STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

EXECUTIVE OFFICER SUMMARY REPORT
MEETING DATE: October 12, 2017

**ITEM:** **6**

**SUBJECT:** **Overview of Regional Water Board Proposed Priorities -** Workshop on the Board's Programs and Their Proposed Priorities for the 2017-2018 Fiscal Year

**DISCUSSION:** This item is the initial workshop to present the proposed priorities for the Board in fiscal year (FY) 2017-18 in carrying out its mission of preserving, protecting, restoring, and enhancing the waters of the San Francisco Bay Region for the benefit of the entire Region. This year, we continue a two-workshop process: the first workshop presents proposed priorities for each of the Board's divisions and their programs, and the second workshop will present Board-wide priorities and priorities for cross-divisional initiatives. We plan to incorporate Board member direction and public comment received at the first workshop into the second workshop. It is the intent of these workshops to provide an opportunity for the Board, Board staff, and stakeholders to discuss these priorities in open session.

The proposed priorities in Appendix A have been developed by management of each of the Board's divisions based on the budget allocated to the division for FY 2017-18. The Board's budget of 104.7 positions for FY 2017-18 represents the same staffing level for all programs as last year, with the additional of 3 positions to implement the new Cannabis Regulatory Program as the only change.

Appendix A is a division-by-division summary of specific proposed priorities and activities each division will carry out based on its budget. These specific priorities and activities in turn are statements of anticipated work that staff may undertake and may not fully describe all the activities the division intends to do.

For the second workshop, currently scheduled for the November Board meeting, each division summary will be updated to more fully identify the division's goals and objectives and the division's priorities for addressing cross-divisional initiatives.

**RECOMMEN-DATION:** This is an information item not requiring action by the Board.

**APPENDIX A:** Division-by-Division Summary of Priorities, Funding, and Programs

# Planning and TMDL Division – October 2017

The Planning and TMDL Division, under Division Chief Naomi Feger, is responsible for maintaining our Basin Plan, including policy development such as climate change policies, developing and implementing Total Maximum Daily Loads (TMDLs), monitoring the Region's waters, providing regulatory oversight for dredging and dredged material reuse projects, overseeing grant programs, and administering the non-point source program. Its FY 2017-18 budget provides for 21.8 staff positions. This is an increase of 3 positions from the previous year due to new funding requiring the creation of a Cannabis Compliance and Enforcement Unit. Three more positions are anticipated in next year's budget to complete the unit.

## Priorities for the 2017-18 Fiscal Year

- Bring the Butano-Pescadero Sediment TMDL and the Suisun Marsh Dissolved Oxygen and Mercury TMDLs to the Board for its consideration.
- Bring site-specific dissolved oxygen objectives for Suisun Marsh slough channels to the Board for consideration as part of the Suisun Marsh TMDL.
- Bring an informational item to the Board relative to a planning effort on adapting our wetland regulatory policies to address climate change and sea level rise. Support development of a wetland regional monitoring program and approaches and tools to address climate change.
- Reissue the Waiver of WDRs for Grazing in the Sonoma Creek and Napa River watersheds to implement pathogen and sediment TMDLs.
- Implement the Vineyard Program General WDRs to implement sediment TMDLs in the Sonoma Creek and Napa River watersheds.
- Staff and develop the Region's Cannabis Regulatory Program.
- 2018 Basin Plan Triennial Review: initiate this effort in the second half of the fiscal year.

## Other Important Division Activities for the 2017-18 Fiscal Year

- Continue development of other TMDLs according to the schedule submitted to the State Board and U.S. EPA and prioritize impaired waters for TMDL development. (see attached summary of the workplan).
- Continue or initiate policy development based on the priorities adopted by the Board in its 2015 Triennial Review: (http://www.swrcb.ca.gov/sanfranciscobay/board_info/agendas/2015/December/12_16_15_agenda.pdf)

  Every three years, Division staff circulates a draft Triennial Review of the Bain Plan that identifies priority projects we will work on to develop policy and update the Basin Plan. While we continue to work on some of these projects this fiscal year, we will also be initiating the next review cycle. Projects we will be working on this year in addition to those listed as priorities are:

  1. Continue developing the Nutrient Management Strategy for San Francisco Bay with an emphasis on developing nutrient water quality objectives; and
  2. Develop a Basin Plan amendment to address total residual chlorine implementation in line with U.S. EPA criteria.
- Support implementation of all TMDLs.

