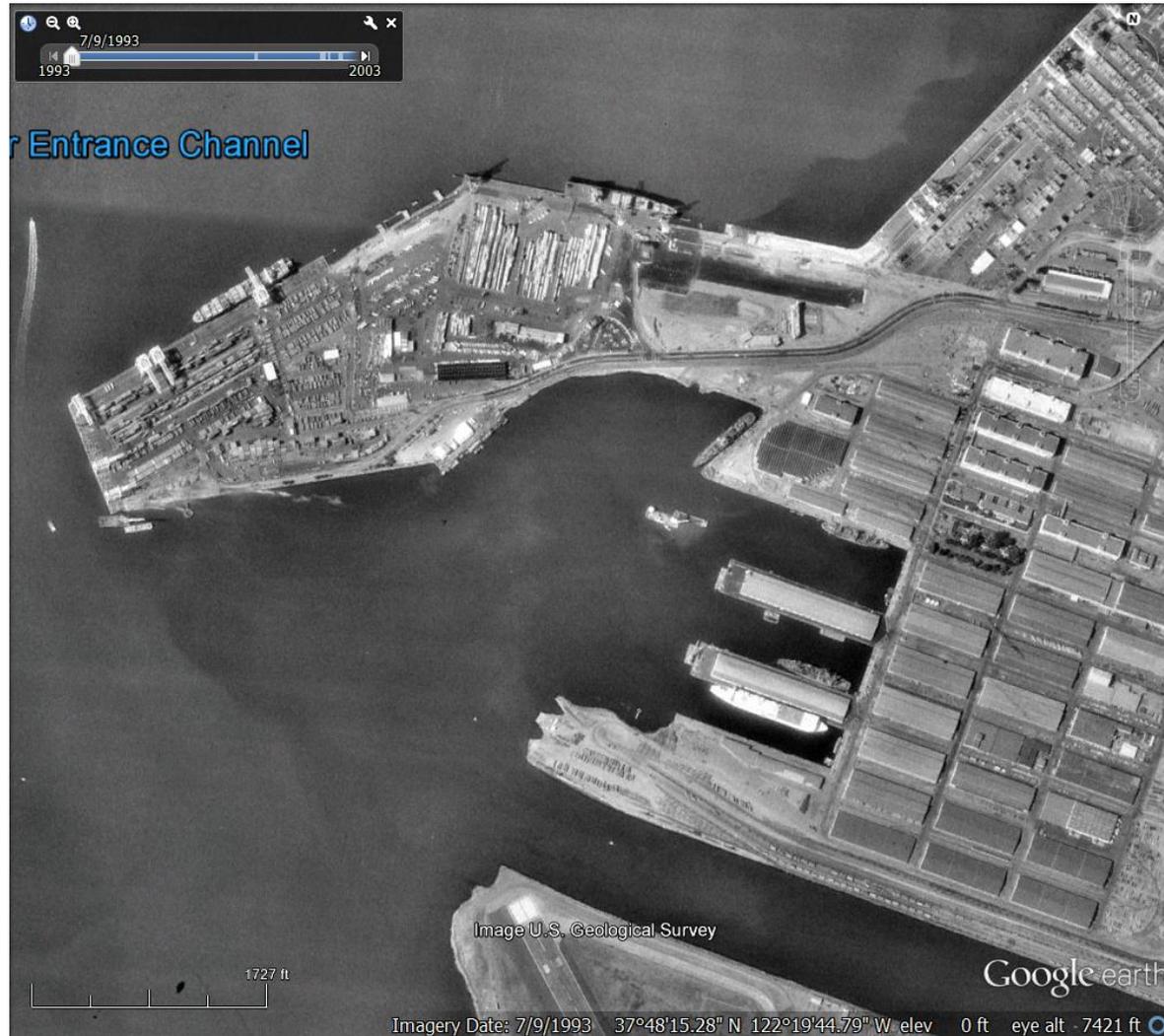


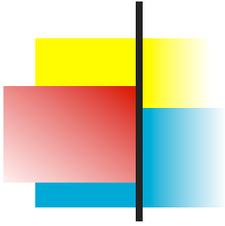


# Middle Harbor in 