

California Regional Water Quality Control Board
San Francisco Bay Region
EXECUTIVE OFFICER'S REPORT

A Monthly Report to the Board and Public

November 2008

The next regular scheduled Board meeting is November 12, 2008.

See <http://www.waterboards.ca.gov/sanfranciscobay/> for latest details and agenda

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No Drugs Down the Drain Campaign (Heather Ottaway)

We hosted a "No Drugs Down the Drain" pharmaceutical collection event in the State building on October 8, and in 4 hours collected 47 pounds of unwanted medicines. Our event, organized with help from the East Bay Municipal Utility District and Teleosis Institute, was one of many medicine collection events held throughout California during a one-week state wide educational campaign October 4-11. We separated most of the pill bottles and paper packaging for recycling and sent the medicines we collected to be incinerated.

The intent behind the state wide campaign was to raise awareness about the issue of pharmaceuticals' persistence in the environment (including wastewater), to educate residents about their proper disposal, and to offer an interim disposal solution until a long-term solution can be identified. The campaign will provide important data and lessons learned to help the California Integrated Waste Management Board establish a model pharmaceutical take-back program for the State, as required by SB 966, recently signed into law.

WalMart Super Center in Suisun City (Jolanta Uchman)

A WalMart Super Center would be the flagship of an 18.34 acre commercial retail center proposed for development on a 20.8-acre parcel in eastern Suisun City. Local citizens and non-profit groups commented on the proposed project at the Board's Public Forums in

March and October 2008. The project would include the WalMart store, a sit-down restaurant, a gas station with a convenience store and automated car wash, over 1,000 parking stalls, and road and utility improvements. The Board is one of the agencies that must approve this project, as it would fill three acres of wetlands on the parcel, including 1025 linear feet of an on-site creek. As such, the Board must issue a federal Clean Water Act (CWA) Section 401 water quality certification that the project complies with State water quality standards.

Board staff received the project proponent's initial application for Section 401 certification on November 20, 2007. Since that time, Board staff have communicated applicable Board policies to the applicant and the City through comments on the project's CEQA documents and certification application, and on the U. S. Army Corps of Engineers' Public Notice, who must also permit the project once we have issued a certification. In addition to our written comments, staff have met three times with the applicant's representatives, including once at the project site.

The project as currently proposed does not comply with State water quality standards in that it proposes filling essentially all of the wetlands and surface drainages on the site without demonstrating that impacts to waters of the State have been avoided and minimized to the maximum extent feasible, as required by the Basin Plan, and it does not incorporate a low impact development planning approach as required by State Board Resolution No. 2008-0030.

We most recently met with the applicant's representatives on September 11 to discuss our August 2008 letter commenting on the certification application. In that letter, we indicated that the project's alternatives analysis as submitted did not present a proposal that constituted the "Least Environmentally Damaging Practicable Alternative." The August letter required the applicant to complete its application by submitting: (i) alternative project designs that avoid and minimize impacts to State waters and (ii) a stormwater management plan. During the September meeting, the applicant's representatives indicated that they now understood what they needed to address, and would re-evaluate alternative project designs and submit a revised alternatives analysis documenting avoidance and minimization of impacts to waters of the State.

CWA regulations require that the Board act on a Section 401 certification application within a year from the submittal of a valid application. The initial application received on November 20, 2007, remains incomplete at this time. If we do not receive a complete and acceptable application that addresses the issues raised at our September meeting within the next few weeks, we will need to deny the application.

At the Board's Public Forums, the citizen groups voiced numerous concerns about the proposed project, some of which relate to our policy and/or jurisdiction. The citizens have raised the following water quality-related concerns: the proposed filling of the waters of the State, an anticipated significant increase in runoff amount and pollutant loads from the project's new impervious surface into the local creek and Suisun Marsh, and the potential for exacerbating flooding in downstream residential areas. One of the citizen groups, the Suisun Alliance, filed a lawsuit in March against the City alleging violations of CEQA. The

litigation is still pending. Board staff plans to meet with representatives of these groups in mid-November to discuss their issues and explain our policies and regulatory jurisdiction.

Recently, a neighborhood resident sent an email documenting that a City work crew was clearing the parcel's on-site creek for flood control maintenance. Staff have no record of the City applying for, or obtaining the required Section 401 certification from the Board for this channel maintenance work. Staff is following up with the City to determine if this is an unpermitted activity. We will keep the Board apprised.

