

California Regional Water Quality Control Board
San Francisco Bay Region
EXECUTIVE OFFICER'S REPORT
A Monthly Report to the Board and Public

November 2007

The next regular scheduled Board meeting is November 1, 2007.

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

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State Board approves Napa River and Sonoma Creek Pathogens TMDLs (Tina Low)

The State Board approved TMDLs for pathogens in the Napa River and Sonoma Creek watersheds at its September 4 meeting. We were pleased to learn that, thanks to the work we have done with stakeholders in these watersheds, the State Board received no written or oral comments on either of these TMDLs.

Our Board adopted the Sonoma Creek Pathogens TMDL in June 2006, and the Napa River Pathogens TMDL in November 2006. Both TMDLs address potential problems caused by pathogen pollution and specify actions needed to prevent human and animal waste from entering creeks and streams in these watersheds.

Santa Clara Valley Water District's Dry Cleaner Study (Anders Lundgren)

The Santa Clara Valley Water District recently completed its "Study for Groundwater Contamination from past Dry Cleaner Operations in Santa Clara County". The study was funded in part with money from the State Board's Cleanup and Abatement Account. This Board, in October 2001, adopted a resolution supporting the District's request for \$70,000 from the Cleanup and Abatement Account for a study to assess the impacts to groundwater from dry cleaning operations in northern Santa Clara County. The District

used its own funds to include the southern part of its district (Gilroy, San Martin, and portions of Morgan Hill) in the study.

Dry cleaning operations normally involve the use of chlorinated solvents, which when released even in small quantities may potentially degrade large quantities of groundwater. The most prevalent solvent used for dry cleaning is perchloroethylene (PCE), a suspected carcinogen. Dry cleaning operations have improved this chemical handling over time, so we are more concerned about soil and groundwater contamination from older operations, especially those prior to 1990. Past dry cleaning operations discharged significant amounts of PCE to sanitary sewers as part of their wastewater stream, and some of this PCE leaked from sewer laterals and mains into groundwater. Similarly, the past practice of dumping solvent waste in landfills or directly to the ground continues to threaten groundwater quality today. A related consequence of soil and shallow groundwater contamination from past dry cleaner operations is the potential risk of intrusion of PCE vapors into occupied homes and businesses overlying former dry cleaner release sites.

The District's study catalogues the location and years of operations for current and former dry cleaning operations in Santa Clara County. It considers past dry cleaner operational practices, solvent usage, groundwater vulnerability, and municipal supply well vulnerability. Using this information, the study then ranks the potential threat to groundwater posed by current and former dry cleaners. The systematic ranking provides a means of prioritizing dry cleaner locations for further investigation. The study identifies a total of approximately 1,250 dry cleaning businesses which operated in Santa Clara County from 1946 through 2001. As of 2002 there were 224 operational locations in the County. The study identifies 77 dry cleaner locations that pose the greatest threat to groundwater, based on the ranking system.

Our staff is reviewing the study, and intends to use it to prioritize our oversight of dry cleaner locations in Santa Clara County. This office currently oversees some 20 dry cleaner cases in Santa Clara County, and we have closed another 15 dry cleaner cases. We will also publicize the study within our region and in other regions. The study approach can be used by other groundwater-management agencies to assess the threat posed by dry cleaners in their respective service areas. We will post the study on our website shortly.

Water Board Supports Brownfield Grant Requests (Randy Lee)

In early October, we issued four letters in support of Brownfield assessment and cleanup grant applications to the U.S. EPA for Brownfield projects proposed in our region. These grants allow cities and non-profit organizations to assess and clean up contaminated Brownfield sites, clearing the way for site reuse and community revitalization. Providing letters of support each year to worthy grant applications is one of several Water Board activities that encourage Brownfield cleanup and redevelopment. Following a competitive selection process, each grant applicant could be awarded up to \$200,000.

During the last grant cycle, the U.S. EPA awarded about \$70 million in Brownfield grants nationwide. A number of projects in our region have received these grants, totaling \$1.2 million.

