CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
SAN FRANCISCO BAY REGIONAL WATER QUALITY CONTROL BOARD

EXECUTIVE OFFICER'S REPORT: *June 2012*

A Monthly Report to the Board and Public

NEXT MEETING: July 11, 2012 **WEBSITE:** http://www.waterboards.ca.gov/sanfranciscobay/

Items in this Report (Author[s])

Municipal and Industrial Wastewater Mercury Loads Decline (Robert Schlipf)

For the year 2011, municipal and industrial wastewater discharges were well within the mass loading limits prescribed by the Board in its mercury watershed permit. This watershed permit implements allocations for municipal wastewater, as set forth in the San Francisco Bay Mercury Total Maximum Daily Load.

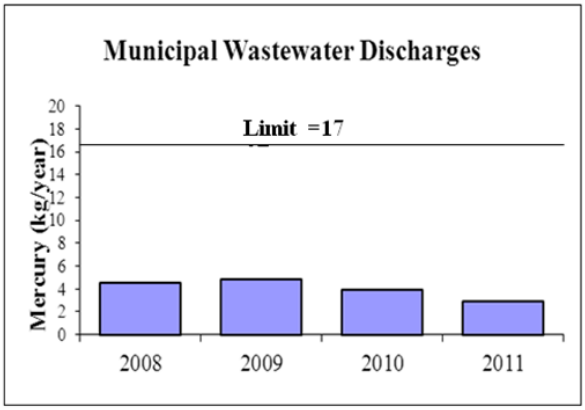

Figure 1a. *Municipal Wastewater Discharges between 2008 and 2011.*

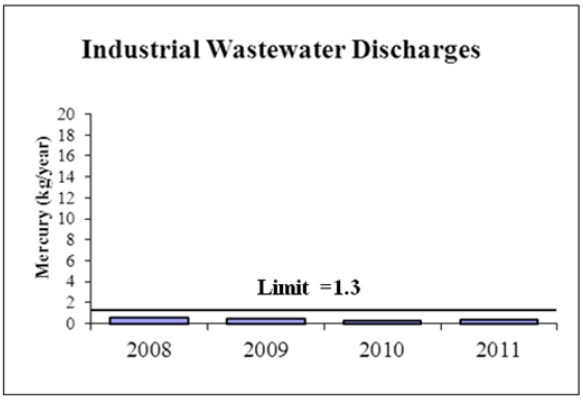

Figure 1b. *Industrial Wastewater Discharges between 2008 and 2011.*

Figure 1a Illustrates that discharges of mercury from municipal wastewater dischargers have declined since the permit became effective in 2008. In 2011, the total municipal load was 2.9

kg/year, the lowest loading yet recorded. The average municipal load for the past four years has been about 75 percent below its current permit limit of 17 kg/year and is also well within the final limit of 11 kg/year coming into effect in 2028. Municipal wastewater dischargers continue to improve their efforts at reducing mercury through source control activities. Most municipal dischargers have implemented dental amalgam control and public outreach and education programs. Additionally, municipal dischargers have continued to collect hazardous waste, fluorescent lights, thermometers, and batteries, which also may be helping to reduce loads from municipal stormwater runoff.

Mercury loadings from industrial wastewater dischargers are considerably lower than municipal wastewater dischargers (Figure 1b). In 2011, the total industrial load was 0.39 kg/year, which is comparable to past years and 70 percent below the final permit allocation of 1.3 kg/year. For industrial dischargers, source control projects continue to center around tracking and replacing equipment that contains mercury.

Guadalupe River Watershed Mercury TMDL Update (Carrie Austin)
This is our third annual TMDL update, as called for in the Guadalupe River Watershed Mercury TMDL, adopted by the Board in October 2008. As planned, we started implementation of the TMDL at the top of the watershed by requiring mercury mine site owners to evaluate and report on the potential for mining waste to erode from their properties. We reviewed these reports and determined the appropriate next steps, as follows:

- Staff has drafted site cleanup requirements for the Guadalupe Rubbish Disposal Company and plans to bring them to the Board for consideration in the near future.
- Santa Clara County Parks and Midpeninsula Regional Open Space District submitted timely and acceptable reports on mining waste on their properties and have been readily complying with the TMDL's requirements. Both parties have grant-funded mine cleanup projects underway that staff will continue to work with them on.

The Santa Clara Valley Water District continued its voluntary methylmercury production and control studies, which it initiated in 2005. Solar-powered circulators were effective in suppressing methylmercury production at Lake Almaden, but not in the Almaden or Guadalupe reservoirs. Therefore, the District plans to install oxygenation systems in the two reservoirs. More information is available in the District's December 2011 biennial report, which is posted to our TMDL website.