- Oversee the Surface Water Ambient Monitoring Program (SWAMP) and continue watershed-based water quality monitoring.
- Provide technical support to the Regional Monitoring Program.
- Oversee State and federal grants consistent with TMDL implementation and the non-point source policy.
- Oversee the Long-Term Management Strategy for Dredged Material Placement (LTMS).
- Oversee large landscape scale restoration, flood control, development/redevelopment and public infrastructure projects, such as the Napa River/Napa Creek Flood Protection Project, and provide permitting coordination and technical guidance to cross-divisional teams.

## Division Programs

**Basin Planning** - The Board is required to develop, adopt (after public hearings), and implement a Water Quality Control Plan (Basin Plan) for the Region. The Basin Plan is the master policy document that contains descriptions of the legal, technical, and programmatic bases of water quality regulation in the Region. The plan must include: a statement of beneficial water uses for all of the Region's waters that the Board will protect, the water quality objectives needed to protect the designated beneficial water uses, and the implementation plans for achieving the water quality objectives through the Board's regulatory programs.

**Total Maximum Daily Loads (TMDLs)** are actions to restore clean water. Section 303(d) of the federal Clean Water Act requires that states identify water bodies that do not meet water quality standards. TMDLs examine these water quality problems, identify sources of pollutants, and specify actions that create solutions. Implementation of TMDLs involves multiple Board programs depending on the actions identified in each TMDL.

**SWAMP** - Since 1999, our regional Surface Water Ambient Monitoring Program (SWAMP) has been monitoring water quality in the Region's watersheds and contaminants in fish from reservoirs, the ocean, and bays other than the Bay at an intensity appropriate for the State's Office of Environmental Health Hazard Assessment to develop fish consumption advisories. Data collected by SWAMP has an important role in assessing the quality of our Region's waters and in supporting TMDL development, as well as evaluating new potential threats to water quality, such as harmful algal blooms. Our SWAMP program has successfully collaborated with stormwater programs to develop a watershed monitoring coalition with to ensure collaborative, consistent, and high-quality watershed monitoring.

**Dredging and LTMS** - Any dredging and dredged material placement activity in San Francisco Bay, its marshes, and its creeks requires Board approval, usually via waste discharge requirements or a water quality certification. The dredging program is included in the Basin Plan's implementation program. Division staff work with federal, State, and local partners in implementing the Long Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region (LTMS) and applying LTMS as the regional vehicle to manage dredging, disposal, and reuse activities in the Region. The LTMS partners continue to work towards maximizing beneficial use of dredged material and support for wetland restoration and creation.

**Non-Point Source (NPS)** - The highest priority areas of focus for NPS management measures are: 1) controlling runoff from confined animal facilities, 2) controlling runoff from grazing operations, and 3) controlling hydromodification both from agriculture and urban development. The Division has taken

the lead on implementing the NPS program regionwide as controlling NPS impacts are tied to TMDL implementation activities. The Division also currently manages multiple federal NPS grants, the majority of which are targeted to address NPS pollution and implement TMDLs. Past and present grants include vineyard program third party development, equestrian facility improvements, dairy and rangeland water management practices, dam removal, creek restoration, and citizen monitoring projects. Division staff will continue to publicize NPS grant opportunities to all stakeholders and review NPS grants proposed for State Board funding.

