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

EXECUTIVE OFFICER'S REPORT: *December 2016*

A Monthly Report to the Board and Public

NEXT MEETING: December 14, 2016 **WEBSITE:** http://www.waterboards.ca.gov/sanfranciscobay/

Items in this Report (Author[s])

Educational Workshops for Dairies (Laurie Taul)

On November 2 and 3, the California Dairy Quality Assurance Program (CDQAP) hosted another set of educational workshops to assist dairy producers in understanding and complying with the Board's recently renewed Conditional Dairy Waiver. The CDQAP workshop curriculum familiarizes dairy producers with the requirements of the Waiver, best management practice options to achieve regulatory compliance, and surface and groundwater monitoring procedures. In addition, it provides producers with tools and templates that can assist them with record-keeping for regulatory compliance purposes and farm management.

These workshops, held in Petaluma and Point Reyes, focused on developing a facility monitoring program, completing portions of the waste management plan (due November 2017), and learning about specific record keeping requirements. Next spring, additional workshops and drop-in sessions will focus on facility design, calculations for retention pond capacity, flood protection, and operation and maintenance plans. Twenty-four of the forty-six dairies that operate in our Region are participating in these educational workshops.

Prosperity Cleaners Update (Ralph Lambert)

The former Prosperity Cleaners site is located in the Marinwood Plaza shopping center in Marinwood, Marin County. Releases of tetrachloroethene (PCE) from past dry cleaning operations impacted soil, soil vapor, and groundwater. The Board adopted a cleanup order for the site in 2014, which sets a schedule for completing site investigation and cleanup. The discharger has previously conducted cleanup at one of two onsite PCE source areas. A December 2015 cleanup plan proposed soil excavation at the second "hot spot" located under the former dry cleaner building.

Since my September 2016 Executive Officer Report item, there have been several new developments for this site. The discharger has experienced delays in performing the proposed soil excavation under the building. Two preliminary tasks – asbestos abatement and building demolition – need to be completed before the soil excavation can occur. Correspondence from the discharger earlier this fall stated that asbestos abatement, building demolition, and soil excavation would be completed in October. This was then delayed to November upon the discovery of more significant asbestos abatement needs. At this time, it is unclear when the building demolition will be started. On November 21, we issued a letter requiring the submittal of twice-per-month status reports for the onsite cleanup work. The soil excavation completion report is due on February 1, 2017, and the discharger has not requested an extension.

Regarding the offsite plume of contaminated groundwater from the site, Board staff completed its review of the discharger's groundwater cleanup plan (Remedial Action Plan Addendum #3), which recommended "monitored natural attenuation" to address PCE contamination. We met with representatives of the discharger, offsite landowners, and Marinwood residents to discuss Addendum #3. On October 27 we rejected Addendum #3 on the grounds that it would not clean up the offsite groundwater quickly enough. We did not extend the September 1 deadline for Addendum #3 and urged the discharger to submit an acceptable cleanup plan as soon as possible. On November 22, the discharger submitted a revised Addendum #3, which recommends active groundwater cleanup using enhanced bio-degradation. The recently proposed approach would involve injecting a substrate that will promote biological treatment of the PCE along several rows of subsurface injection points. This recommendation appears to address our earlier objections. We will provide an opportunity for public comment before acting on the revised Addendum #3.

Also in the offsite area, the discharger recently completed the required delineation of the extent and magnitude of groundwater contamination. The discharger used "grab groundwater" samples for initial delineation and recently installed five additional groundwater monitoring wells. The monitoring wells will allow us to observe changes in PCE concentrations over time in response to groundwater cleanup activities.

We will update you in the future on this case as circumstances warrant.

Cleanup at Castro Valley Fuel Site (Barbara Sieminski)

In mid-November, Board staff approved a cleanup plan for Xtra Oil (dba Shell), a leaking underground fuel tank site in Castro Valley, Alameda County. Earlier cleanup actions removed most fuel contamination onsite, and this cleanup plan focuses on an offsite area that still needs to be addressed. Offsite contamination is posing a vapor intrusion threat to several residences, and cleanup in this area will obviate the need for recent vapor-intrusion mitigation measures.