The four entities discussed above have established a coordinated monitoring program, led by Santa Clara County Parks. Monitoring data gathered thus far is inconclusive regarding changes in mercury concentrations.

A cursory analysis of prey fish monitoring data shows that fish mercury concentrations were lower in reservoirs in 2011, as compared to 2004, but higher in Lake Almaden and creek sites. More prey fish monitoring is planned for 2012, partly to evaluate inter-annual variation in fish tissue mercury concentrations. More information is available in the January 2012 annual data report, which is posted on the TMDL website (http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/, click "Guadalupe River Watershed Mercury").

The Living Shorelines Project (Andree Greenberg)
The Living Shorelines Project is sponsored by the California Coastal Conservancy and follows recommendations from the Subtidal Goals Project (2010) to protect and restore San Francisco Bay intertidal and subtidal habitats and to expand versatile habitats along the existing shoreline to accommodate future sea level rise. This project's goal is to determine how to best restore and enhance shoreline habitats for eelgrass, native oysters, and other aquatic species.

The Living Shorelines Project consists of experiments to determine the biological and physical effects of different habitat enhancement methods and to assess substrate elements. Plots are located 250 meters from shore at two different locations in the San Francisco Bay; one at The Nature Conservancy site off San Rafael Bay in Marin County and the other at the Eden Landing Ecological Reserve on the eastern shore of South San Francisco Bay, near the San Mateo Bridge in Alameda County. Experimental treatments will consist of strategic placement of native eelgrass and oysters, and different arrangements of oyster shell bags, reef ball stacks, and reef castles (shaped like castles). Other materials required for the experiments include bamboo stakes, pre-cast concrete, temporary PVC pipe to hold the structures in place, and shells for native shellfish. About 895 cubic yards of these materials will be placed over 0.16 acres of open water and along 2,093 linear feet of shoreline.

Board staff's recent approval of water quality certification for the project includes conditions for monitoring. Monitoring will be conducted over the next 5 years with the intent of improving the understanding of the effectiveness of different habitat treatments on invertebrate, fish, and bird populations, and effectiveness of subtidal features in reducing water flow velocities, attenuating waves, and increasing marsh accretion.

Toxic Legacy of Dry Cleaning Solvents (Stephen Hill)
Past solvent spills from California's dry cleaning operations are starting to get the public's attention. On May 28, the local ABC-TV affiliate aired a news story about this issue ("PERC leaves toxic legacy state must pay for," see http://abclocal.go.com/kgo/story?section=news/assignment_7&id=8679666). "PERC" refers to tetrachloroethene (PCE), the chlorinated solvent still widely used by the dry cleaning industry.

The story quotes several Cal/EPA staff on the dry cleaner issue. Melanie Marty (Office of Health Hazard Assessment) notes that Cal/EPA is requiring dry cleaners to phase out PCE because it is a likely human carcinogen. Todd Thompson (State Water Board) notes that the Water Boards oversee more than 1,000 sites where dry cleaning spills have polluted soil and groundwater, threatening human health and the environment. Barbara Cook (Department of Toxics Substances Control) notes that the State will likely have to pay to clean up many dry cleaner spills because most dry cleaner owners and operators are "mom and pop" operations without the resources to pay for cleanup.

We provided the Board with a status report on dry cleaner spills in February last year (see http://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2011/February/02-09-11_Board_Meeting_Agenda.pdf and click the item 7 links). Dry cleaner sites are becoming a larger part of the Board's site cleanup program. They pose special challenges since they often involve

numerous owners and operators, and those parties often cannot afford to pay for needed cleanup. Our current regulatory programs and funding are inadequate to fully address this threat and this is something staff is working on as part of a Statewide Dry Cleaner Workgroup.

In recent years, the Board has adopted several site cleanup orders concerning dry cleaner spills, most recently the Hamlin Cleaners case in December 2011. We plan to bring a package of these orders to the Board this summer for a trio of dry cleaner spill sites in Fairfield.

In-house Training

Our May training comprised small-group staff field trips to several East Bay locations, with the goal of examining how our various programs interact and how they contribute to protecting and restoring water quality. Each of the 20 small groups went to one of five different locations: Redwood Creek, Lake Temescal, Oakland's Inner Harbor, a closed shoreline landfill known as Albany Bulb, and the former Naval Air Station now known as Alameda Point. The training concluded with a creative mix of posters, videos, sculpture, and sensory installations presented by staff on May 17 to showcase the field trip results.