# SF Bay Region TMDL Program Plan – 5 Year Outlook – **October 2017**

| Project | Listings | FY 17/18 | FY 18/19 | FY 19/20 | FY 20/21 | FY 21/22 |
|---|---|---|---|---|---|---|
| **San Francisco Bay & Delta** | | | | | | |
| **Suisun Marsh Dissolved Oxygen (DO), Mercury, & Nutrients** | 3 | Board Action | Implementation | Implementation | Implementation | Implementation |
| **San Francisco Bay Sediment Toxicity Listings **** | 5 | Synthesize Existing Information | Conceptual Model/Impairment Assessment | Staff Report | Board Action | Implementation |
| **San Francisco Bay Dioxins/ Furans** | 24 | Project Report | Staff Report | Board Action | Implementation | Implementation |
| **San Mateo - Bayside and Coast** | | | | | | |
| **Butano & Pescadero Creeks Sediment (Upper Watershed)** | 2 | Board Action | Implementation | Implementation | Implementation | Implementation |
| **Pescadero Marsh DO (Lower Watershed)** | Not listed | Monitoring & Analyses | Conceptual Model/Impairment Assessment | Staff Report | Board Action | Implementation |
| **Permanente Creek Selenium** | 1 | Develop Regulatory Recommendation* | Staff Report | Board Action | Implementation | Implementation |
| **Pillar Point Harbor Indicator Bacteria***** | 1 | | Monitoring & Analyses | Conceptual Model/Impairment Assessment | Staff Report | Board Action |
| **San Francisquito Creek Sediment***** | 1 | | | Project Report | Board Action | Board Action |
| **San Gregorio Creek Sediment** | 1 | Staff Report | Board Action | Implementation | Implementation | Implementation |
| **Stevens Creek Toxicity** | 1 | Project Report | Staff Report | Board Action | Implementation | Implementation |
| **Sonoma/Marin** | | | | | | |
| **Petaluma River Indicator Bacteria** | 1 | Staff Report | Board Action | Implementation | Implementation | Implementation |
| **Contra Costa** | | | | | | |
| **Arroyo Las Positas Eutrophication** | 1 | | Monitoring & Analyses | Conceptual Model/Impairment Assessment | Staff Report | Board Action |
| **Region-wide** | | | | | | |
| **PCBs in Bay Region Reservoirs** | 8 | Conceptual Model/Impairment Assessment | Project Report | Staff Report | Board Action | Implementation |
| **Statewide** | | | | | | |
| **Mercury in SF Bay Region Reservoirs** | 7 | Stakeholder Meetings | Staff Report | State Board Action | Implementation | Implementation |

*Potentially addressed by Lehigh Hanson NPDES permit requirements
**Mission Creek, Islais Creek, San Leandro Bay, Central Basin, Oakland Inner Harbor - Fruitvale
***San Francisquito TMDL – currently on hold pending outcome of other efforts in the watershed

| List of Completed TMDLs in Implementation Phase | |
|---|---|
| **Completed TMDLs** | **Regional Water Board Adoption Year** |
| Diazinon & Pesticide-Related Toxicity in Bay Area Urban Creeks (Urban Creeks Pesticide TMDL) | 2005 |
| Tomales Bay Pathogens | 2005 |
| SF Bay Mercury | 2006 |
| Sonoma Creek Pathogens | 2006 |
| Napa River Pathogens | 2006 |
| Walker Creek Watershed Mercury | 2007 |
| Richardson Bay Pathogens | 2008 |
| Guadalupe River Watershed Mercury | 2008 |
| Sonoma Creek Sediment | 2008 |
| SF Bay PCBs | 2009 |
| Napa River Sediment | 2009 |
| San Pedro Creek and Pacifica State Beach Bacteria | 2012 |
| Tomales Bay Mercury | 2012 |
| Lagunitas Creek Sediment | 2014 |
| North SF Bay Selenium | 2015 |
| SF Bay Beaches Bacteria | 2016 |

| List of Alternative TMDLs in Implementation Phase | |
|---|---|
| **Project Name** | **Regional Water Board Adoption Year** |
| San Vicente Creek Water Quality Improvement Plan for Bacteria | 2016 |

| List of Single Regulatory Action Projects | |
|---|---|
| **Project Name** | **Type of Action** |
| Oakland Inner Harbor Pacific Dry Dock | Referral to Groundwater Division for sediment cleanup |

