

EXECUTIVE OFFICER'S REPORT: *June 2013*

A Monthly Report to the Board and Public

NEXT MEETING: June 12, 2013

WEBSITE: <http://www.waterboards.ca.gov/sanfranciscobay/>

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Lehigh and Sierra Club Settlement (Dyan Whyte)

Last month, the Sierra Club announced a settlement with Lehigh Southwest Cement Company and Hanson Permanente Cement (Lehigh), in which Lehigh agreed to implement selenium control measures and significantly reduce the amount of selenium discharged to Permanente Creek. An interim treatment system is required to be up and running by October 2014, with a final system in operation by September 2017. Lehigh also agreed to restore approximately 3.5 miles of Permanente Creek degraded by quarry mining overburden and wastes. Both parties consulted with our staff to make sure that the settlement terms would be consistent with Water Board permits and other requirements.

Permanente Creek flows from its headwaters, within the Lehigh site, through the cities of Cupertino, Los Altos Hills, and Mountain View before emptying into San Francisco Bay. Selenium is a toxic water pollutant that can cause reproductive failure and deformities in fish and other forms of aquatic life. Sierra Club and Water Board sampling showed elevated levels of selenium in Lehigh's quarry pit discharges, often more than ten times the allowable standard, and also in the downstream waters of Permanente Creek in Rancho San Antonio Park.

Over the last few years, we have devoted a considerable amount of staff time to evaluating

water quality threats and mechanisms for regulating this very large and complex site. Lehigh is currently working with our staff in order to comply with an extensive Water Code 13267 Investigative Order. We are also in the process of developing an individual NPDES permit, evaluating the need for waste discharge requirements, and discussing creek restoration options with Lehigh.

2012 Wastewater Mercury and PCBs Loads (Robert Schlipf)

The Water Board adopted a watershed permit in 2007 and reissued it earlier this year to implement Total Maximum Daily Loads (TMDLs) for mercury and PCBs in San Francisco Bay for all municipal and industrial wastewater sources. For the year 2012, municipal and industrial wastewater dischargers were well within the permit's initial mass loading limits and are well on their way to meeting the final TMDLs allocations for mercury and PCBs.

The charts in Figure 1 below show the dischargers' compliance with the initial mercury loading limits since 2008, along with the new final limits the Board imposed with the permit reissuance.

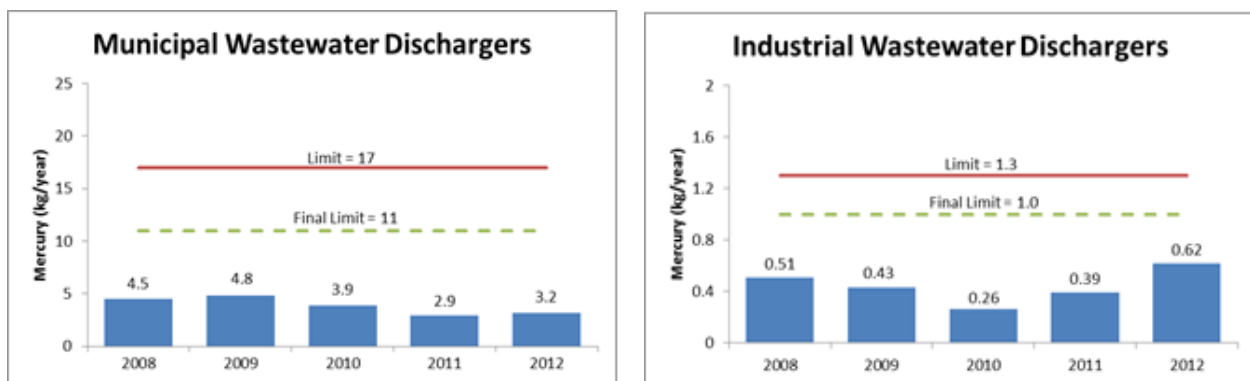


Figure 1. Mercury loadings from 2008 to 2012.

