Estuarine Restoration in San Francisco Bay: Design and Adaptive Management

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The San Francisco District of the U.S. Army Corps of Engineers (USACE) is one of several agencies working together to reverse the trend of wetland loss in the Bay estuary by restoring large areas of former tidal salt marsh. The USACE is the federal lead agency on several large scale estuarine wetlands restoration projects which are at varying stages of completion.

The Hamilton Wetlands Restoration Project (HWRP) is approximately 1,000 acres of estuarine and seasonal wetlands currently under construction. The dredged material placement component of the project constituting 7.0 million cubic yards has been completed. When complete, the project will support a mosaic of tidal wetlands, seasonal wetlands, and uplands.

The planning, design, and adaptive management plan have been developed in part based on lessons learned from the Sonoma Baylands Project, another USACE wetlands restoration project based on beneficial use of dredged material. These center around several project objectives, the main of which is to maintain habitat for the federally endangered California clapper rail and salt marsh harvest mouse, shorebirds, and estuarine fish species.

Information from Sonoma Baylands was used to predict tidal marsh evolution rates and optimal tidal connection design dimensions. Similarly the adaptive management plan for HWRP drew upon monitoring data and lessons learned from Sonoma Baylands.

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