California Regional Water Quality Control Board
San Francisco Bay Region

EXECUTIVE OFFICER'S REPORT

A Monthly Report to the Board and Public

March 2008

The next regular scheduled Board meeting is March 11 & 12, 2008.
*See **http://www.waterboards.ca.gov/sanfranciscobay/** for latest details and agenda*

Items in this Report (Author[s])

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US EPA Approves Mercury TMDL (Tom Mumley)

On February 12, the US Environmental Protection Agency approved the San Francisco Bay mercury water quality objectives and total maximum daily load (TMDL) that implements them. This is the final step in the approval process for the objectives and TMDL that were adopted by the Board via a Basin Plan amendment on August 9, 2006. The Basin Plan amendment can be downloaded from http://www.waterboards.ca.gov/sanfranciscobay/TMDL/SFBayMercury/bpa080906.pdf.

An outgrowth of the approved objectives and TMDL is that the Watershed Permit for municipal and industrial wastewater discharges of mercury to San Francisco Bay, which the Board adopted in November 2007, that implements the TMDL wasteload allocations for wastewater discharges became effective on March 1, 2008. This Permit supercedes all mercury requirements in existing permits and negates the need for mercury requirements in future permits. The Watershed Permit can be downloaded from http://www.waterboards.ca.gov/sanfranciscobay/Agenda/11-01-07/8/r2-2007-0077final.pdf.

Martinez Parking Lot Stormwater Retrofit Project (Matt Graul)

Recently Board staff received a very unusual progress report via email from a 10th grader on the status of a supplemental environmental project (SEP) funded by a portion of an administrative civil liability. It shows us how an SEP can result in tangible water quality improvements and public education benefits, especially for the next generation.

In early May 2007, the Executive Officer issued a complaint to the City of Martinez, proposing to assess administrative civil liability in the amount of $23,000. The complaint was issued for the City's failure to submit its 2004/05 annual report, as required by the Contra Costa Municipal Stormwater Permit. The City chose to implement an SEP in lieu of $20,000 of the civil liability. The SEP is to retrofit a City-owned parking lot with stormwater treatment to detain and filter runoff that is not otherwise required. The SEP also included a strong educational component involving students from a local High School. The project is on schedule for completion by September 2008. The email below from a student working on the project further demonstrates the direct educational benefits of the SEP.

"Dear Friends of the Martinez Parking-lot Retrofit Stake Holders,

My name is Tuesday. I am a student of the Environmental Studies Academy (which we call the ESA). I would like to inform you of the steps our class is taking to create awareness in storm water quality control.

For the past five months, we have been working with Tim Tucker, Martinez City Engineer, to come up with a biofiltration system for a parking lot located in downtown Martinez - one of the most busy areas in our growing community. Using the storm water C3 Guidebook, our dedicated group of students have developed different blue prints and ideas to redesign our parking lot to address storm water quality issues. We have narrowed down our plans little by little and have now come up with a pretty solid idea of what we will be implementing.

In addition, we are also working on two brochures, an interpretive sign, and a environmentally focused mural that will hopefully be featured on one of the walls surrounding the parking lot. Of course, our construction team has been working diligently on creating creative and effective ways to handle runoff. We will be starting construction in April, and be finished by May 1. We would be grateful to have your support as we continue to work on this project to address Storm Water Quality in our watershed.

Sincerely,
Tuesday Loerbs (10th grader)
Briones Environmental Studies Academy
614 F Street Martinez Ca 94553"

Guadalupe River Watershed Mercury TMDL (Carrie Austin)

A draft Basin Plan amendment and Staff Report for the Guadalupe River watershed mercury TMDL project is out for public comment through April 21. A testimony hearing is scheduled for the May Board meeting and an adoption hearing for the July Board meeting. The documents are on our website at http://www.waterboards.ca.gov/sanfranciscobay/TMDL/guadaluperivermercurytmdl.htm.

Stakeholders have played an important role in this project. Board and Santa Clara Valley Water District (SCVWD) staff co-chaired the Guadalupe Mercury Work Group. This group met from 1999 to 2006, and helped guide a nearly $1 million (from SCVWD) data

collection effort to support this TMDL. Work Group participants commented on the January 2006 TMDL Project Report, which incorporated findings from the data collection effort. Last November, staff conducted a CEQA scoping session.

Mercury is a problem in this watershed principally because the New Almaden Mining District, located in the headwaters, was the largest producing mercury mine in North America. Typical of the 19th century, waste management practices largely consisted of dumping roasted ores (calcines) into creeks for large winter storms to wash downstream. Consequently, fish downstream of the mining district continue to have extremely high mercury concentrations and are unsafe to eat. Fish from Guadalupe Reservoir contain the highest recorded fish tissue mercury concentrations in California.