# Toxics Cleanup Division

The Toxics Cleanup Division, under Division Chief Stephen Hill, is one of two divisions at the Board that focuses on groundwater protection and cleanup/restoration. The Division oversees all underground storage tank (UST) cleanup cases and most Site Cleanup Program (SCP) cases regulated by our region. It also supports various local agencies that oversee smaller UST and SCP cases. Its FY 2017-18 budget provides for 21.9 staff positions, the same as in the prior fiscal year.

## Priorities for the 2017-18 Fiscal Year

- Oversee the UST cleanup program, specific to leaking underground fuel tanks, in order to meet performance targets for cases starting remediation and case closures (described in the semi-annual status reports to the Board, which are posted online). A key priority in the UST cleanup program is implementing the State Water Board's low-threat closure policy.
- Oversee cleanup of sites enrolled in the SCP cost recovery program, primarily solvent, dry cleaner, and other industrial chemical release sites, in order to meet performance targets for cases starting remediation and case closures (described in the semi-annual status reports to the Board, which are posted online). Key priorities in SCP are 1) focusing on high-priority cases as identified by our updated case-prioritization tool and 2) updating Cal/EPA vapor intrusion guidance in partnership with our DTSC and State Water Board colleagues so that we can adequately evaluate and mitigate vapor-intrusion threats for the cases we oversee. Item 2) is in response to recent scientific and technical information about vapor intrusion; it includes an update to two related documents: our region's Environmental Screening Levels and our region's vapor mitigation guidance.
- Implement two of the four SB445 ("site cleanup subaccount") projects in our region: 1) identify and oversee high-threat, under-funded dry cleaner sites and 2) oversee other high-threat, under-funded sites identified during our FY 2015-16 screening of SCP inactive cases. This work includes oversight of sites receiving SB445 grants to fund needed investigation and cleanup (only one to date but more expected in FY 2017-18).

## Division Programs and Other 2017-18 Fiscal Year Division Activities

The Division is responsible for overseeing the cleanup of and restoration of groundwater quality at most sites contaminated by unauthorized waste discharges, as opposed to overseeing permitted waste disposal sites such as landfills. Division staff issue Water Code section 13267 directives and prepare Water Code section 13304 cleanup orders to require necessary site investigation and cleanup.

**Underground Storage Tank Cleanup Program –** The UST program focuses on the cleanup of impacts from leaking underground storage tanks. Most leaking USTs have released petroleum products to soil and groundwater although some have released solvents such as trichloroethylene. Most releases occurred before the 1998 State and federal deadline for upgrading USTs. At petroleum UST sites, we work with the State Water Board, which reimburses eligible cleanup costs through its UST Cleanup Fund. We also coordinate with local agencies, such as county environmental health departments, which oversee many of the petroleum UST sites in our region. Our division currently oversees 288 UST cases (274 active and 14 inactive).

**Site Cleanup Program –** The SCP program covers all unauthorized waste discharge sites that are not covered by the UST program. These include spills and historic releases from industrial facilities, dry cleaners, petroleum pipelines, bulk fuel terminals, and various smaller sites. Many of these sites are discovered as a result of property transfer or redevelopment, and the resulting cleanup work dovetails

with site reuse. We regularly collaborate with local government on Brownfield restoration – the cleanup and reuse of properties where site utilization is complicated by contamination. We also interact with U.S. EPA, which has delegated to us the responsibility for overseeing several federal Superfund sites. Our Division and the Groundwater Protection Division currently oversee 843 SCP cases (549 active and 294 inactive); the large number of inactive cases is due to various factors (e.g., discharger inability to pay, discharger recalcitrance, and limited staff resources).

