

EXECUTIVE OFFICER'S REPORT: *February 2013*

A Monthly Report to the Board and Public

NEXT MEETING: February 13, 2013 WEBSITE: <http://www.waterboards.ca.gov/sanfranciscobay/>

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Lagunitas Creek Coho Salmon Celebration (Dyan Whyte)

On January 14, Chair Muller and I, along with Dyan Whyte and Leslie Ferguson, attended a Central Coast Coho Salmon Celebration in Marin County's Lagunitas Creek watershed. The event hosted by the National Marine Fisheries Service and the California Department of Fish and Wildlife highlighted the collaborative efforts of numerous agencies and stakeholders to protect and enhance the coho salmon population along California's Central Coast in the last 20 years. Our staff's active involvement in the Lagunitas Creek watershed dates to the 1990's when we commented on water rights permitting and started our participation on the Lagunitas Creek Technical Advisory Group that continues to this day. Since 2000, our staff has administered over \$3,000,000 in grants for the Lagunitas Creek watershed related to water quality, sediment reduction, and habitat enhancement projects. More recently, we have secured funding to initiate the technical work needed to support the development of a sediment TMDL for the Lagunitas Creek watershed.

Highlights of the post-celebration field tour of the watershed included 1) a stop along a tributary to Lagunitas Creek where State Water Board funding was used to install a culvert that allows for the passage of much needed gravel and cobble into stream system, and 2) the Giacomini wetland restoration project west of the town of Pt. Reyes Station, where levees were removed to restore wetlands that had been diked for agricultural use. The aerial view in Photo 1 shows the new Giacomini wetlands taking shape in 2009 as Lagunitas Creek flows out onto former dairy lands that now serve as a flood plain.



Photo 1. *The new Giacomini Wetlands in 2009.*

We recently received some exciting news that the Lagunitas Creek coho salmon numbers for this year are so far the highest seen in the last six years and just shy of the 17-year average. In the last two weeks, Marin Municipal Water District (MMWD) biologists observed what may be the last few coho redds of the season, bringing the total in the watershed to 239. Coho redds are spawning nests where salmon deposit their eggs in a stream. What makes this even more exciting is that it is unexpected. In 2011, MMWD documented a relatively small number of coho smolts migrating from Lagunitas Creek to the ocean. Typically, only 2-5% of these fish would survive to return to their natal stream and start the cycle again. As things now stand, an astonishing 10.3% of those fish have returned.

According to the Northwest Fisheries Science Center, ocean conditions were very good for coho salmon in 2012. Physical conditions improved and plankton were abundant, including the copepods and fish larvae that make up a coho salmon's preferred prey. Looking forward, the Center predicts that these favorable conditions will continue through 2013, which would be very good for Lagunitas Creek coho. If the coho currently in the ocean are surviving at a rate similar to what has been just observed, MMWD reports that we could see over a thousand coho salmon return in the fall. To find out more about the Lagunitas Creek watershed and our efforts to protect and enhance the fishery, stay tuned for the Lagunitas Creek sediment TMDL, which staff will be releasing for public review and comment this spring.

Enhanced Cleanup of Palo Alto Groundwater Solvent Plume (Michael Rochette)

In early February, I approved a cleanup plan for 844 East Charleston Road in Palo Alto. The cleanup plan calls for an expansion of the current cleanup system, which uses enhanced bioremediation to convert solvents in the contaminated groundwater beneath the site to harmless byproducts. The cleanup plan was submitted to comply with the Board's 2008 site cleanup order.

This site is located south of Highway 101 near San Antonio Road and the Palo Alto – Mountain View city limits. There is an historic landmark plaque at the site, noting that the first commercially-practical integrated circuit was invented at this location. Fairchild Instrumentation researched and developed semiconductors at the site from 1957 to 1967. From 1968 to 1989, Advalloy manufactured components for the semiconductor industry. In 1995, East Charleston, Inc., acquired the site and has leased the facility on the site for various commercial purposes since that time. These past operations have resulted in releases of volatile organic compounds (VOCs) to the soil and groundwater beneath the site. Groundwater contamination currently extends to the north, where it mingles with the former Ford Aerospace groundwater plume. Shallow groundwater VOC concentrations exceed drinking water standards but have not impacted any drinking water supply wells. Vapor intrusion investigations show that the subsurface VOCs have not impacted indoor air.