The Xtra Oil site is located at 3495 Castro Valley Road in Castro Valley. Soil and groundwater beneath the site are significantly impacted by petroleum hydrocarbon leaks from the site's former underground storage tanks that were replaced in 1992. Several environmental investigations were conducted to determine the magnitude of these impacts. Up to four feet of petroleum free product was initially present on groundwater beneath the former dispenser area. Free product was removed, with only traces of free product remaining onsite. In 2007, groundwater extraction and treatment was initiated to remove the contamination source and

to control plume migration. However, hydrocarbons had already migrated offsite via groundwater, mostly along preferential paths, to the southwest of the gasoline station and beneath a residential area at Redwood Court.

In the summer 2015, free product was encountered on shallow groundwater at the western end of Redwood Court (see Figure 1 for the site map). Free product removal was immediately initiated. Twice-weekly monitoring of offsite cleanup and observation wells is conducted to ensure that free product gasoline is not present.

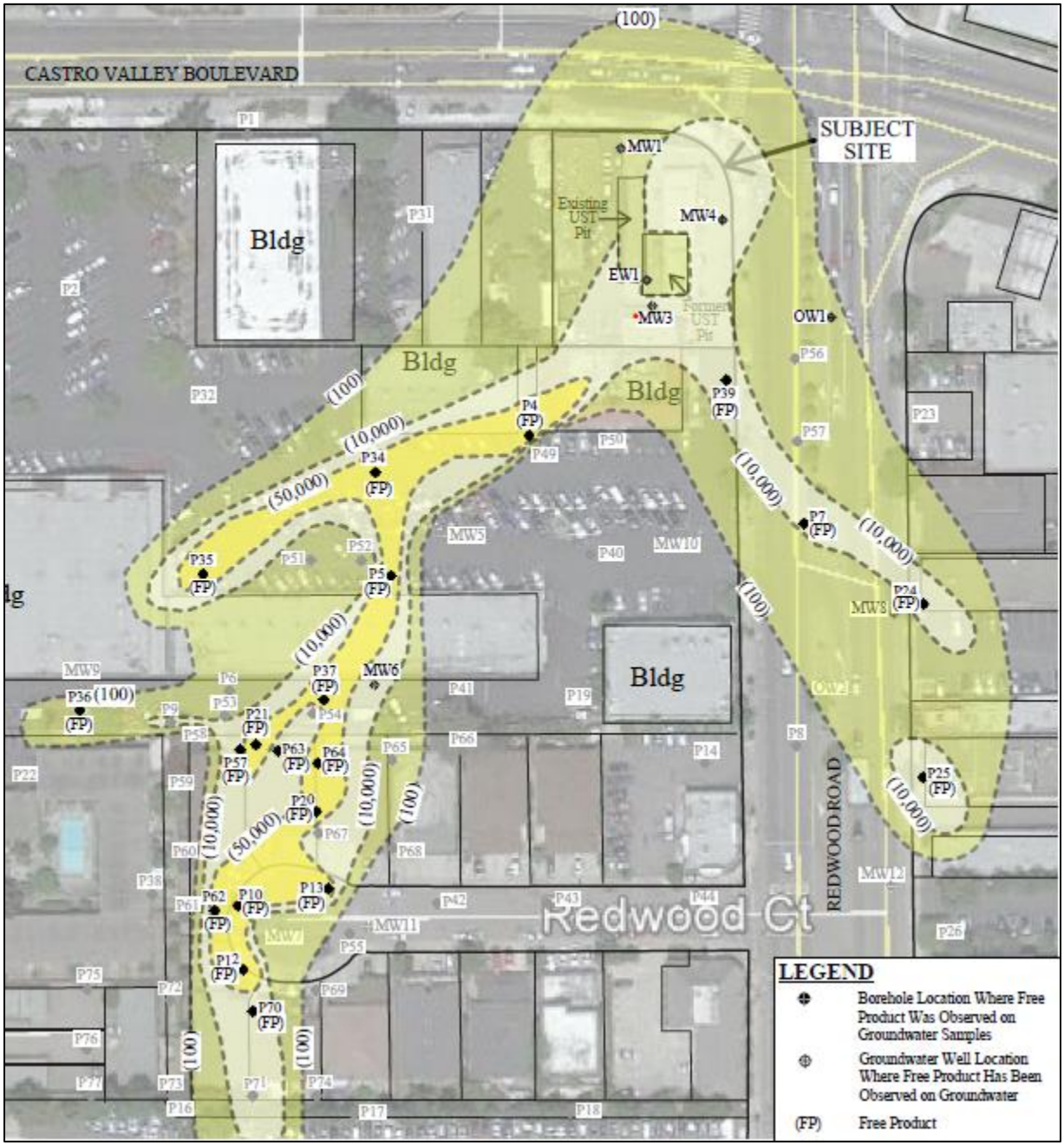

Figure 1. *Site vicinity aerial photograph detail showing free product on groundwater samples and gasoline groundwater contours*

In late 2015, vapor barriers were placed beneath four buildings with crawl spaces at Redwood Court to reduce vapors from entering the spaces under the buildings. Cracks discovered in the

floor of a garage were also sealed. Followup testing of air beneath the buildings indicates that the vapor barriers have successfully reduced the vapor concentrations. In 2016, the discharger installed air filtration units in the ground floor apartments in two buildings without crawl spaces. Followup indoor air sampling confirmed that the air filtration units were effective in reducing the vapor concentrations. Periodic air sampling is conducted in crawl spaces and ground floor apartments to confirm the effectiveness of the vapor barriers and filtration units in reducing vapor concentrations in these two residential buildings. However, a more comprehensive approach is needed to fully clean up the offsite area.

In August 2016, Xtra Oil submitted a cleanup plan for Redwood Court. In mid-November, following a public comment period, we approved this plan, which consists of three elements:

