

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT (Thomas Mumley
and Richard Looker)

MEETING DATE: November 18, 2009

ITEM: 14

SUBJECT: **San Leandro Bay Contamination Cleanup and Abatement Project, Alameda County** – Resolution Requesting Funding From the State Water Pollution Cleanup and Abatement Account

CHRONOLOGY: The Board has not considered this item before.

DISCUSSION: This item recommends that the Board adopt a Tentative Resolution (Appendix A) that would request funding from the State's Cleanup and Abatement Account for the proposed San Leandro Bay Contamination Cleanup and Abatement Project. The purpose of the proposed project is to accomplish cleanup and abatement of contamination in San Leandro Bay that adversely impacts or poses a threat to aquatic life, wildlife, and human health. We have prepared a Project Plan (Attachment B) that describes the project and tasks that would be implemented. The projected cost of the project is \$3 million to be spent over five years.

San Leandro Bay is a subembayment of Lower San Francisco Bay whose drainage area is highly urbanized and includes industrially-dominated catchments (Appendix C). Sediments in San Leandro Bay have been contaminated by historical and current industrial activities in addition to urban commercial and residential runoff and atmospheric deposition. Contaminants of concern include dioxins and furans, lead, mercury, selenium, zinc, legacy pesticides (DDT, dieldrin, and chlordane), polychlorinated biphenyls (PCBs), and polycyclic aromatic hydrocarbons. Contaminants continue to be conveyed to the embayment via creeks, storm drain channels, and tidal action from the Oakland Inner Harbor. However, there is no known "smoking gun" that is the cause or source of contamination: contamination is distributed throughout San Leandro Bay; the contaminants are associated with legacy spills, releases, and discharges; and the contaminants are ubiquitous in urban runoff discharges.

The project would provide a nexus for several of the Board's regulatory programs. San Leandro Bay is on the State's list of impaired water bodies and list of Toxic Hot Spots, subject to the Bay Protection and Toxic Clean Program, due to excessive levels of contamination. In addition to cleanup of a toxic hot spot and resolution of the 303(d) listings, the project would help implement the San Francisco Bay mercury and PCBs TMDLs and sediment quality objectives. Also, contaminant sources are or may be associated with the Municipal Regional Stormwater Permit, the Statewide Industrial Stormwater General Permit, and/or the Site Cleanup Program. Moreover, cleanup and abatement of San Leandro Bay

contamination can serve as a model for the remediation and enhancement of other contaminated portions of enclosed bays and estuaries throughout California.

The project will follow the steps we have used for San Francisco Bay-margin site cleanups. These include:

1. Characterizing the current spatial extent of contamination;
2. Determining temporal trends in sediment contamination;
3. Identifying and characterizing past and current sources and loads;
4. Performing an ecological and human health risk assessment;
5. Conducting a feasibility study assessing remedial alternatives;
6. Performing appropriate cleanup and abatement activities; and
7. Evaluating post-cleanup residual risks to humans and wildlife.

Identifying an optimal approach to addressing the complex combination of problems in San Leandro Bay will be technically challenging. The cleanup must be accomplished with care such that this ecosystem is supported and enhanced but not threatened as a result of cleanup activities. Despite the presence of legacy contamination, San Leandro Bay is a productive, yet vulnerable, aquatic ecosystem that supports birds and wildlife and provides fishing opportunities for local residents. An additional challenge is the threat of sea level rise and potential changes in runoff volume and intensity. Therefore, project plans and products will be reviewed by a scientific peer review panel whose members will be nationally or internationally recognized authorities in their fields, and will represent all areas of expertise needed to guide this multi-disciplinary effort. The Aquatic Science Center (San Francisco Estuary Institute) will be the technical lead on the project, and we envision engaging the technical expertise of the United States Geological Survey and other stakeholders. We will also call on State Water Board staff working on sediment quality-related issues to participate on our project team.

An important guiding principle of the project is to initiate cleanup and abatement and other regulatory action as quickly as possible, commensurate with our understanding of the site. We have no conclusive presumptions regarding a list of responsible parties, but we have identified a number of key stakeholders that we will engage throughout the project's adaptive implementation. Key stakeholders include: Alameda County; local municipalities including the cities of Alameda, San Leandro, and Oakland; Pacific Gas and Electric; General Electric; East Bay Municipal Utility District; and the Port of Oakland. Once responsible parties have been identified, we will pursue appropriate regulatory action to direct abatement of discharges, cleanup of contamination, and/or recover, offset, or augment State resources used in the cleanup and abatement effort.

**RECOMMEN-
DATION:**

Adopt the Tentative Resolution

APPENDICES:

- A. Tentative Resolution
- B. Project Plan
- C. Location Map