The mercury loads for municipal wastewater discharges have trended lower in the past two years. This reflects pollution prevention efforts, excellent solids removal, and capital upgrades at some treatment plants to improve performance. For industrial wastewater discharges, mercury loads in 2012 reached their highest level in the past five years. In 2012, the Shell Refinery experienced some issues with pretreatment and poorer than normal removal rates that led to five violations of its mercury concentration limits. This, in turn, significantly increased Shell's annual mercury loading from the previous year. We expect that improvements in Shell's pretreatment will reduce mercury loadings back to those in previous years.

For PCBs, the loadings from municipal and industrial wastewater dischargers were well within their respective TMDL allocations in 2012. The loads from municipal dischargers were about 1.2 kg/year compared with an allocation of 2.0 kg/year, while the loads from industrial dischargers were about 0.013 kg/year compared with an allocation of 0.031 kg/year. The permitting requirements for PCBs became effective when the Board amended the watershed permit in March 2011. For this reason, 2012 was the first year that an annual assessment of PCBs loads could be done.

Yosemite Slough Sediment Cleanup (Tina Low)

Yosemite Slough is a tidally-influenced inlet channel located within the South Bay basin of San

Francisco Bay, between Hunters Point Naval Shipyard to the north and Candlestick Point State Recreational Area to the south (see Figure 2). The Slough, now approximately 1,600 feet long and 200 feet wide, once consisted of a large network of tidal marshes and mudflats, but was narrowed by placement of fill materials between 1900 and 1970. The Slough sediments are contaminated with PCBs from a defunct drum recycling facility.



Figure 2: Location of Yosemite Slough, with respect to the California State Parks Yosemite Slough Wetland Restoration Project and Hunters Point Naval Shipyard Parcels E-2 and F. Yosemite Slough and Parcel F are slated for PCB sediment cleanup.

U.S. EPA is moving forward with a removal action to address the contaminated sediments in the Slough. Water Board staff are part of the Technical Steering Committee and will provide input on remedy selection and cleanup levels. Other participants include NOAA Fisheries, U.S. Fish and Wildlife Service, California State Parks, Bay Conservation and Development Commission, Sierra Club, and Audubon Society.

U.S. EPA issued a working draft of the Engineering Evaluation/Cost Analysis (EE/CA) last month, which presented proposed remedial goals and several cleanup alternatives. U.S. EPA's recommended alternative is to excavate the top one-foot of sediment where PCBs exceed 1,240 ug/kg and remove a second foot where PCBs exceed 2,480 ug/kg. This alternative would result in the removal of approximately 14,400 cubic yards of sediment and 200 kg of PCBs.

After considering Technical Steering Committee comments, U.S. EPA will issue a public draft of the EE/CA this summer and hold a community meeting. After finalizing the EE/CA, U.S. EPA will select the remedy and prepare an Action Memorandum. Remedy implementation (i.e., on-the-

ground cleanup of the Slough) is expected to occur in summer 2016.

Cleanup of the Slough is expected to enhance wildlife and recreational values, as it will be integrated with the Cal Parks Yosemite Slough Wetlands Restoration project and the Navy's cleanup at the Hunters Point Shipyard. In 2007, the Board adopted WDRs to certify the Cal Parks project, which includes restoring 12 acres of tidally-influenced wetlands on the north and south sides of Yosemite Slough and providing a new link in the Bay Trail. Phase One, completed in December 2011, included seven acres of wetlands and one bird-nesting island. Phase Two, which includes constructing the remaining five acres of wetlands and a second bird-nesting island, remains in the planning phase pending additional funding. Cleanup at the Hunters Point Shipyard includes areas where tidal wetlands will be constructed (Parcel E-2) and where contamination in near-shore underwater areas around the shipyard, including the slough mouth, will be removed (Parcel F).