1) Groundwater cleanup: Three horizontal wells will be constructed to remove groundwater and free product from beneath the homes in the northwestern portion of Redwood Court. Sloped wells will drain contaminated groundwater and free product to a liquid collection sump. Contaminated groundwater will be discharged to the sanitary sewer under a permit. Free product will be collected in a holding tank and periodically removed for disposal at an approved offsite facility.

2) Soil vapor cleanup – feasibility test: Once the horizontal wells have removed groundwater contamination from beneath the homes, soil vapor extraction feasibility testing will be conducted using the horizontal wells to remove petroleum vapors.

3) Soil vapor cleanup – implementation: Once the soil vapor removal effectiveness is ensured, this cleanup approach will be deployed to other areas of Redwood Court where vapor intrusion may be a threat.

Board staff's approval letter requires Xtra Oil to submit a completion report by February 10, 2017, describing horizontal well installation and soil vapor extraction feasibility-testing results. The report will also include recommendations for full-scale implementation based on the feasibility-testing results. We will keep the Board informed about cleanup progress at the site.

Sanitary Sewer Collection Systems (Mary Boyd)

Under the State Water Board statewide general order for sanitary sewer systems, we regulate sewer collection system agencies with the goal of eliminating sanitary sewer overflows (SSOs). SSOs are a threat to public health and the environment because they contain constituents that pollute water, cause odors, threaten public health and aquatic life, and impair recreational uses of water. When an SSO occurs, the responsible agency must immediately report its spill information. Failure to report any SSO is a violation of the permit.

In October 2016, we issued notices of violations (NOVs) to 25 sewer collection system agencies for failure to comply with the reporting requirements of the statewide general order. Because these failures directly affect our evaluation of SSO spill metrics, such as the number and percentage of spills by cause, the NOVs require each agency to submit a report certifying that they have implemented methods to ensure compliance with the reporting requirements. We are hopeful that these NOVs will serve as an effective tool in bringing these agencies into compliance.

In-house Training

Our November in-house training was on wetlands and the ways in which each of our programs is involved in wetland protection and restoration. We will have no December in-house training. Brownbag seminars included a November 3 session on HiPOx, an advanced oxidation technology to treat groundwater impacted by 1,4-dioxane (a solvent stabilizer that is resistant to conventional groundwater treatment technologies).