South Bay Salt Pond Discharges (Robert Schlipf)

On September 4, three former salt ponds (A1, A5, and A7), returned to tidal influence as part of the initial stage of the south bay salt pond restoration, experienced a significant fish kill because of a severe depletion in dissolved oxygen levels. Respiration from dying algae appears to be the main cause for low dissolved levels in these systems. These ponds are managed by the U.S. Fish and Wildlife Service (USFWS). While other ponds managed by USFWS experienced lower oxygen levels in this period, the problem was most severe in the three aforementioned ponds, especially ponds A5 and A7. In ponds A5 and A7, USFWS discovered thousands of dead topsmelt, 15 striped bass, 20 bat-rays, and 25 to 30 leopard sharks; while in Pond A1, USFWS found five dead striped bass.

As we last reported in September 2005, the interim management of discharges from those former salt ponds that have been returned to tidal influence has posed challenges for water quality, particularly dissolved oxygen, due to algae proliferation in the ponds when the days get longer and hotter. USFWS has tried a number of corrective measures to improve oxygen levels. These include switching pond systems from directional flow to muted tidal, installing baffles, installing solar-powered aerators, and increasing flow through to reduce residence times. While some corrective measures (e.g., baffles, muted tidal) appear to have improved oxygen levels in some pond systems, the use of solar-powered aerators and attempts to increase flow through have not had discernible results because the ponds are too large for existing intake/discharge structures or a few aerators to have a meaningful impact.

Because the above corrective measures have not resulted in oxygen levels that are ecologically sustainable, USFWS will need to implement measures that are likely to be much more costly. At this time, USFWS is considering targeted algae harvesting, the use of more baffles, and the construction of internal levees to prevent algae build-up near discharge points. We remain concerned that the shapes and residence times of former salt ponds will continue to lead to unacceptably low dissolved oxygen levels unless USFWS improves water circulation patterns. We plan to work with USFWS this winter to (1) develop a monitoring protocol to better differentiate the severity of dissolved oxygen depletion between pond systems (e.g., do circulation patterns cause some ponds to accumulate more dead algae than others?), and (2) explore corrective measures (e.g., altering pond geometry to improve water circulation patterns) that can be implemented based on this monitoring to improve water quality. We will keep the Board informed of these efforts.

Caltrans Animal Carcass Disposal (Cecil Felix)

In late September, a local news station was tipped that Caltrans road crews had disposed animal carcasses into a ravine adjacent to Highway 9, west of Saratoga in Santa Clara County. In turn, the news station notified Board staff, which immediately inspected the

site. A small creek tributary to Stevens Creek runs through the site. During the inspection, staff observed conditions clearly indicating Caltrans' inappropriate disposal of waste, including the presence of deer and small animal skeletons, odors of decaying animals, orange Caltrans garbage bags, and other miscellaneous refuse. Although news reports suggested that pets were recently disposed at the site, staff saw none. Board staff sampled the creek running through the disposal site; based on the limited sampling, there currently are no significant impacts to the surface waters.

In October, two additional disposal sites were identified; one at the intersection of Interstate 280 and Edgewood Road in San Mateo County, and another in Sausalito at the intersection of Interstate 101 and Rodeo Avenue. Board staff determined, based on observations made during site inspections, that the disposal sites currently are unlikely to pose a significant threat to water quality.

Although Caltrans' official policy is to dispose animal carcasses cleared from roadways at landfills and animal rendering facilities, or to route them to the local humane society, it has been determined by Caltrans that their road maintenance crews were not following established protocols. Caltrans has placed the workers responsible for the improper animal carcass disposal on administrative leave.

Per Board staff direction, Caltrans immediately removed the animal remains from the three sites, conducted surface water sampling, and initiated an evaluation of its past and current disposal practices within the Region. Following these immediate action items, staff has drafted a Cleanup and Abatement Order (CAO). The CAO will require submittal of technical reports and workplans documenting implementation of the above action items and proposing additional work necessary to further remediate, monitor, and maintain the sites, and to prevent similar disposal practices from recurring. As additional information becomes available, staff will be considering pursuing additional enforcement against Caltrans. Staff will also coordinate enforcement efforts with those of other state and local agencies, including the county environmental health departments, county district attorneys, California Department of Fish and Game, and the California Department of Public Health.