Alameda Creek Fish Kill (Habte Kifle)

On October 6, two days after the brief first-rain-of-the-year in the Bay Area, our enforcement staff responded to two spill reports. Early that morning, about 30,000 gallons of chlorinated, secondarily-treated wastewater was spilled from the Dublin San Ramon Service District's (DSRSD's) wastewater treatment plant in Pleasanton to adjacent Alamo Creek, a tributary to Alameda Creek. Separately, around noon, California Department of Fish and Game (Fish and Game) reported a fish kill of thousands of fish in Alameda Creek in Fremont. The fish kill was at Alameda County Water District (Water District) Dam #3, about 14 miles downstream of the DSRSD facility. While we initially assumed the two were connected, we have determined this is not likely, as discussed further below. The condition that caused the DSRSD spill in Pleasanton, an improperly installed pipe flange, was immediately corrected. We are working with Water District staff to ensure the conditions that led to the fish kill in Fremont will not recur.

Board staff inspected both incident locations on the day of and the day after the incidents. The DSRSD spill was caused by the failure of a newly-installed pipe flange that did not have its two sides securely pinned together. The problem was immediately fixed.



Given the significance of the Alameda Creek fish kill in Fremont, staff inspected the Fremont site on October 6, along with representatives from the Water District, Fish and Game, and DSRSD. Fish and Game staff estimated that there were about 5,000 dead fish in the 50 million gallon pool located behind Dam #3 on Alameda Creek. The dead fish were mainly freshwater sculpin and suckers, ranging from ½-inch to about 18 inches long. The fish kill appeared to have resulted from low dissolved oxygen (DO) in the pool. Field measurements that day

found zero DO in the middle of the pool and levels below 0.5 milligrams/liter (mg/L) across much of the rest of the pool. These are significantly lower than the Basin Plan's cold water objective of 7 mg/L. Other field measurements, such as pH, temperature, and conductivity, were in a safe range. Fish and Game staff also collected water samples to analyze for additional parameters, including pesticides, as part of the investigation.

The Water District diverts water from this pool to its nearby groundwater recharge zone. As a safety measure, the District has stopped diverting water until the fish kill investigation is completed. Within the week after the fish kill, the DO concentration in the pool increased to up to 10 mg/l, due largely to inputs of about 10 to 13 million gallons per day of high-DO water flowing into the pool from upstream on Alameda Creek.

What caused the depletion of DO to such a low level is still unclear, and the Water District is continuing its investigation. Based on our preliminary assessment, the spill from DSRSD likely did not have a significant role in the fish kill, although it coincidentally happened at the same time. This is because:

- The DSRSD spill of about 30,000 gallons was very small compared to the Water District pool volume of about 50 million gallons;
- The distance from the DSRSD spill in Pleasanton to the fish kill in Fremont is great (14 miles), so the DSRSD spill would likely have been diluted and fully oxygenated before it reached the pool in Fremont; and
- We did not observe indicators of significant environmental stress at Alamo Creek, at the point of, and immediately downstream of, the DSRSD spill during our inspections. The color of the water in Alamo Creek was normal, with healthy fish and tadpoles swimming and the presence of other aquatic insects.

The first rainstorm of the season may have discharged to the pool low-DO water and organic matter remaining in the storm drain lines over the summer that consumes oxygen. No other spills to Alameda Creek were reported that day, suggesting there was not a separate significant outside source of pollution. Thus, at present, the low-DO condition appears to be the proximate cause of the fish kill. This suggests that algal growth and die-off in the pool, combined with stratification over the summer and perhaps the low-DO inputs from the first storm, likely led to the low-DO condition and fish kill. Water District staff are closely working with our staff to fully investigate the source of the problem and implement an appropriate long-term solution. Such a solution is likely to consist of more intensive summertime monitoring of pool conditions, combined with readiness to quickly implement remedial management measures in the event low-DO or other poor conditions are observed in the future.

Cutbacks in LUFT Cleanup Cost Reimbursements (Chuck Headlee)

On October 23, the State Board's Underground Storage Tank (UST) Cleanup Fund manager announced that the Fund would be suspending reimbursement to 616 leaking underground fuel tank (LUFT) sites in California. Many of the affected sites involve small ("mom and pop") businesses. This State Board action will have the effect of slowing cleanup at many of these sites. These smaller businesses have limited cash flow and often wait for reimbursement of costs for one step in the investigation and cleanup process before they can afford to pay for the next step in the process.