Groundwater cleanup began in 1999. A "pump and treat" system operated for three years. In 2002, this system was shut down and a pilot test was conducted to evaluate the use of enhanced bioremediation. A carbohydrate solution was injected into groundwater, where it acted as a food source for naturally-occurring microbes. These microbes consumed the carbohydrate solution and the VOCs, creating non-toxic byproducts such as ethane and ethene. The pilot test was successful and formed the basis for the cleanup plan.

The newly-proposed cleanup plan calls for enhanced bioremediation, a deed restriction, and continuation of the groundwater monitoring program. Enhanced bioremediation is intended to control the migration of VOCs and reduce VOC concentrations in groundwater. The site's responsible parties will inject the carbohydrate solution in two areas: the northern portion of the site and offsite to the north of East Charleston Road. The deed restriction will notify future owners of subsurface contamination; prohibit the use of shallow groundwater as a source of drinking water until cleanup standards are met; and prohibit sensitive uses, such as residential and daycare uses. The groundwater monitoring program will verify that the cleanup system is protecting human health and the environment and determine whether additional injections will be necessary in the future.

As an outgrowth of comments received, we added two conditions of approval to address concerns. One condition requires broader groundwater monitoring to assess the cleanup system's effectiveness. Another condition allows us to require additional cleanup or mitigation in the northwestern offsite area if a pending soil-gas investigation in that area shows a problem.

San Francisco Bay Confirmed a Global Treasure

Confirming its vital role in the natural health of the hemisphere, San Francisco Bay and its Estuary has been designated a "Wetland of International Importance" under the Convention on Wetlands of International Importance, also known as the Ramsar Convention. While this designation will not result in any new legally-binding protections for wildlife and habitat in the Bay, it does focus international attention on public and private stakeholders to step up wetland conservation efforts and may lead to additional funding for wetland restoration.

The San Francisco Bay Joint Venture, of which the Board is a part, announced the designation in concert with World Wetlands Day on February 2. The designation is based on science and is the result of nearly four years of work on the part of member organizations of the Joint Venture, which coordinates a number of public and non-profit agencies, landowners, and the business community to protect and restore the Bay's wetlands for migratory birds and other wildlife.

The Convention on Wetlands of International Importance is an intergovernmental treaty adopted in 1971 that provides a voluntary framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. The Convention is the only global environmental treaty that deals with a particular ecosystem and promotes the "wise use of all wetlands." The United States signed the treaty in 1987.

While the Bay is the 35th site in the United States designated a Wetland of International Importance, it becomes, at nearly 400,000 acres, the largest site so designated on the West Coast. Previously, Bolinas Lagoon (1998) and Tomales Bay (2002) were so designated in our region.

Staff Publications

Board staff Richard Looker and Carrie Austin, along with SFEI Senior Environmental Scientist and lead author Jay Davis and several others, published a paper in the November 2012 issue of the journal *Environmental Research*. This article, "[Reducing methylmercury accumulation in the food webs of San Francisco Bay and its local watersheds](#)," is one of several in the *Environmental Research* special issue [Sources to Seafood: Mercury Pollution in the Marine Environment](#).

This review paper focuses on the most promising avenues for attempting to reduce methylmercury contamination in Bay aquatic food webs and identifying the scientific information needed to support these efforts. The authors concede that controlling methylmercury in food webs is challenging because the available management strategies are difficult, expensive, modestly effective, slow to bear fruit, and challenging to monitor. The authors suggest that resource managers do what is currently feasible to manage methylmercury, consistent with the expectations of our San Francisco Bay mercury TMDL, but also remain attentive to novel control strategies that may become available in the future.