Brownbag seminars included a May 31 session on vapor intrusion assessment (with a focus on USEPA's model often used to predict vapor intrusion impacts). We have no in-house training scheduled in June.

Staff Presentations

Castro Valley Unified School District held a Science Expo and Watershed Festival for third grade students on May 18. Approximately 950 students, representing 38 classes from 11 private and public elementary schools, met at Palomares Elementary School to see science exhibits from 29 organizations. Brian Thompson attended for the Water Board and used hands-on exhibits as shown in Figures 2a and 2b to teach students and teachers about reclaimed water, pollution from stormwater, and low-impact development.

Figure 2a. *Reclaimed Water Exhibit.*

Part 1:
Students learn what is behind the switches and knobs in their homes by trying to identify the different types of utility pipes found in their homes.

Part 2:
A 3-D diagram illustrates how the pipes transmit clean "Blue" drinking water, "Brown" wastewater, and treated "Gray" water, and the use of new "Purple Pipe" to reclaim treated water for non-potable uses instead of discharging it all to the Bay.

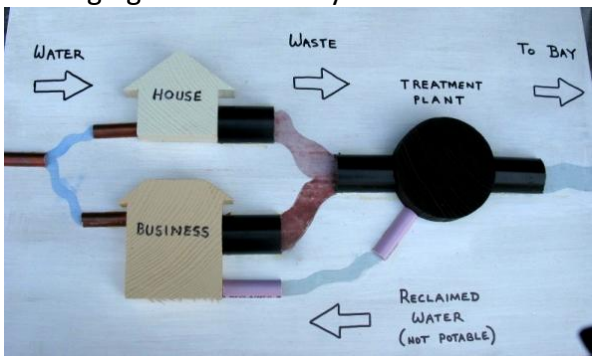

Figure 2b. *Stormwater Pollution and Low-Impact Development Exhibit.*

Part 1:
Students learn about stormwater pollution. This shopping center model contains drops of motor oil around matchbox cars and vegetable oil where people "walked their dogs", and confetti for trash. Water sprinkled from water cans washes the pollution into a scene of the Bay, and students discuss ways to prevent pollution.

Part 2:
The exhibit is changed in two ways to demonstrate the benefits of low-impact development in preventing stormwater pollution:

(1) the top layer of the exhibit is removed to reveal a similar parking lot but with landscaping (synthetic lawns and sand median strips) to help capture runoff and pollution;
(2) the downspout of a roof gutter is re-routed to a capture water sprinkled on the roof in a model rain barrel.

Recent Penalty Enforcement Complaints and Settlements (Lila Tang)
The following tables show recently issued proposed settlements and settled actions for assessment of penalties as of last month's report. There were no new complaints issued. All active cases are available at:
http://www.waterboards.ca.gov/sanfranciscobay/public_notices/pending_enforcement.shtml

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
Sonoma Valley County Sanitation District, in Sonoma	Discharge limit exceedances	$12,000	June 1, 2012
TRC Companies, Inc., in Concord	Discharge limit exceedances	$12,000	June 4, 2012
Blommer Chocolate Co., In Union City	Late annual industrial stormwater report	$4,000	June 4, 2012
City of Richmond, Wastewater Treatment Plant	Discharge limit exceedances	$18,000	June 8, 2012
City of Napa, Hennessey Water Treatment Plant, in St. Helena	Discharge limit exceedances	$39,000	June 11, 2012
Uni Tile & Marble, in Hayward	Late annual industrial stormwater report	$3,000	June 18, 2012
Novato Sanitary District, Wastewater Treatment Plant and collection system	Sewage overflows, other unauthorized discharges to San Pablo Bay and tributaries	$344,000	June 25, 2012

Settled Actions
On behalf of the Board, the Executive Officer approved the following settlements.

Discharger	Violation	Penalty	Supplemental Environmental Project
City of Redwood City, facility on Broadway	Discharge limit exceedance	$3,000	Not applicable
Lehigh Hanson West Region, in Oakland	Discharge limit exceedances	$21,000	Not applicable
Lehigh Southwest Cement Co., in Cupertino	Unauthorized discharge to Permanente Creek	$10,000	Not applicable

Settled Actions On behalf of the Board, the Executive Officer approved the following settlements.			
Discharger	Violation	Penalty	Supplemental Environmental Project
Berkeley Farms, in Hayward ; and Golden Gate Petroleum, in San Jose	Late annual industrial stormwater report	$2,000 each	Not applicable
Garda, in Oakland; Niles Machine and Tool Works, Inc., in Livermore; and Shamp Eckman Industries, in Richmond	Late annual industrial stormwater report	$2,500 each	Not applicable

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