To put this in perspective, the Cleanup Fund provides reimbursement of eligible cleanup costs at about 4,200 LUFT sites in California. Sites are placed in four different priority

classes based on financial need, with "A" being the highest priority and "D" being the lowest priority. The announcement affects only sites in priority class "C"; sites in "A" and "B" will continue to receive reimbursement, and sites in "D" will remain in a holding pattern. The 616 affected sites represent 37% of the roughly 1,660 sites in priority class "C".

The State Board's action is being taken because the Cleanup Fund will not be able to provide the same level of cost reimbursement as in prior years. First, the Fund started this fiscal year with a lower-than-usual cash balance. Second, the Fund expects significantly lower revenues this fiscal year. The Fund derives its revenue from a tax on each gallon of gasoline sold, and gasoline consumption has declined due to high prices and economic turbulence. In typical years, the Fund receives about \$200 million per year in gasoline-tax revenue.

A total of 94 of the affected LUFT sites are in our region; Board staff oversees 20 of them and the remaining 74 sites are overseen by local agencies. We and the local agencies will work with the affected dischargers, adjusting compliance schedules as appropriate. We will keep you informed of any additional, significant changes in this important cleanup-reimbursement program.

Enforcement - Pending Complaints (Brian Thompson)

The Assistant Executive Officers issued one administrative civil liability (ACL) complaint during the month of October with a notice for public hearing at an upcoming Board meeting. The ACL complaint proposes a fine of \$190,000 to the Vulcan Materials Company in Pleasanton (Alameda County) for violating the General Permit for Discharges from Aggregate Mining and Sand Washing Facilities to Surface Waters. A copy of the complaint can be found on our web site:

http://www.waterboards.ca.gov/sanfranciscobay/pending_en.shtml.

I have publicly noticed a Tentative Order setting Administrative Civil Liabilities for one case in which the Board's prosecution team and the discharger have agreed to a settlement. West Coast Aggregates, Inc., will pay a proposed liability of \$30,000 and complete a Supplemental Environmental Project (payment of \$160,000 to complete the Pilarcitos Lagoon Habitat Enhancement project) for alleged violations of the California Water Code, our Basin Plan, and the Industrial Storm Water General Permit. The Tentative Order can be found on our web site:

http://www.waterboards.ca.gov/sanfranciscobay/pending_en.shtml. I intend to issue the ACL Order if no significant comments are received within the 30-day comment period.

Giacomini Wetlands Restoration (Dale Hopkins)

On Sunday October 26, several Board staff joined more than 500 people on the shores of Tomales Bay in Marin County to watch the tide slowly make its way across the Giacomini Ranch for the first time in 60 years. The Point Reyes National Seashore and Point Reyes National Seashore Association hosted a celebration to mark the final levee breach at the Giacomini Wetlands Restoration Project, including a morning walk out across the former pasturelands to view the peak of the high tide, followed by an open house at the Seashore

headquarters. The open house featured a new video and slide show documenting this key phase of the project, as well as posters, publications, and speeches honoring the people and funders who made this project happen. The Board was one of the organizations thanked for contributing technical help and grant funding to this project.



Looking south over newly flooded pasture lands.



Visitors watch the tide coming in over the east pasture area.

A number of Board staff have been involved in this project for the past five years, providing technical guidance, environmental review, and permitting. The State Board is also supporting the project through a Proposition 50 grant that provides approximately \$750,000 for restoration activities. The actual wetland restoration began in 2007 and will continue through 2008. Construction has involved removing dairy barns and irrigation lines, scraping pastures and filling old manure ponds, removing the levees that were constructed to create the 550-acre Giacomini Dairy in the 1940's, creating new tidal channels, bank stabilization, and refuge areas for wetland birds and other species. The celebration was the culmination of many years of vision, dreams, and hard work by many people, and it was a thrilling experience to see this wetland begin to return to life. The Park Service will continue to monitor this site as wetland vegetation and animals return; already they are happy to see that the wetland plants, birds, and fishes are coming back home.

For further information, please see the National Park Service website at http://www.nps.gov/pore/parkmgmt/planning_giacomini_wrp.htm

Tesoro Golden Eagle Refinery (Vic Pal)

Tesoro Refining and Marketing Company (Tesoro) has owned and operated the Golden Eagle Refinery in Martinez since May 2002. The refinery, formerly called the Avon Refinery, processes crude oil into gasoline and diesel fuels, liquid petroleum gas, heating oil, and petroleum coke. The refinery began operations in 1913 and sits on approximately 2,200 acres in Martinez. The refinery also operates the Amorco wharf and terminal, a satellite facility located adjacent to the Benicia Bridge.