Press Stories on NPDES Permit Violations (Dyan Whyte)

On October 12, 2007, the San Francisco Chronicle ran a story out of its Washington, D.C. bureau titled "Pollution pouring into nation's waters far beyond legal limits". The story cited a report by the community group U.S. PIRG that alleges that California has more large-scale NPDES permit violations than any other state and which identified NPDES permit violations for 20 Bay Region permittees. The perspective presented in the story is that "industrial plants and municipal wastewater facilities continue to flout the law because of insufficient policing by federal regulators" and "the Bush administration isn't doing enough enforcement of the Clean Water Act". Unfortunately, many of the violations cataloged for NPDES permittees in our region were in error, as was the inference that U.S. EPA, rather than the Board, directly regulates and enforces wastewater and industrial treatment plant discharges.

We have received a number of inquiries from local reporters following up on the story since it ran. This has given us an opportunity to review each referenced permittee's compliance and enforcement history and describe that history to the press. We were pleased to see that we have addressed all significant violations or are in the process of being addressed. More importantly, all permittees' followup preventative actions to minimize the potential for further violations have either been taken or are scheduled to take place. A number of these actions include capital improvement projects and facility upgrades. The top priority of our NPDES permit program is to enforce compliance with permit discharge requirements. However, what is noteworthy, yet often not publicized, is that the number of permit violations is a very small percentage of all discharge samples analyzed - far less than 1%. The local press has been receptive to our message.

Recognizing the 35 year anniversary of the Clean Water Act that initiated the NPDES permit program, the Chronicle story calls into question how much progress has been made to improve our nation's waters and what else can be done. Here in our region, the Regional Monitoring Program's annual meeting last month focused on this theme as well, and offered a different perspective, illustrating the significant improvements in wastewater treatment and pollution prevention since the NPDES permit program began, resulting in large reductions in pollutant loads to the Bay. This year's Pulse of the Estuary, the annual report of the Regional Monitoring Program, also provides a thoughtful and comprehensive analysis of progress made in protecting and restoring the Bay over the last 35 years of our implementation of the NPDES permit program.

Perchlorate MCL Adopted (Keith Roberson)

The State of California has adopted a Maximum Contaminant Level (MCL) for perchlorate in drinking water. The MCL is 6 micrograms per liter or 6 parts per billion (ppb). The MCL is equal to the Public Health Goal set by the State's Office of Health Hazard Assessment in 2004. The MCL was adopted on September 18, and took effect on October 18, 2007.

California is the second state to adopt an MCL for perchlorate. Massachusetts established an MCL of 2 ppb. The U.S. EPA has not yet decided whether to regulate perchlorate at the national level, but has proposed a preliminary remedial goal of 24.5 ppb at Superfund sites. U.S. EPA continues to evaluate perchlorate impacts.

Perchlorate impacts within Region 2 are minimal compared to impacts in Southern California. The San Francisco Bay Region contains only one major perchlorate release site, the United Technologies Corporation (UTC) in southeast San Jose. The current Site Cleanup Requirements order for the UTC site (adopted in May 2004) set a groundwater and surface water perchlorate cleanup standard at 6 ppb, so the new perchlorate MCL is consistent with that standard and will not affect the cleanup work being performed at the UTC site.

San Lazaro Investigation (Nathan King)

Good progress is being made on the San Lazaro Avenue site investigations in Sunnyvale after the Board imposed administrative civil liability (ACL) against two dischargers at its

September meeting. At 162 San Lazaro Avenue, the owner, Mr. John Travis, submitted a completed investigation report and an acceptable workplan for an additional investigation. At 154 San Lazaro Avenue, the owner, Mr. Don Medeiros, submitted an acceptable investigation workplan, and the completion report is expected in December. Mr. Medeiros requested a payment schedule for his ACL based on financial hardship. The Water Code requires ACL payment within 30 days, although we have enforcement discretion in the event of late payment. As such, I informed Mr. Medeiros that I would not initiate a collection action against him for the ACL provided he completed payment of the ACL in three installments over a five-month period ending in mid-February 2008. We received the first installment from Mr. Medeiros earlier this month.