In-house Training

We had no training in January or February. Brownbag seminars included a January 29 webinar on emerging contaminants and a February 4 session on sea level rise, featuring NOAA Coastal Services Center's Sea Level Rise and Coastal Flooding Impacts Viewer, a computer program that

visually displays the local effects of sea level rise. It can be viewed by going to the following link and clicking the "Launch Now" button.

<http://www.csc.noaa.gov/digitalcoast/tools/slrviewer>

Staff Presentations

On January 10, Tom Mumley and I spoke at the annual meeting of the California Stormwater Quality Association, joining U.S. EPA's Alexis Strauss and the State Board's Tom Howard in updating the association on federal and State regulatory priorities for stormwater for 2013. I emphasized that, while much progress has been made in "on the ground" efforts to control stormwater runoff, both these efforts and the ongoing need to continue to improve the control of runoff are not broadly understood by local decision-makers and the public at large. Tom updated the association on our efforts to apply the requirements of the Board's 2009 Municipal Regional Stormwater Permit (MRP) to reducing trash and our plans to reissue the MRP in 2014.

On January 16, Stephen Hill, Chuck Headlee, and Mary Rose Cassa presented a regulatory update to the Bay Area branch of the Groundwater Resources Association (GRA). They focused on several topics:

- State Water Board's new low-threat closure policy for leaking underground fuel tanks and its implications in our region;
- Our region's pending update to our Environmental Screening Levels, a tool for quickly assessing soil and groundwater data for sites in our region;
- Challenges staff face to clean up dry cleaner spill sites in our region;
- Our region's priorities and performance measures in the site cleanup programs;
- Effects of last year's elimination of local redevelopment agencies on Brownfield restoration; and
- Salt/nutrient management plans for priority groundwater basins in our region, a component of the State Water Board's recycled water policy.

The audience of about 150 included environmental cleanup consultants, environmental attorneys, vendors, and dischargers. Our staff have been making this annual presentation for 20 years. This meeting continues to be the best attended meeting for this GRA branch and provides a useful forum for staff to interact with the regulated community.

On January 24, Naomi Feger and I made presentations at the annual meeting of the Bay Area Clean Water Agencies. I gave my perspective on the issues and priorities that the wastewater community should be focused on in the coming year, reiterating the need for the wastewater community to become more involved in regional efforts to increase water supply sustainability through recycling and to preserve shorelines and protect infrastructure through wetland preservation and enhancement. Naomi was part of a panel on nutrients in the Bay, focusing on our efforts to expand nutrient monitoring and to take a watershed approach to addressing nutrient impacts.

Penalty Enforcement Final Settlements (Lila Tang)

The following table shows settled actions for assessment of penalties as of last month's report. There are no current proposed actions. The first two listed settled actions are available at:

http://www.waterboards.ca.gov/sanfranciscobay/public_notices/pending_enforcement.shtml

Settled Actions			
On behalf of the Board, the Executive Officer approved the following settlements:			
Discharger	Violation	Penalty	Supplemental Environmental Project or Enhanced Compliance Action
California Department of Transportation, Isabel/I-580 Project, in Livermore	Unauthorized fill of Arroyo Las Positas	\$31,500	Not applicable
Mayhew Center LLC, in Pleasant Hill	Failure to timely provide site investigation information	\$14,300	Not applicable
McKesson Corporation, in Union City	Discharge limit exceedances	\$15,000	Not applicable
North San Mateo County Sanitation District, Wastewater Treatment Plant, in Daly City	Discharge limit exceedances	\$21,000	Not applicable
City of San Jose Successor of Redevelopment Agency, Adobe Phase II Cleanup, in San Jose	Discharge limit exceedances	\$9,000	Not applicable
Santa Clara Valley Water District, Santa Teresa Water Treatment Plant, in San Jose	Discharge limit exceedances	\$12,000	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