Water Board staff Tina Low and Agnes Farres continue to coordinate cleanup and restoration issues with U.S. EPA, Cal Parks, the Navy, and other agencies for the three projects.

Status of Municipal Efforts to Reduce Trash Loads (Dale Bowyer)

Working with the Municipal Regional Stormwater Permit (MRP) Permittees, we have developed an improved strategy for solving the trash problem that focuses actions on high trash generating areas. This strategy was developed in response to concerns we raised in June 2012 on the Permittees' approach for tracking trash reduction and their associated short-term trash load reduction plans, which relied heavily on an unverified "credits system" for trash control actions. Permittees long-term trash load reduction plans, due February 2014, will be based on this strategy, and it will be used to assess attainment of the MRP requirement to reduce trash loads by 40 percent by July 2014.

In our discussions with a work group of Permittees, we emphasized focusing on new trash reduction actions and reporting on solving trash problems in measurable ways. These discussions produced the following working principles of the improved trash reduction strategy:

- Permittees will develop a map of trash generation areas in their jurisdictions, divided into high, medium, and low trash generation areas, using local knowledge and field observations to validate or revise land-use and demographics-based trash generation maps;
- Permittees will define the set of trash reduction tools (actions), including implementation performance measures, and determine combinations of the actions that may be found equivalent in effectiveness to full trash capture devices;
- Permittees will divide their jurisdiction into trash management areas, roughly corresponding to the trash generation mapping, and will plan and implement full trash capture devices or equivalent new trash reduction actions within priority (high and medium trash generating) management areas and assess effectiveness of these actions; and
- Permittees will conduct assessment or accountability measurements to demonstrate and verify progress towards and attainment of required trash load reduction levels.

We have directed the Permittees to begin reporting progress based on this strategy, starting with their annual reports (due in September). Until we resolve current technical challenges and constraints to quantifying trash loads directly, we have directed the Permittees to demonstrate load reduction progress by adequately documenting implementation of new or enhanced actions, along with an appropriate assessment measure in each priority management area. Assessments will be conducted in receiving waters, next to receiving waters, or at strategic on-land locations.

Environmental Screening Levels Update (Uta Hellmann-Blumberg)