Most program funding comes from the SCP cost recovery program, where dischargers are billed for our actual time spent overseeing cleanup of their sites, but, starting in 2015, this program also receives some "non-cost-recovery" funding through new state legislation (SB445) that allows use of funds from the State Board's UST Cleanup Fund for our oversight of cleanup of otherwise unfunded or underfunded sites. The Toxics Division implements two of the region's four SB445 projects: unfunded cases and dry cleaner spill sites. FY 17-18 will be the third year for our SB445 projects. We expect to build on the first two-year's efforts by expanding our oversight of high-priority cases we previously found in the SCP backlog and by continuing efforts to identify and clean up dry cleaner release sites in priority groundwater basins. In future years, we will need to divert some SB445 staff resource from the four current projects to statewide SB445 projects (e.g., oversight of cases receiving SB445 grants, identifying sources of supply-well impacts).

## Goals and Objectives

Our Division's broad goal is to protect human health, protect and restore water quality, and protect the environment in our oversight of SCP and UST cases. The following objectives flesh out this goal:

- Control human health exposure to site contaminants
- Control groundwater contaminant migration
- Prevent or mitigate impacts to water supply wells and surface waters
- Require cleanup within a reasonable timeframe to meet protective cleanup levels
- Require risk management measures when it is infeasible to fully meet protective cleanup levels or when cleanup will take several years
- Leverage scarce staff resources to get the most "bang for the buck" (oversee cases where cleanup is ancillary to redevelopment or where a modest oversight effort is likely to yield significant cleanup benefits)
- Provide community outreach and incorporate public comments prior to major cleanup decisions

## Challenges

Our ability to meet these objectives is limited by several factors:

- Many contaminants – notably chlorinated solvents – are "recalcitrant": they do not naturally degrade in the subsurface, resulting in longer plumes of polluted groundwater, and, once released to the subsurface, they are hard to clean up.
- At some sites, it is hard to predict when vapor intrusion is occurring without intrusive and staff-intensive investigations (vapor intrusion is when volatile chemicals migrate from groundwater or soil into occupied buildings).

- It is often difficult to "work backwards" from an impacted water supply well to find the source or sources of its contamination, due to complex subsurface conditions and a plethora of potential sources.
- At sites with multiple dischargers, disputes over relative responsibility can block or delay cleanup. This can happen at a single site with multiple dischargers (e.g., current property owner and past owners/operators) or at multiple sites with commingled groundwater plumes.
- In the SCP program, there is no reimbursement of cleanup costs by the State as there is in the UST program, and some dischargers are unable to afford site investigation and cleanup costs, which can be in the millions of dollars at the more-contaminated sites.

## Measuring Success

The Water Boards have defined several performance measures in the cleanup programs that help us to measure our success, and we have generally met or exceeded those performance measures:

- Number of case closures: this measure signifies the completion of site investigation and cleanup and the attainment of cleanup levels (or self-implementing risk management if full attainment of cleanup levels is infeasible). We track case closures in the State's GeoTracker database and set annual case-closure targets. Last FY, we closed 37 UST cases and 42 SCP cases, exceeding our closure targets in both programs. We expect case closure rates to slow somewhat in future years, with the "easy" cases already closed and the remaining cases posing more challenges (see above).
- Number of cases starting remediation: this measure signifies the start of tangible efforts to clean up a site, with either interim or final cleanup measures. We track this measure in GeoTracker and set annual targets. Last FY, we started remediation at 8 UST cases (slightly below our annual target) and 30 SCP cases (exceeding our annual target). We attribute the UST result to the maturity of our UST cases; most of them have already passed this milestone.
- Number of cases with human health exposure controlled: this measures our ability to quickly eliminate short-term health impacts discovered during site investigation (e.g., require vapor intrusion mitigation where needed). We track this measure in GeoTracker but have not yet set annual targets. Currently, 51% of our cases meet this measure and 47% of our cases are still doing site investigation to see if this measure is met.
- Number of cases with groundwater contaminant migration controlled: this measures our ability to prevent continued migration and to protect "clean" groundwater (e.g., using slurry walls or "pump and treat" systems). We track this measure in GeoTracker but have not yet set annual targets. Currently, 48% of our cases meet this measure and 47% of our cases are still conducting site investigation to see if this measure is met.