1993



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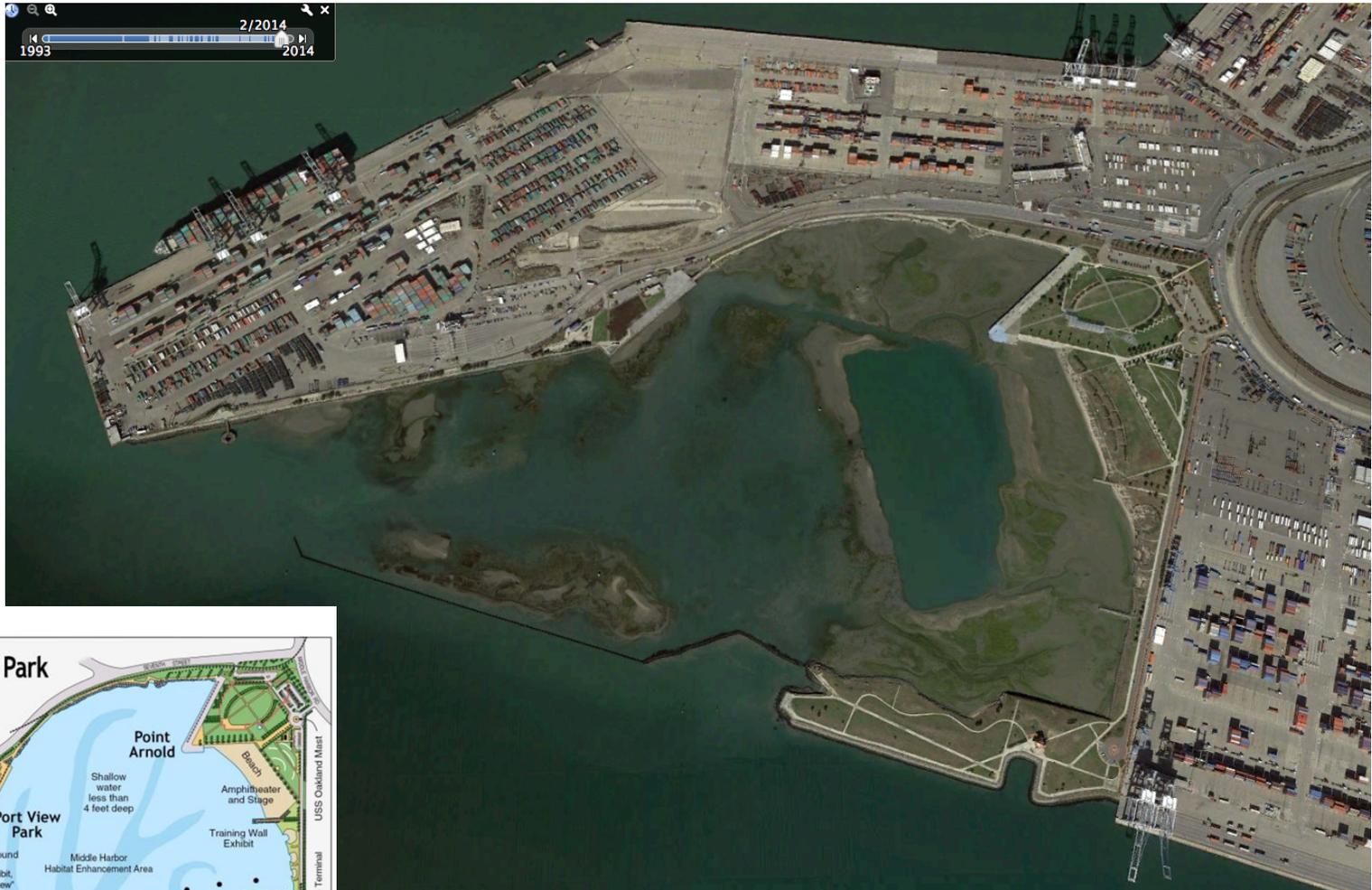