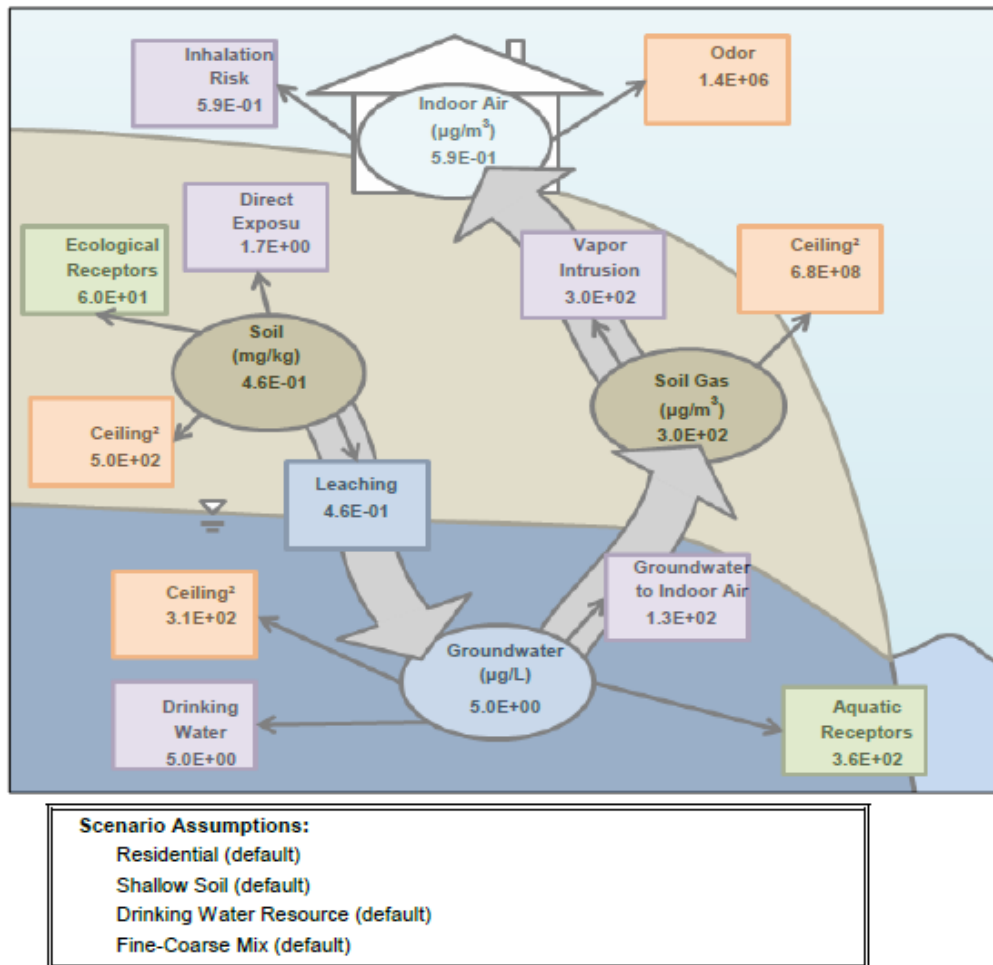
We recently released another update to the Board's Environmental Screening Levels (ESLs). It further revises the February 2013 version of the ESLs. The March 2013 EO Report provided an overview of the February 2013 ESLs. This was the first update since 2008; it made significant changes to the vapor intrusion elements of the ESLs, in order to reflect new information about this exposure pathway. The May 2013 update, by contrast, is more modest in scope and incorporates an approach to ESLs for petroleum that is similar to what is used in other states and by U.S. EPA, and revised odor thresholds for indoor air.

ESLs are intended to help expedite the identification and evaluation of potential environmental concerns at sites where contamination has been identified. Data collected at a site can be directly compared to the ESLs and the need for additional actions quickly determined. ESLs help various parties – dischargers, regulators, landowners, and prospective purchasers – focus attention on the most significant issues. The various parties may avoid the need for costly and time-consuming site-specific assessments, thereby promoting site cleanup and Brownfield restoration.

The ESLs are more completely described in a supporting User's Guide, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, which we expect to update later this year. The ESLs can be accessed on the Water Board's website at http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/esl.shtml.

Figure 3 below comes from the May 2013 ESLs guide and helps illustrate the range of concerns addressed by the ESLs. We expect that this figure will help dischargers and regulators to determine which concerns apply at specific sites and how to use the ESLs to screen those sites.

Environmental Screening Levels for Specific Concerns Trichloroethene



Legend:
 Purple - Human Health Risk
 Green - Ecological Risk
 Orange - Odor/Nuisance
¹ Direct exposure includes dermal contact, inhalation, and ingestion
² Ceiling Level is the lowest of the Nuisance Odor/Taste threshold (with an attenuation factor for soil gas), the soil saturation limit, 1/2 of the solubility, or 50,000 $\mu\text{g}/\text{L}$ for groundwater.

Figure 3. Chart from May 2013 ESLs guide.

Suisun Marsh TMDL (Barbara Baginska)

Staff is developing a multi-pollutant TMDL to address low dissolved oxygen/organic enrichment, mercury, and nutrients in Suisun Marsh. Water quality problems in the Marsh, including fish kills, have been linked to periodic discharges from managed duck ponds that are low in dissolved oxygen and enriched with organic carbon. These problems are particularly evident in the slow-flowing, low-mixing, back-end sloughs that dominate the northwestern part of the Marsh. Every fall, these back-end sloughs experience “black water” events. “Black water” results from anaerobic bacterial decomposition of vegetation in managed wetlands, leading to stored water that is anaerobic or has low levels of dissolved oxygen. When black water is drained from duck club properties, water quality in receiving sloughs becomes degraded.