The time needed to reach cleanup levels varies significantly between different sites, with fuel UST cases tending to take less time since petroleum mixtures tend to bio-degrade significantly. Performance measures therefore capture several intermediate milestones prior to case closure. Success in meeting these performance measures will over time lead to a shrinking caseload, as the pace of case closures exceeds the intake of newly-discovered cases.

# Groundwater Protection and Waste Containment Division- October 2017

The Groundwater Protection and Waste Containment Division (GWPD), under Division Chief Terry Seward, is one of two divisions at the Board that focuses on groundwater protection and cleanup/restoration. GWPD's primary goal is to restore beneficial uses and ensure the protection of water quality, human health, and the environment where discharges of waste or contaminants occur, such as at spill or leak sites, solid waste landfills, waste ponds, and other land disposal facilities.

Additional goals include: preventing releases from occurring, ensuring that contaminated sites are cleaned up, that waste left in place is properly contained, that impacted wetlands and habitat are restored, and that regulatory requirements for cleanup sites and landfills are consistent with proposed land use changes to protect water quality and human health. Potential impacts from sea level rise are also considered during program implementation.

GWPD is divided into three sections: two (led by Alec Naugle and David Elias) that regulate soil, surface water, and groundwater cleanup and protection activities at Department of Defense (DoD), Department of Energy (DoE), and Site Cleanup Program (SCP) sites; and one (led by Keith Roberson) that regulates solid waste landfills, waste ponds, complex SCP sites such as petroleum refineries and chemical manufacturers, and soil, surface water, and groundwater cleanups at large. The FY 2017-18 budget provides for 18.4 staff positions in GWPD. As lands owned by the military are transferred to cities for reuse and redevelopment, we expect a commensurate shift of cost recovery funding and positions from DoD to SCP. In 2016, two DoD positions were realigned in this manner.

## Priorities for the 2017-18 Fiscal Year

GWPD priorities are screened and selected considering factors such as: imminent threat to human health or the environment, improvement and protection of water quality, long-term protection of public health and the environment, land use changes, improving organizational efficiency, and availability of staff resources and funding.

Based on the screening exercise the top FY 17/18 priorities were selected as identified below.

- **Evaluate proposed development projects** and refine our strategy for addressing proposed developments over former landfills, mine sites, and other contaminated sites. Developers and cities are increasingly seeking to redevelop land that historically has not been considered a resource for development, such as landfills and other contaminated sites. Ensuring that these developments will provide long term protection of human health and the environment is a significant challenge and priority that requires staff to provide comprehensive technical analyses and scrutiny of the proposed project.

  For example, last May the Board adopted updated WDRs for the Santa Clara Landfill to accommodate a mixed-used residential development which allows for the project to proceed to the next step. After staff worked with the city and developer for nearly four years, we believe the proposed development will protect water quality and human health at the landfill, and issues such as settlement, and vapor intrusion will be properly addressed. However, all proposed development sites over contamination are of great concern to public health, and need to receive extra scrutiny and evaluation prior to the commencement of development.

- **Oversee closure of five bay-front waste management units (WMUs):** This priority applies to five bay-front refinery WMUs at the Tesoro Refinery in Martinez. The five WMUs encompass 45 acres and are proposed to be closed through a combination of waste removal, consolidation, and stabilization. The footprint of the WMUs will be reduced through partial clean-closure of certain units and improvement of wildlife habitat. The objectives of this priority project are to safely contain waste material at historical waste disposal sites and restore/improve habitat. The net results will be reduced threat to water quality (through improved waste containment) and improvement of habitat. Closure activities of one of the WMUs has already begun, and closure of two other WMUs is planned to begin next fiscal year.

