

Total Maximum Daily Load Progress Report		Castro Cove Sediment Remediation
Regional Water Board	San Francisco Bay, Region 2	<b>STATUS</b> <input checked="" type="checkbox"/> Conditions Improving <input type="checkbox"/> Data Inconclusive <input type="checkbox"/> Improvement Needed <input type="checkbox"/> TMDL Achieved/Waterbody Delisted
Beneficial uses	EST, RARE, WILD	
Pollutant(s) addressed:	PAHs, mercury, selenium, dieldrin	
Implemented through:	Cleanup and Abatement Order	
Approval date:	November 2006	

### Remediation summary:

The Standard Oil Company (later Chevron Products Company) opened a petroleum refinery adjacent to Castro Cove in 1902. Prior to the Clean Water Act, the refinery discharged untreated wastewater and solid wastes into Castro Cove. In the late 1990s, the State and Regional Water Boards identified Castro Cove as a toxic hot spot under the Bay Protection and Toxic Cleanup Program, and it was added to the 303(d) list in 2002.

Concurrent with the toxic hot spot listing, the Regional Water Board initiated enforcement requiring that Chevron perform additional chemical and biological sediment characterization and develop a cleanup plan for a 20-acre hot spot within Castro Cove. The Board's enforcement effort culminated in a Cleanup and Abatement Order adopted in November 2006, which required Chevron to clean up the hot spot to background levels of pollution. Chevron has completed the initial cleanup, addressing the impairment without requiring adoption of a TMDL.

### TMDL Water Quality Attainment Plan

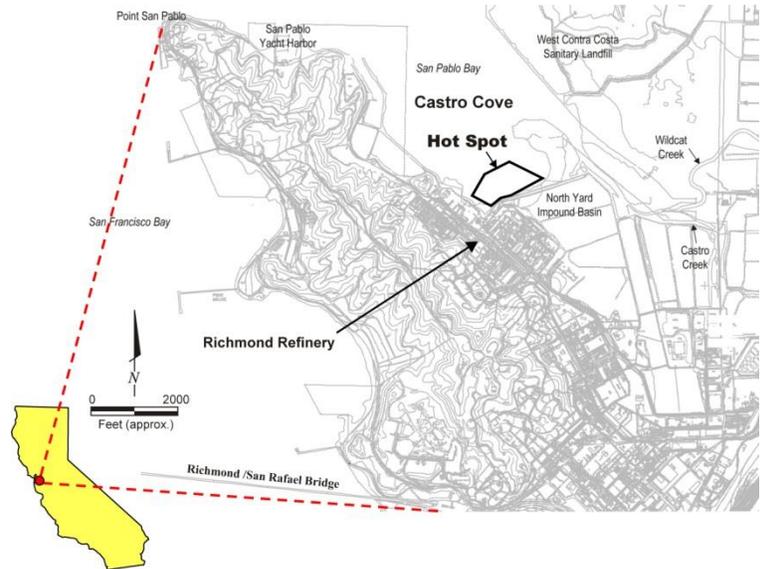
The following actions have been completed:

- Removed 97,000 cubic yards of contaminated sediment over the 20-acre hot spot. The removal activities were completely enclosed by a sheet pile wall to prevent discharge of contaminants during dredging.
- Capped 1.5 acres of wetland and 18.5 acres of mudflats on the former hot spot by beneficially reusing 50,000 cubic yards of clean dredged sediment from adjacent yacht harbors, and placing it over 45,000 cubic yards of clean Bay sand.

Monitoring of cap stability and vegetation re-establishment in the restored hot spot will continue for a minimum of 3 years.

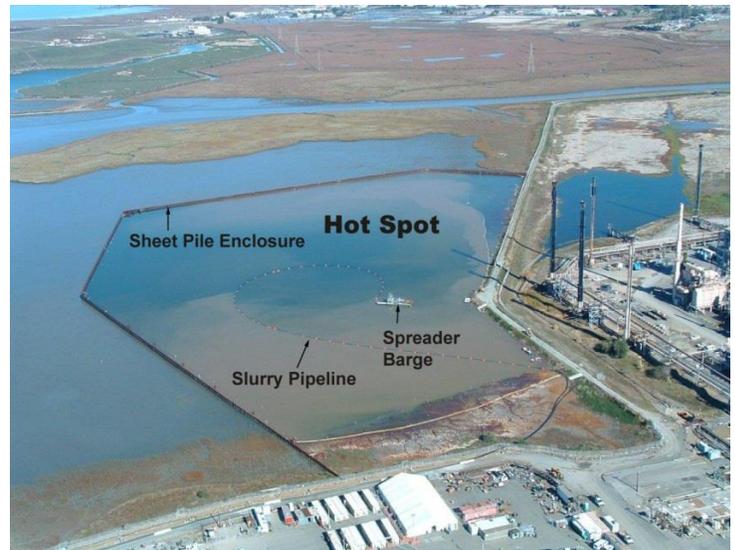
The next step will be to consider delisting Castro Cove as an impaired water body.

### Castro Cove Remediation Site Map



### Water Quality Outcomes

- Removed 20 acres of sediment impacted by PAHs, mercury, and benthic toxicity.
- Removed 180 kilograms of mercury from the Bay, consistent with the SF Bay Mercury TMDL Implementation Plan.
- The beneficial reuse of clean sediment ensures sediment quality improved for invertebrates, fish, and wildlife that reside in or visit Castro Cove.



Castro Cove Remediation, November 2010