On April 24, we met with more than 90 duck club owners and managers at the annual Suisun

Marsh Landowner Workshop, organized by the Suisun Resource Conservation District at Rush Ranch, in Suisun Marsh. These landowners take great pride in managing their properties as resting and feeding grounds for waterfowl migrating on the Pacific Flyway, and this annual workshop was an opportunity to talk with the landowners about our shared interest in the Marsh.

Board staff Barbara Baginska gave a presentation on the TMDL project at the Workshop. She talked about the importance of early implementation and the Board's desire to work cooperatively with the landowners, and provided an overview of the potential actions needed to improve water quality. Some of these actions, such as staggering the timing of discharges from duck clubs, are already being implemented by some clubs. The main goal of talking to the landowners was to encourage their collaboration in the TMDL development process, ensure that they were aware of the TMDL and the potential for needed changes in duck club management practices, and convey opportunities to participate in crafting water quality improvement measures that are effective and easy to implement.

Alameda County Water District Cooperative Agreement (Chuck Headlee)

In late May, I sent a letter to the Alameda County Water District clarifying how our two agencies will continue to collaborate in overseeing cleanup sites in the Alameda County Water District's service area in the cities of Fremont, Newark, and Union City. The basic terms of this collaboration are laid out in a 1996 Cooperative Agreement between the Board and the District. There have been several significant developments since 1996, including the State Board's low-threat closure policy for petroleum underground tank cases and a 2012 State law that precludes the District from being fully responsible for cleanup oversight.

The 1996 Cooperative Agreement identifies duties and responsibilities for both agencies and lists Board standards and guidance that should be used in the District's oversight efforts. The Agreement is beneficial to both agencies, giving the District a greater role in protecting its groundwater basin and allowing the Board to leverage its scarce staff resources. The Agreement remains beneficial to both agencies but changes were needed to clarify roles and responsibilities. Both agencies agreed that rather than modifying the Agreement, a letter could accomplish the same result.

Campus Rainworks Challenge (Keith Lichten)

On Earth Day, U.S. EPA announced the results of its Campus Rainworks Challenge, a design competition in which student teams created innovative green infrastructure designs for a site on their college or university campus, showing how managing stormwater at its source can benefit both the campus community and the environment. U.S. EPA awarded prizes to the team (\$2,500 for the winning team) and to the advising professor (\$11,000) for green infrastructure research. Board staff Keith Lichten served as a competition judge, and the final winning designs were selected by U.S. EPA's acting administrator, Bob Perciasepe. The winning teams were the Illinois Institute of Technology and the University of Florida, each of which engaged students to develop innovative designs that improved water quality, reduced water use, and enhanced campus community.

Designs submitted for Campus Rainworks showed that there is broad knowledge and

understanding of green infrastructure and low impact development concepts—including measures, like bioretention, that have been in broad use for less than 10 years. The competition is likely to create academic and professional interest and capacity to implement green infrastructure. Campus Rainworks' interdisciplinary teams typically included engineers, landscape architects, scientists, and economists. Our hope is that these and similar teams will foster future interdisciplinary work that will create more robust and sustainable urban planning and water pollution solutions. The contest is planned to run again next academic year.

In-house Training

Our May training was offsite and comprised a San Francisco Public Utilities Commission (SFPUC)-led tour of low impact development projects in San Francisco, including the new SFPUC building, and of the SFPUC's Oceanside Water Pollution Control Plant. We have no training in June.

Staff Presentations

In March, Keith Lichten spoke at UC Berkeley's graduate seminar, *Hydrology for Planners*. He discussed the history of water pollution and regulation in the United States, including changing perspectives on rivers' roles and urban nature, current approaches to clean up urban stormwater runoff, and expected future trends.