Staff Presentations

On October 27, Senior Water Resource Control Engineer Cheryl Prowell spoke at the Environmental Health Committee meeting of the California Conference of Local Health Officers on the impacts of trichloroethene (TCE) detected in indoor air. The California Conference of Local Health Officers is a forum for county and local public health officers to discuss significant issues in order to develop recommendations for appropriate public health policy. Cheryl's presentation summarized the short-term health risks to the developing fetus from TCE in indoor air. She also summarized recent guidance issued by U.S. EPA calling for action to reduce exposures within days or weeks. As a case study, she discussed our case at 1964 Williams Street in San Leandro. There, because of elevated levels of TCE detected in indoor air due to historic TCE spills at the site, we issued a Proposition 65 notification and required temporary relocation of workers to prevent unsafe exposures. The presentation discussed Water Board and public health officer responsibilities for Proposition 65 notifications and described county and State authorities that allow us to require relocation or evacuation. Dilan Roe, the Land Use and Local Oversight Program Manager at Alameda County Environmental Health, commented on the County's role in coordinating with the State, similar issues on County-lead cleanup cases, and the need for pre-planning. The committee agreed to hold a followup meeting with the goal of developing a process to expedite any future actions in order to avoid unsafe exposure to contaminants in indoor air consistent with the timeframes called for by U.S. EPA.

In late October, Engineering Geologist Ross Steenson and Senior Engineering Geologist David Elias participated on the Total Petroleum Hydrocarbon (TPH) Risk Team at the Interstate Technology and Regulatory Council (ITRC) fall meeting in Colorado. The team is tasked with drafting nationally applicable guidance for TPH. Engineering Geologist Kevin Brown is also a member of the team. ITRC is a public-private coalition working to encourage the use of innovative environmental technologies to reduce compliance costs and maximize cleanup efficiency. ITRC produces documents and training that broaden and deepen technical knowledge and expedite regulatory decision making while protecting human health and the environment. For more information on ITRC, visit itrcweb.org.

One of the issues facing the TPH Risk Team is how to address petroleum-breakdown products, also known as petroleum metabolites. For most subsurface releases, metabolites result from natural biodegradation of petroleum product. There is an ongoing debate that has Chevron and the State Board disagreeing with our staff and the states of Hawaii and Washington regarding the toxicity and risk posed by petroleum metabolites. In short, Chevron and State Board guidance opine that petroleum metabolites in waters of the State do not need to be regulated. In contrast, and based on our June 2016, *Petroleum Metabolites Literature Review and Assessment Framework,* we have concluded that petroleum metabolites likely have similar risk to their parent hydrocarbons and, therefore, require the same cleanup or monitoring efforts to

protect human health and the environment. To help the team understand this issue, ITRC team leaders organized an evening session presenting these opposing views where Chevron representative Dawn Zemo of Zemo Associates, LLC, gave a summary of their perspective followed by Mr. Steenson, who presented our analysis of the risks associated with petroleum metabolites. In the future, as research advances, the ITRC may commission development of guidance specifically addressing petroleum metabolite risk.

In early November, at the California Department of Toxic Substances Control's request, Ross also gave a similar extended presentation at its Berkeley office.

On November 4, I presented a "regulatory update" to the North Bay Watershed Association at its monthly meeting, where I updated Association members, who are representatives of North Bay water, wastewater, and stormwater agencies, on statewide and regional water quality policy development and implementation. I focused on our recent exercise to identify the Board's priorities for the coming year and how those priorities will involve the Association's members

On November 13, Assistant Executive Officer Dyan Whyte gave a lecture at the 24th Annual California Water Law Conference on the latest developments in regulating vineyards and wineries in our Region. Ms. Whyte described our draft general waste discharge requirements for vineyards, currently out for public comment, and the proposed general waste discharge requirements for wineries that staff plan to release for public comment in January. In addition, she discussed the Board's approach to permitting the use of recycled water and the need to manage salt and nutrients in order to protect groundwater.

On November 16, Engineering Geologist Jack Gregg and Senior Staff Counsel Julie Macedo from the State Water Board's Office of Enforcement participated in a public informational meeting about the Lehigh Cement Quarry in Santa Clara County. This second annual meeting was hosted by Santa Clara County Supervisor Joe Simitian to address public concerns about the water quality, air quality, and noise impacts of the quarry. State, local and federal agency staff answered questions from the audience and from Supervisor Simitian.