The proposed TMDL project will establish new water quality objectives and TMDL targets consisting of methylmercury concentrations in fish that protect wildlife. Pound for pound, wildlife consumes more fish than humans. We demonstrate quantitatively that these objectives and targets also protect humans who consume watershed fish (assuming the same consumption rate as used in the San Francisco Bay mercury TMDL).

The TMDLs for mercury in the Guadalupe River watershed will be implemented in two phases, with targets to be achieved in 20 years. Staff will provide an annual progress report to the Board, and a comprehensive review of progress and prospects for achieving the TMDLs will be conducted at the end of the first, 10-year phase. Implementation starts with source control at the top of the watershed so that mercury discharges from upstream mine sites will be eliminated or significantly reduced before downstream projects are undertaken.

Although source control will help to attain the fish TMDL targets, source control alone will not make fish safe for wildlife to eat. This TMDL project anticipates that before the end of the implementation period, new methylmercury production controls in reservoirs and lakes will reduce methylmercury bioaccumulation both in the reservoirs and lakes, and downstream. As a proactive response to the mercury impairment, and in advance of this TMDL project, SCVWD is researching methods of controlling methylmercury production and bioaccumulation. For this and related reasons, SCVWD was the first recipient of your Watershed Stewardship Excellence Award in September 2006.

Hookston Station Groundwater Cleanup (Elizabeth Allen)

In mid-February, the Hookston Station responsible parties began active cleanup of solvent-contaminated groundwater at this Pleasant Hill site. Groundwater cleanup is proceeding on two parallel tracks, pursuant to the Board-adopted final cleanup order for this site. The first track involves chemical oxidation to address *deeper* groundwater; the second track involves a permeable reactive barrier (or PRB) to address *shallow* groundwater.

Starting on February 19, the responsible parties began injecting a chemical oxidant into the deeper B-Zone aquifer. This work is being conducted according to the Chemical Oxidation Remedial Design and Implementation Plan, which was approved by Board staff

in October 2007. Over 80,000 lbs of a chemical oxidant, potassium permanganate, will be injected in stages during the next several weeks. The oxidant causes a chemical reaction that reduces trichloroethene, the primary groundwater contaminant, to carbon dioxide and chloride ions.

Cleanup of the shallow A-Zone groundwater at Hookston Station will begin later this year, with PRB construction scheduled to start in June 2008. The responsible parties will first collect additional soil, soil vapor, and groundwater samples in the vicinity of Hookston Station and the Colony Park neighborhood to help them finalize PRB design. The PRB will chemically convert solvents to non-toxic byproducts as contaminated groundwater flows through the treatment zone. We will provide additional updates to the Board as the date for installation of the PRB draws closer.

Mare Island and Vallejo (Brian Thompson)

The Navy and the City of Vallejo have not come to terms on an agreement to transfer the remainder of Navy land at Mare Island (approximately 524 acres of the roughly 4,000-acre former military base). From the Navy's perspective in a letter dated January 16, "given the extreme differences that exist at this juncture, concluding the early transfer project at this time is prudent." A counter offer could come from the City of Vallejo and its consultant (Weston Solutions) to restart negotiations, but the likelihood of this happening is diminishing given the time and resources that went into negotiations thus far, the financial troubles that the City of Vallejo is facing, and since the status of cleanup sites in the early transfer agreement will change as cleanup work progresses.

Site Closure Strategies Symposium (Keith Roberson, Cleet Carlton, Alec Naugle, Kevin Brown, Brian Thompson)

On February 20 and 21, several Board staff attended a two-day symposium in Concord titled "Site Closure Strategies" organized by the Groundwater Resources Association (GRA) of California. Keith Roberson helped organize the symposium, which brought together state and federal regulators with industry representatives, consultants, and attorneys to discuss their perspectives about achieving case closure sites on contaminated sites. Lively discussion focused on regulatory policies, land redevelopment, future groundwater use, risk reduction, public involvement, and consideration of energy use and sustainability in the cleanup process.

Alec Naugle presented a preliminary draft tool, under development by our Board's Groundwater Committee, to help identify and close "low-threat" cases. Since 1995, the Board has used a similar tool to evaluate "low-risk" sites on petroleum contaminated sites. The current preliminary draft addresses sites where chlorinated solvents and other non-fuel pollutants have affected soil or groundwater. These contaminants are typically associated with dry cleaners, metal parts fabrication, and electronics facilities. On the last day, Stephen Hill participated in a panel discussion on site closure. The panelists addressed obstacles to site closure and perceived differences among regulatory agency approaches.

GeoTracker Enhancement and Upgrade (Chuck Headlee)

In mid-February, the State Water Board entered into a long-awaited contract to improve and enhance Geotracker, the agency's database for tracking site cleanup in California. We expect to see tangible improvements by the end of the year, and these improvements will be essential as the agency starts using performance measures in our program workplans.