Tesoro and Texaco Downstream Properties, Inc. (TDPI) work cooperatively together as the Avon Remediation Team (ART) to identify and mitigate potential environmental impacts from historical operations conducted at the refinery. The Board adopted Waste Discharge Requirements (WDRs) in 2004, which required the refinery to close its fourteen inactive waste management units (WMUs).



Photo #1 – Unit Closure Preparation

The refinery used to operate on-site WMUs for the treatment, storage, and/or disposal of wastes from refinery operations. All inactive WMUs are currently undergoing closure (see photos). Each WMU ranges in size from one tenth of an acre to over 10 acres.

As required by WDRs, all of the WMUs will be closed with a cover that meets landfill standards. Wherever possible, impacted soils will be consolidated to a portion of the unit to minimize the cap footprint.



Photo #2 - A Closed WMU

The WMU identified as the Oily Water Canal is an unlined 2,300-foot long drainage canal that was used until 1990 to transport partially treated refinery wastewater. The canal is currently being closed. This process involves removing existing sludge material, importing clean fill, and capping the canal.

Six of the fourteen WMUs have completed the required capping. The remaining WMUs and the Oily Water Canal are at various stages of the closure planning and design

process. It is anticipated all of the WMUs and the Oily Water Canal will be closed by late 2011. ART will be working cooperatively with various agencies to obtain permits for the remaining units, which include coordination with the U. S. Army Corps of Engineers, U. S. Fish and Wildlife Service, Bay Conservation and Development Commission, Contra Costa Water District, and California Department of Fish and Game.

Closed Highway 237 Landfill in San Jose (James Carolan)

The Legacy America Center project is a 64-acre redevelopment project located on the closed Highway 237 landfill in the Alviso area of San Jose. The redevelopment project, which has been pre-certified for Leadership in Energy and Environmental Design (LEED) Gold Status, is unique in that a closed landfill has been redeveloped as a commercial business campus, 175-room hotel, and 25-acre open space preserve. Board staff have encouraged development on older closed landfills as a means to achieve productive land use and achieve better closure.

The Highway 237 landfill is an unlined non-hazardous waste landfill that was operated between 1962 and 1982. Wastes accepted consisted primarily of construction debris, including concrete, wood, and soil. The Board adopted Waste Discharge Requirements in 2001 to establish requirements for the proposed development at the landfill.

Formal closure of the landfill in preparation for redevelopment was completed in March 2002. The landfill closure activities included consolidation of wastes through excavation and relocation of landfill materials onsite and construction of the final landfill cap. Construction of the first two commercial office buildings is underway and anticipated to be completed in spring 2009 (Figure 1).



Figure 1

Development on top of the landfill required innovative design solutions. Board staff successfully worked with the developer's consultants to work out solutions that would protect the Board's interest. Issues such as protection of surface and groundwater quality, landfill and building settlement, landfill gas, subsurface utilities, protection of the integrity of the landfill cap, and landscape irrigation were key components of the development that were addressed.

To address settlement of the landfill materials, the buildings at the site will all be pile supported. A key design feature that enabled development of the site was the ability to install foundation piles through the landfill into underlying sediments in a manner that prevented damage to the piles as well as satisfy Board criteria for protecting water quality during and after pile installation at the landfill.

Other key design solutions at the America Center project include: (1) placing a five to seven foot thick vegetative layer in the development area to minimize the need to penetrate the underlying clay layer of the landfill cap during development construction activities and to provide additional rooting and irrigation depth for landscaping, (2) using flexible, thick-walled HPDE pipe for underground utilities, (3) using flexible joints and fittings for utility connections at the buildings, (4) using pavers, versus poured concrete slabs, to accommodate settlement at building entrances, (5) using a weather-based controller for the landscape irrigation system to minimize the introduction of excess water onto the landfill cover, and (6) constructing subdrains to the storm system for tree planting areas.

Final development of the site will be completed in phases based on anticipated real estate market conditions. An artist rendition of the final development is shown in Figure 2 below.



Figure 2

National Semiconductor Five-Year Review (Max Shahbazian)

In September, staff completed the five-year review of the National Semiconductor federal Superfund site in Sunnyvale and determined that the site's cleanup actions continue to be protective of human health and the environment.