Sunnyvale Town Center Mall Redevelopment (Nathan King)

The interim cleanup plan for this redevelopment is currently out for a 30-day public comment period. The plan consists of soil vapor extraction and treatment for tetrachloroethene (PCE) contamination at the site caused by three former dry cleaners.

The 32-acre site in Sunnyvale was initially developed for residential and commercial uses in the early 1900s. The dry cleaners operated at the site in the 1950's through the 1970's. The structures at the site were demolished to allow for the construction of the former Sunnyvale Town Center Mall, which opened in 1978 and closed in 2003. The City of Sunnyvale Redevelopment Agency and the Downtown Sunnyvale Mixed Use LLC (the project developer) have entered into an agreement to redevelop the site. The redevelopment project involves the demolition of the former mall and construction of various commercial, retail and residential buildings, parking, and associated infrastructure and amenities.

Environmental investigations have found PCE in soil, soil vapor, and groundwater at the site. The dry cleaners used PCE as their cleaner solvent. Investigations are ongoing to define the full extent of the contamination. After operation of the interim cleanup plan for several months, the City and the developer will propose a final cleanup plan with the hopes of completing cleanup by the end of 2008. We anticipate doing greater-than-average public participation activities for this site, given its size and the degree of local interest in the redevelopment project.

Status of Cleanup at Unocal/Arco Site, 401/411 High Street in Oakland (Cleet Carlton)

The dischargers at this former bulk-fuel terminal have made progress on the site investigation tasks specified in the Board's 2006 site cleanup order, but the work is about seven months behind schedule. We have issued a Notice of Violation to Arco as a result of its deficient site-investigation report.

Unocal and Arco operated bulk-fuel terminals and released petroleum and VOCs at these two adjacent sites on the Oakland Inner Harbor Tidal Channel. They have been conducting site investigations and cleanup under Board oversight since 1983. In December 2006, the Board amended the site cleanup order for the two sites, to require the dischargers to complete site investigation tasks and submit draft cleanup plans.

The dischargers have complied with the initial tasks in the amended site cleanup order. Both Unocal and Arco submitted site investigation workplans by February 2007 and both submitted site investigation results by June 2007. However, data gaps remain at both sites for various reasons (e.g. access constraints, equipment limitations). In late August, we conditionally approved the Unocal site investigation report, on the condition that it fills the data gaps by January 15, 2008. At the same time, we issued the Notice of Violation to Arco, due to more substantial data gaps in its report and several misleading assertions regarding other potential sources of contamination.

At this point, both dischargers are working to fill their remaining data gaps. We anticipate receiving the additional site investigation results by January 15, 2008. Delays at the site investigation stage will cause delays in cleanup plan submittal, since the cleanup plan relies on a comprehensive picture of site contamination. We have approved Unocal's and Arco's request for a seven-month delay in submittal of their draft cleanup plans, from October 15, 2007, to May 15, 2008. Our approval does not formally change the October deadline but indicates that we will use our enforcement discretion in this situation. However, a failure to submit adequate site investigation results in January could result in further enforcement.

Public Workshop on Mercury in the Guadalupe River Watershed (Carrie Austin)

After nine years of work with a very active group of engaged stakeholders in the Guadalupe River watershed, home of the historic New Almaden Mercury Mine, we are happy to announce a CEQA-scoping meeting and informational public workshop explaining proposed new mercury water quality objectives for water bodies in this key watershed, and a mercury TMDL and implementation plan to attain the objectives. The meeting will be Thursday, November 8, at the new Martin Luther King, Jr. Library in downtown San Jose, 150 E. San Fernando at S. 4th St., from 7 to 9 pm.

The CEQA-scoping meeting, which will follow the informational workshop, will focus on potential environmental impacts of foreseeable actions to implement the TMDL. Following the meeting, we will prepare a draft Basin Plan amendment and supporting staff report to establish the proposed water quality objectives, TMDL, and implementation plan. We plan to distribute the Basin Plan amendment package for public comment this winter and present it to the Board for its consideration in spring 2008.