# Middle Harbor Today



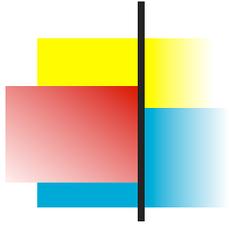
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## Final Design



PORT OF OAKLAND



# Purpose of MHEA

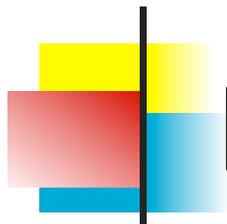


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Restore 181 ac. shallow water habitat and create eelgrass habitat using sand and mud from -50' channel deepening project.

- Design by Technical Advisory Committee
- 10-year performance evaluation period
- Cost effective placement of dredged material enabled Hamilton & Montezuma restoration sites





# Design and Target Habitats



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Bathymetry

Eelgrass

Salt marsh

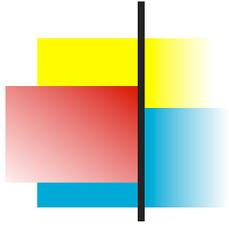
Bird roosts

Fish habitat

Coves

Human use





# Status and Next Steps



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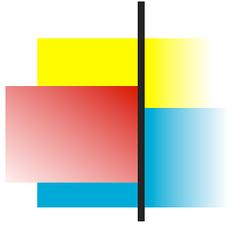
Since placement of material:

- Consolidation of 5.8 million cubic yards (cy) of mud and sand, initial grading

Next Steps (2015 to 2016):

- Final sculpting of ~400,000 cy of sediment
- Relocate rock from jetty to bird islands
- Open MHEA to full tidal circulation, construct marsh for educational purposes



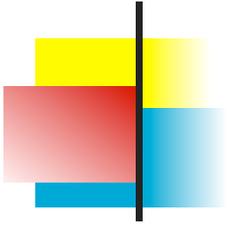


# Interim habitat



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# Future Work

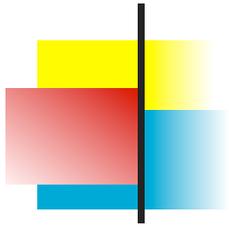


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- Consult with TAC
- Validate tidal flow conditions from predictive modeling
- Plant eelgrass
- Monitor, manage, maintain for 10 yrs





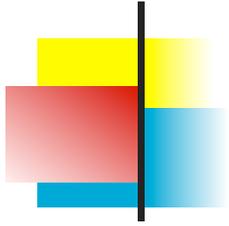
# Project Funding



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Cost to Construct:	approx. \$66.8M
Expenditures to Date:	approx. \$57.4M
Cost to Complete:	approx. \$ 9.4M
FY 2015 Work Allowance:	\$ 6.0M
FY 2016 President's Budget:	\$ 1.2M
Future funding:	\$ 2.2M*

\*contingent on Federal appropriations & Port cost share



# Schedule



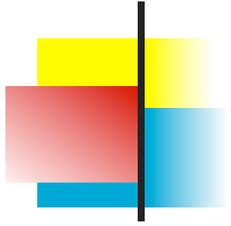
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**CY 2015:** Award and execute contract for final grading; remove/lower east jetty; construct bird islands; update TAC on status; consult with eelgrass habitat experts.

**CY 2016:** Award and execute contract for hydrodynamic modeling and field measurements to verify performance of the design.

**CY 2016 to 2017:** Award and execute contract for eelgrass planting.





# Schedule (cont.)

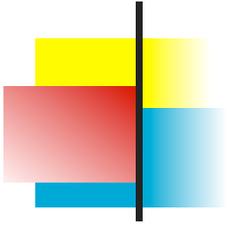


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**2017 to 2027:** USACE performs monitoring, management and maintenance for 10 years. Report periodically to TAC on eelgrass and species monitoring and site management.

**2027 and beyond:** Port of Oakland assumes long-term site management and maintenance.





# Questions?



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