On April 24, A.L. Riley participated in a panel discussion on the future of watershed protection and restoration. The event took place on Watershed Day and was held in the Cal/EPA building in Sacramento. The panel also included staff from the California Department of Fish and Wildlife and California Department of Conservation. The discussion focused on how the watershed community can work to develop new, more diverse funding sources for watershed work. State Board Member Steve Moore was the keynote speaker for the event and State Board Member Tam Doduc attended as well.

On May 3, I spoke as part of a panel addressing the topic, *What are the Economic Impacts of Environmental Agencies when Making Decisions?*, at the Bay Planning Coalition's 2013 Decision Makers Conference. I emphasized that the Water Board considers all the beneficial uses of the Bay Region's waters, including navigation, water supply, and industrial use, when making its decisions and that protection and restoration of the Region's waters was key to the Bay Area's quality of life. I also outlined the Board's ongoing initiatives to improve its efficiency and to reduce costs for both the Board and the regulated community.

Brian Thompson attended Palomares Elementary School's 7th Annual Watershed Expo on May 17. All of Palomares Elementary and third-grade students from three other schools in the Castro Valley Unified School District (including two Title 1 schools) learned about the local watershed. There were a total of 17 exhibitors, including representatives from UC Berkeley, Lawrence Hall of Science, Alameda County, Cal State East Bay, Castro Valley Sanitary District, East Bay Regional Park District, Hayward Shoreline Interpretive Center, and Junior Naturalists. For the Water Board exercise, students evaluated the "health" of Palomares Creek by scoring attributes of the creek. The exercise was based on the type of stream bioassessments conducted for the Board's Surface Water Ambient Monitoring Program.



Students enjoyed the hands-on experience and did an impressive job of evaluating Palomares Creek, giving it a very good (B+) rating. Brian compiled the students' scores and provided a summary of the exercise for teachers at Palomares Elementary School, so that the students could see the results of their work and to reinforce what they learned.

Penalty Enforcement Proposed Actions and Final Settlements (Lila Tang)

The following tables show complaints, proposed settlements, and settled actions for assessment of penalties as of last month's report. Complaints and proposed settlements are available at: http://www.waterboards.ca.gov/sanfranciscobay/public_notices/pending_enforcement.shtml

New Complaints			
These items are or were recently open for public comment			
Discharger	Violation	Penalty Proposed	Comment Deadline
E- D Coat Inc., in Oakland	Failure to submit 2011-12 industrial stormwater report	\$7,460	June 17, 2013

Proposed Settlements			
The following are noticed for a 30-day public comment period. If no significant comments are received by the comment deadline, the Executive Officer will sign an order implementing the settlement.			
Discharger	Violation	Penalty Proposed	Comment Deadline
City of San Jose, City of Santa Clara, San Jose/Santa Clara, Water Pollution Control Plant, in San Jose	Discharge limit exceedance	\$3,000	June 10, 2013
California Department of Transportation, District 4, Caldecott Tunnel Project, in Oakland and Orinda	Discharge limit exceedances and late discharge report	\$9,000	June 10, 2013

Settled Actions			
On behalf of the Board, the Executive Officer approved the following settlements.			
Discharger	Violation	Penalty	Supplemental Environmental Project
Martinez Shell Refining Company, in Martinez	Discharge limit exceedances	\$15,000	None
Cedar Fair Entertainment Company, in Santa Clara	Discharge limit exceedance	\$3,000	None
Golden Gate Petroleum, in Martinez	Late 2011/2012 industrial stormwater report	\$3,200	None
City of Calistoga, Dunaweal Wastewater Treatment Plant, in Calistoga	Discharge limit exceedances	\$6,000	None

The State Board's Office of Enforcement includes a statewide summary of penalty enforcement in its Executive Director's Report, which can be found on the State Board website: http://www.waterboards.ca.gov/board_info/eo_rpts.shtml