The official public notice for the workshop and scoping meeting, and project reports, are posted on our website at <http://www.waterboards.ca.gov/sanfranciscobay/TMDL/guadaluperivermercurytmdl.htm> .

Second Nanotechnology Symposium (Adriana Constantinescu)

On October 3, Board staff members Adriana Constantinescu and Barbara Sieminski attended the Second Nanotechnology Symposium organized by the Department of Toxic Substances Control as part of Cal/EPA's involvement in understanding and communicating the environmental, social, and ethical implications of nanotechnology.

The term 'nanotechnology' refers to the conduct of engineering and applied science at an ultra-small scale - in a size range more than 10,000 times smaller than the diameter of a human hair. The unique physical, chemical, and biological properties of materials at the nanoscale enable novel applications and functions with the potential to promote enormous societal and economic benefits. For example, nanotechnology has been used in the electronics and information technology industries, where certain minimum feature sizes of semiconductor devices has been at the nano-scale for several decades. Nano-materials are introduced in several consumer products such as cosmetics, food and clothing, like stain-resistant pants and shorts with built-in sunscreen. However, many nano-materials are highly durable, meaning that they could remain in the environment long after the products are disposed of. This longevity could lead to potential harmful impacts to the environment.

The symposium featured some of the leading nanotechnology researchers and technical experts in the United States. Their presentations showed that nano-toxicology is in its infancy and there are usually insufficient data to support risk assessment for nano-materials and to determine levels that could impact the environment. Board staff will continue to monitor nanotechnology as it evolves, and evaluate its potential impacts to water quality.

In-house Training

Our October training was on contaminated sediment management. Our November training will be on computer topics (Microsoft Word and Excel software use). Recent Brownbag seminars have included: a September 19 session on linkages between land use decisions and protecting beneficial uses of our waters (with Rainier Hoenicke, SF Estuary Institute), a September 26 session on public speaking (with representatives from the Oakland City Center Toastmasters Club), and an October 30 session contrasting the way the USA and the European Union address the potential environmental effects of various products (with Mark Shapiro, writer and reporter associated with the Center for Investigative Reporting).

Staff Presentations

On September 19, Shin-Roei Lee was a panel speaker on Troubled Water, a public meeting conducted by Assemblywoman Loni Hancock. The other speakers on the panel are Harold Gilliam, Author and Retired San Francisco Chronicle Reporter, David Lewis, Executive Director of Save the Bay, and Sejal Choksi, Director of Programs of BayKeeper.

On September 20, several Board staff attended an early evening "meet your regulator" session hosted by the Bar Association of San Francisco, including Dorothy Dickey, Yuri Won, Dyan Whyte, Lila Tang, Stephen Hill, Mary Rose Cassa, and Anders Lundgren.

On September 27, Carmen Fewless and Wil Bruhns spoke to the Bay Delta Resource Conservations Districts' meeting in Point Reyes Station. Staff discussed the proposed waiver for grazing activities in the Tomales Bay watershed.

At the Water Environment Federation's Annual Technical Exhibition and Conference in San Diego in mid-October, Richard Looker addressed representatives of wastewater treatment agencies from around the country on our SF Bay Mercury TMDL and new fish tissue objectives for San Francisco Bay. Richard's panel discussion, part of a day-long workshop on regulating mercury, included speakers from U.S. EPA, State Board, the San Jose/Santa Clara Water Pollution Control Plant, and consultants.

Regional Monitoring Program (RMP) Annual Meeting on October 2: In keeping with the theme of the meeting, *San Francisco Bay 35 years after the Clean Water Act*, Tom Mumley gave a presentation titled *The Regulatory State of the Bay: A Status and Trends Review*, which included an historical perspective of changes to the Basin Plan, the emergence of the RMP, and the call for Total Maximum Daily Loads (TMDLs) that has led to our actions to establish TMDLs and new water quality objectives. Bruce Wolfe participated on a panel that discussed present and future challenges for San Francisco Bay still facing us after these 35 years. Dr. Mumley also wrote an article with the same title of his presentation that is included in this year's *Pulse of the Estuary*, the annual RMP report. The *Pulse* features other articles that provide a historical perspective on progress in improving water quality in the Bay since the federal Clean Water Act was signed in 1972. Copies of the *Pulse* can be downloaded from <http://www.sfei.org/rmp/pulse/index.html>.

