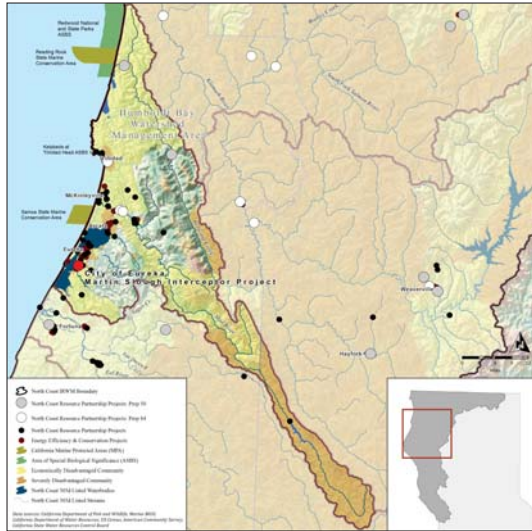


Martin Slough Interceptor

COUNTY OF HUMBOLDT



STATEMENT OF THE PROBLEM

Humboldt Bay supports a significant commercial oyster industry and recreational shellfishing. Both commercial and sport shellfish resources are impacted by runoff from urban and rural areas. Contamination from collection system overflows of raw sewage during high intensity rainfall events is a continued threat to commercial and recreational uses of the bay.

PROJECT GOALS

Short-term: construction of a wastewater interceptor system in four separate construction phases over four years

Long-term: Increased public safety and wastewater system reliability, elimination of aged wastewater lift stations, and improved wastewater system efficiency, safety, and capacity.

THE SOLUTION

Phase 1 of the Martin Slough Interceptor project provides storage capacity for more than 150,000 gallons of wastewater that, during high intensity (up to a 20-year storm) rainfall events, would otherwise be released into the Martin Slough Watershed as Sanitary Sewage Overflows (SSOs).

PROJECT IMPLEMENTATION AND ACCOMPLISHMENTS

This grant cycle has funded the gravity interceptor pipeline and the Phase 2A pump station. To successfully implement the project, engineering design and construction specifications were set to the highest industry standards, utilizing state-of-the-art technology for both mechanical equipment and construction methodology, monitoring, and testing. High factors of safety were designed into the pump station by designing redundancy into dual (high flow/low flow) sets of pumps and controls, and backup power generation with sophisticated controls and current Supervisory Control and Data Acquisition (SCADA) technology. Additional factors of safety were designed into the gravity collection and transport system to ensure trouble free operation and environmental protection from SSO's over the life of the project. All structures and pipelines have been designed to current seismic and industry standards in conformance with the detailed soils analysis and recommendations presented in the Martin Slough Interceptor Geotechnical Study completed in March, 2003. Revegetation efforts within the project area where construction was completed consisted of reseeding with herbaceous species representative of pre-project species composition; and replanting woody riparian vegetation at

a ratio of 2:1 (two individuals planted for each individual removed).

COMPLETION DATE

March 2013

PROJECT BUDGET

IRWM funds: \$ 4,063,743
Leveraged funds: \$12,512,000
Total cost: \$16,575,743

BENEFITS

Economic benefits

- \$172,154.57 in avoided water treatment pumping and odor control costs
- \$1,942,887.29 in avoided operations and maintenance costs
- \$29,026,923 in avoided project costs
- \$1,985,994 in avoided shell fisheries closures

Water Quality

- Enhancement of COMM, MAR, SHELL, SPWN, and WQE beneficial uses

Habitat and Ecosystem function benefits

- Ecosystem restoration benefits to improve salmonid and shellfish habitat
- Improved sport and commercial fishing industries
- Improved recreation and tourism industries

Jobs and Local Economic Benefits

- The project cost \$16,575,743 which was spent using local labor and supplies when possible, contributing to State goals for environmental justice and social equity

NEXT STEPS & RECOMMENDATIONS

The entire Martin Slough Interceptor project, when complete in 2015, will convey wastewater flows from up to 16 decommissioned lift stations in the Martin Slough Basin to the City's Elk River Wastewater Treatment Facility in a safe and efficient manner that will reduce risks of Sanitary Sewer overflows (SSO's) into the Martin Slough Basin, Elk River, and Humboldt Bay.

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