We currently oversee twelve federal Superfund sites, and are required to conduct five-year reviews for these sites. This is the third five-year review for the National Semiconductor site. The original source of contamination at the site was 22 underground solvent storage tanks and acid waste sumps that were used to store chlorinated solvents. The tanks and sumps were all removed in the 1980s. The main chemical of concern in groundwater is trichloroethene (TCE). The TCE groundwater plume extends offsite in shallow groundwater about one mile to the north.

Groundwater extraction and treatment has been ongoing at the site since 1984. This system has significantly reduced TCE concentrations from 100,000 parts per billion (ppb) to 750 ppb. About 1,300 pounds of volatile organic compounds (VOCs) were removed from groundwater during the most recent five-year review period. Soil vapor extraction and treatment operated at the site between 1992 and 2005, when it was shut down due to declining effectiveness. About 4,000 pounds of VOCs were removed from soil during a similar period.

The efficiency of the groundwater extraction system is declining as concentrations within the groundwater plume have declined. National Semiconductor is now implementing alternate groundwater cleanup technologies, including chemical oxidation, enhanced biodegradation, and ozone sparging, to achieve cleanup standards more quickly than with groundwater extraction alone.

South Bay Science Symposium on Restoring Salt Ponds (Robert Schlipf)

The South Bay Salt Ponds Project team hosted a symposium on September 25 at San Jose State University. This symposium covered research and restoration activities in the South Bay. Speakers covered a range of topics, including: the effect of climate change on restoration, the impact of public access on wildlife, and the implications of adaptively managing former salt ponds to minimize mercury exposure to wildlife.

For this symposium, Board staff put together a poster to communicate the water quality challenges, in particular with dissolved oxygen, in managing former salt ponds for bird habitat. The poster described how the design of former salt ponds makes them conducive to excessive algae growth, which, in turn, depletes dissolved oxygen levels when algae proliferate in former salt ponds when the days get longer and hotter. To improve water quality, Board staff recommended that former salt ponds be restored to tidal marsh within the constraints of meeting habitat goals for birds and protecting human life and property in the South Bay.

In-house Training

In November we will have in-house trainings on two topics: annual health and safety refresher and enforcement. Brownbag seminars included an October 29 session on subsurface imaging of contaminants and a November 6 session on the linkage between nitrate/ammonium levels and phytoplankton productivity in the San Francisco bay and estuary.

Staff Presentations

Tom Mumley gave a presentation on October 15 at the Pacific Industrial and Business Association Annual Regulatory Conference in Foster City. He provided an overview and status of regulatory and water quality issues and efforts associated with water quality standards and total maximum daily loads development and implementation, stream and wetlands systems protection, NPDES wastewater and stormwater permits, site cleanup projects, and emerging pollutants of concern.

Bruce Wolfe made a presentation on the Board's current priorities to KB Home's Community Advisory Board in San Jose on October 17. In his presentation, he emphasized the many opportunities to work with the development community on measures to control stormwater runoff, address recently developed TMDLs, and minimize impacts to creeks and wetlands. He also made a presentation to the Joint Venture – Silicon Valley Network at the Joint Venture's kick-off of its Sustainable Building Initiative in San Jose on October 30. His presentation focused on the role of water sustainability in sustainable building, highlighting opportunities for water conservation, water reuse, and rainwater scalping, and the benefits of low-impact development in water sustainability.

Andree Greenberg, Robert Schlipf, Brian Wines, Shin-Roei Lee, and Wil Bruhns presented a poster at the CALFED Bay-Delta Conference in Sacramento (October 22-24) entitled *Restoring Salt Ponds to Wetlands in the San Francisco Bay*, which covered the Board's recently adopted order for the South Bay Salt Ponds, including Robert's poster *Maintaining Water Quality while Restoring South Bay Salt Ponds to Wetlands* presented to the South Bay Salt Pond Science Symposium on September 25, in addition to updates on the Napa-Sonoma marsh restoration of the north bay salt ponds.

On October 30, Terry Seward of the Groundwater Protection Division joined a staff member from the California Integrated Waste Management Board to give a presentation to a delegation from the Vietnamese Environmental Police Agency (VEPA). In Vietnam, the VEPA, formed in 2006, consists of 120 environmental policemen who are used to improve environmental protection in the country. Terry covered topics related to our State and federal environmental laws, enforcement, site monitoring, and site inspections.