Limestone has been mined at the Lehigh quarry since the 1930s and wastes associated with the quarry and its cement-making process have resulted in discharges of selenium and other contaminants to Permanente Creek and groundwater. Permanente Creek is listed as impaired for selenium because observed total selenium concentrations in the water column exceed the chronic water quality objective. Board staff began investigating reports of discharges from the quarry in 2010, and the Board has issued several regulatory and enforcement orders since then (http://www.waterboards.ca.gov/sanfranciscobay/water_issues/hot_topics/lehigh.shtml). Board staff from the NPDES, Watershed, Planning, and Groundwater divisions are currently evaluating surface and groundwater data from the facility with a goal of recommending waste discharge requirements, an amended NPDES discharge permit, and a total maximum daily load to the Board over the next 18 months. Ms. Macedo reported on recent enforcement activities, noting that the frequency of discharge violations has decreased. In response to questions about ongoing impacts, Dr. Gregg described efforts to capture and treat water from the quarry, reuse stormwater on the site, and to isolate selenium sources from stormwater runoff.

401 Water Quality Certification Applications Received (Keith Lichten)

The table below lists those applications received for Clean Water Act section 401 water quality certification from October 15 through November 25, 2016. A check mark in the right-hand column indicates a project with work that may be in BCDC jurisdiction.

Project Name	City/Location	County	May have BCDC Jurisdiction
Alameda Point redevelopment – site A, phase 1	Alameda	Alameda	✓
Interstate 680 - State Route 4 interchange improvement – phase 3	Concord	Contra Costa	
Moorhen Marsh western pond turtle habitat enhancement	Martinez	Contra Costa	
Chevron Richmond Long Wharf – 5-year pile replacement program	Richmond	Contra Costa	✓
Point Orient Wharf geotechnical borings	Richmond	Contra Costa	✓
MOTEMS audit repair project	Rodeo	Contra Costa	✓
Tilden Nature Area sediment basin excavation and pond restoration	Unincorporated	Contra Costa	
Saban residence construction and culvert work	Lagunitas	Marin	
Mill Valley-Sausalito multiuse pathway preservation	Mill Valley	Marin	✓
Bel Marin Keys wetland restoration – outboard levee	Novato	Marin	✓
Elloway 5-home residential subdivision and storm drain work	Novato	Marin	
3310 Paradise Dr. – waterfront improvements	Tiburon	Marin	✓
Napa Sanitary District sewer line connection project – Stanley Ranch Resort lateral	Napa	Napa	
Lake Merced – aeration demonstration project	San Francisco	San Francisco	
SFO emergency seawall erosion repair	San Francisco	San Francisco	✓
Westar Marine Pier 50 – pile in-kind replacement	San Francisco	San Francisco	✓
Green Valley Trail improvement project	Montara	San Mateo	
San Pedro Terrace 6-home residential subdivision	Pacifica	San Mateo	
Pump Station 4 sanitary sewer force main canal crossing	South San Francisco	San Mateo	✓
Valero dock catwalk maintenance	Benicia	Solano	✓

Enforcement Actions (Bill Johnson)

The following tables show one issued complaint and one final action. Existing complaints and proposed settlements are available at: http://www.waterboards.ca.gov/sanfranciscobay/public_notices/pending_enforcement.shtml.

Issued Complaints
The following complaint was issued with a comment period deadline that is under consideration by the Board's Advisory Team.

Discharger	Violation(s)	Penalty Proposed	Comment Deadline
Lehigh Southwest Cement Company, Cupertino	Discharges in violation of NPDES Permit effluent limits and Cease and Desist Order interim effluent limits.	$465,500	December 15, 2016

Final Actions
On behalf of the Board, the Executive Officer approved the following:

Discharger	Violation(s)	Penalty Imposed	Supplemental Environmental Project
San Francisco Public Utilities Commission	Unauthorized discharge of improperly treated wastewater to waters of the State and U.S.	$611,100	$611,100

The State Board's Office of Enforcement includes a statewide summary of penalty enforcement in its Executive Director Report at http://www.waterboards.ca.gov/board_info/eo_rpts.shtml.