Geotracker was established in the late 1990s in response to the MTBE groundwater contamination problem, and eventually became the common database for all the Water Boards' site cleanup programs. It was ahead of its time, in that it allowed nine regions and several dozen local oversight agencies to update site information on a single platform. Initial development and operation of Geotracker was done through an outside contract, but in 2004 the State Water Board decided to handle operations internally. The decision in mid-2007 to go back to the outside-contractor approach for Geotracker will allow State Water Board's IT staff to focus much-needed attention on the agency's other major database, CIWQS.

We expect to see significant improvements in Geotracker over the next several months. A first step will be to transition from hosting Geotracker at the State Water Board to hosting Geotracker 2.0 at the contractor's offsite "round the clock" facility. This transition will take several months. However, software upgrades, including use of Google maps, will be implemented over the near term so we can expect to start seeing some system performance improvements soon. State Water Board staff intend to meet regularly with cleanup program staff at all regions to better understand system requirements and get feedback on progress. Program roundtable meetings will play a role in this process.

GeoTracker is an essential tool for us in managing our cleanup sites. It allows staff to more efficiently handle large caseloads and quickly move cases to cleanup and closure. GeoTracker readily receives all data and case reports and correspondence, electronically. In addition to its other features, staff can use the GIS functions of GeoTracker to understand the spatial relationships between cases and other cultural and physical features. By doing so, we can assess cleanup program consistency across all Water Board offices.

GeoTracker makes site status instantly available to responsible parties, Water Board staff, the Legislature, and the public. The real estate industry uses GeoTracker extensively to comply with state and federal disclosure responsibilities.

There is a renewed and concerted statewide effort to create and track performance measures in all programs. GeoTracker 2.0 will be an efficient and effective database for tracking cleanup program performance, which will help us to guide program implementation and report our progress to the Legislature.

In-house Training

Our February training was on the interplay between land use and water quality. The training focused on the interplay in our stream protection and stormwater management programs, but pointed out linkages in all of the Board's various programs. Our March training will be on water recycling and the Board's role in encouraging and regulating water recycling. Brownbag seminars included a February 8 recap of our recent regulatory update to the Groundwater Resources Association (San Francisco Bay branch), a February 29 session on cleanup issues at dry cleaner sites, and a March 6 session on permeable reactive barriers (zero-valent iron design).

Staff Presentations

Bill Johnson gave a talk at CSU-East Bay on January 28 to a seminar series for college seniors in environmental science. He spoke about how we used environmental science when we prepared our mercury TMDL.

On February 7, Bruce Wolfe testified at the Joint Legislative Committee on Fisheries and Aquaculture hearing on the mothball fleet. His testimony focused on the reasons for the Board's concerns about the disposal and maintenance of ships in the fleet, the status of the Board's efforts to get the U.S. Maritime Administration to effectively dispose of and maintain these ships, and potential solutions to Board's concerns. Both the testimony and the Board's efforts were well received by Committee Chair Senator Pat Wiggins and the Committee and noted in subsequent press and TV reports. We will report further on the status of the mothball fleet in next month's EO Report.

In early February, Kevin Brown presented a talk titled "Surgical Removal of a Petroleum Hydrocarbon Hotspot" at the 10th California Unified Program Annual Training Conference. This conference was sponsored by the California CUPA Forum Board, CAL-EPA, State Water Board, Department of Toxic Substances Control, State Fire Marshal, and the Office of Emergency Services. Kevin's talk focused on the technical challenges of excavating petroleum contaminated soil from beneath an active service station facility. Highly contaminated soil at the site caused elevated contaminant concentrations to persist in shallow groundwater beneath the site. An auger/drill rig was used to safely and cost-effectively remove the contaminated soil, resulting in a significant post-excavation decline of hydrocarbon concentrations in groundwater. This type of soil remediation can quickly improve groundwater quality beneath a site and accelerate regulatory case closure.

On February 14, Janet O'Hara, Shin-Roei Lee, and Thomas Mumley attended a Contra Costa County City Managers' meeting in Walnut Creek. Shin-Roei gave a presentation on stormwater management and the Municipal Regional Stormwater Permit. As a result, staff were asked to go to Contra Costa County Mayors' Conference on March 6 to give a similar presentation and also to meet with a small group of Contra Costa County city managers on March 4.

On February 28, Elizabeth Allen participated in a panel discussion on the Board's environmental screening levels. The program was hosted by the Environmental Law

Section of the Bar Association of San Francisco and was organized by Dorothy Dickey. The panel discussed the recent revisions made to the screening levels as well as practical issues related to how the levels can be applied to the Board's oversight of cleanup of contaminated sites. The meeting attracted a number of environmental attorneys who advise dischargers at many of the cleanup sites we oversee.