On October 2, Dale Hopkins, Watershed Management Coordinator, was part of a four-person panel at the California Chapter of the American Planning Association (CCAPA) conference in San Jose, discussing the topic of "Effective Community Engagement through Watershed Councils". Other panelists included the past chair of the Tomales Bay Watershed Council, the executive director of the Stevens and Permanente Creeks Watershed Council, and a senior project manager from the Santa Clara Valley Water District. Panelists noted that managing watersheds presents public policy questions that generate strong public feelings, require imaginative and complex solutions, and call for cooperation between jurisdictions. Watershed councils can help the planning process by functioning as an established forum where planners and community members can participate with equal standing in a way that increases community capacity to identify issues, and resolve planning problems. As regulatory and societal drivers increasingly support a watershed management approach (for example, TMDLs, flood control, and stormwater hydromodification plans), watershed councils can provide a place and process for successfully addressing these issues through collaborative problem solving.

Following up on the Board's presentation of the 2007 Dr. Teng-chung Wu Pollution Prevention Awards at its September meeting, Bruce Wolfe was invited by East Bay MUD to make a presentation of the award directly to the East Bay MUD Board at its October 9 meeting. In his presentation, Mr. Wolfe recognized East Bay MUD's long-term leadership in pioneering many pollution prevention initiatives and the benefits of implementing these initiatives in partnership with stakeholder groups.

On October 9, Shin-Roei Lee gave a brownbag presentation to staff at San Francisco Estuary Institute on urban runoff management and streams and wetlands protection.

On October 12, Mary Rose Cassa (Toxics Cleanup Division) and Carolina Silva (NPDES Division) represented the State Water Board system at San Francisco State University's Fall Career Expo. This event encourages students to start thinking about what they will do after they graduate, and provides an opportunity for them to begin the job-search process. Mary Rose and Carolina spoke with about 34 students, explaining the work we do and encouraging them to begin the process to apply for a state job. Carolina learned about an internship in our NPDES Division at a similar SFSU job fair in 2005, and her experience helped her obtain a high rating on the employment exam and subsequent hiring interview. She has been working full-time for the Board since June 2007.

State of the San Francisco Estuary Conference on October 16, 17, and 18: Several staff gave presentations or chaired sessions at the 8th Biennial State of the San Francisco Estuary Conference that had over 700 attendees. Throughout the conference, presenters focused on the value of the estuary as a natural resource, noting recent successes, current challenges, and challenges for the future (such as population growth, emerging pollutants, invasive species, and climate change).

Tom Mumley chaired a session on *Important Changes in the State of The Estuary: Progress on Management Issues*. In this session Dr. Mumley gave a presentation titled *The State of the Estuary Reflected in the 2007 CCMP: Significant Revisions Based on Successes to Date and Current and Future Challenges and Opportunities*, and Richard Looker gave a presentation titled *Pollution Prevention and Reduction: Familiar Foes and Emerging Enemies*.

Andree Breaux co-chaired a session on *Integrating Ecological Restoration into Watershed Management: Biodiversity, Flood Protection, Recreation, Pollution Prevention & Water Supply in the San Francisco Bay Region*. In this session, Bruce Wolfe gave a presentation titled *Regulatory Efforts to Manage and Integrate Pollution Control to Protect Water Quality, Wetlands, and Streams in the San Francisco Estuary*, emphasizing the multi-objective approaches the Board is taking in managing the estuary's water quality.

As part of a session on *Wetland Restoration*, Naomi Feger gave a presentation titled *Sediment - The Good, the Bad and the Buried: Reuse of Dredged Sediments, Cleanup of Contaminated Sediments and Creative Wetland Restoration Solutions*. Shin-Roei Lee participated in a panel discussion session titled *Agencies Working Together - Focusing Our Vision on Smart Growth*. Tom Mumley co-chaired a session on *Urban Pollutant Challenges & Solutions*