- **Ensure cleanup of high-priority DoD sites:** This priority applies to about 10% of our 390 active cleanup sites at DoD facilities. These sites are considered high priorities based on potential uncontrolled shoreline/wetland contaminant discharges, groundwater plumes near supply wells, vapor intrusion threats to occupants of existing buildings, contaminated stormwater discharges, or direct human exposure to contaminated soil. It also applies to DoD cleanup sites that are slated for redevelopment where complete cleanup use has not occurred commensurate with the planned reuse. In the next two years, we anticipate that high-priority sites at the former Hunters Point Naval Shipyard, Treasure Island Naval Station, and Concord Naval Weapons Station will be ready for transfer to local agencies. High priority shoreline sites also exist at Alameda Point, Mare Island, Moffett Field, Point Molate, and Point Ozol. The safe reuse of the Region's former military bases is a mandated priority for the Region and State, and our role is vital to ensuring that the cleanup, restoration, and redevelopment is protective of human health and the environment.

- **Develop guidance for vapor intrusion assessment and mitigation:** This priority, to be carried out in coordination with the Toxics Division is necessary to establish consistent guidance for staff and the public to help address the growing demands for regulatory oversite of vapor intrusion sites. Board staff has worked with across divisions and with other State agencies on developing statewide guidance for assessing vapor intrusion (VI) threats. The results of this effort are helping us prioritize sites that need greater regulatory attention,and identify when different regulatory approaches and tools are most effective.

## Other 2017-18 Fiscal Year Division Activities

- **Implement SB445 ("site cleanup subaccount") priority projects:** In 2015, we identified the following two priority projects for funding under the site cleanup subaccount that we will continue to work on this year:

    - Continue to evaluate and prioritize the cleanup of high threat mine sites – Board staff are currently focused on addressing the impacts of closed mercury mines in Santa Clara, Napa, and Solano counties. Since last fiscal year, staff have prioritized former mines in the Region based on their threat to water quality and have identified 14 mine sites that will require field inspections to assess the risk posed by the mines themselves and mining wastes. Field work will consist of onsite analysis of waste rock using a newly purchased X-Ray Fluorescence (XRF) gun and an assessment of site conditions such as surface water drainage.

    - Prioritize groundwater basins and identify baseline groundwater quality for salts, nutrients, and other industrial chemicals – Board staff will selectively apply regulatory tools to protect and restore groundwater by controlling discharges and requiring further source identification

and abatement. Our internal groundwater management team is prioritizing groundwater basins based on impacts from salts and nutrients and are working with stakeholders to review local groundwater plans, identify problem source areas, and continue to evaluate for the extent of salts, nutrients, and other chemicals to minimize water quality impacts. The team has completed, and the Board has adopted, resolutions for the Sonoma, Livermore, and Santa Clara Valley groundwater basins. It is currently focused on the Niles Cone groundwater basin and plans to bring a resolution before the Board this fiscal year. Evaluating these plans is helping us identify shallow groundwater problems affecting beneficial uses. It is also informing us how best to regulate waste discharges to land, including: onsite wastewater treatment systems, winery waste discharges, and landscape irrigation projects using recycled wastewater.

- **Petroleum transformation products (metabolites)** are considered emerging contaminants that have been demonstrated to dominate groundwater plumes at large petroleum release sites. Preliminary toxicity information indicates they have comparable toxicity to the parent hydrocarbons. Basic guidance on the evaluation of metabolites in groundwater had been incorporated in the 2013 ESLs but the topic did not attract much attention until the release of our Technical Resource Document (TRD) on metabolites in June 2016. We intend to update our petroleum metabolite guidance based on the substantial feedback we've received on the TRD and evaluate all new information learned from guidance implementation and the latest research.

## Division Programs

**Department of Defense and Energy Programs –** Staff in the DoD and DoE programs predominately oversee the cleanup and restoration of groundwater, soil, and sediment contaminated by historic releases at federally-owned or operated sites. Staff also address the ecological and surface water-related impacts caused by these releases where they exist.

There are 40 facilities in the DoD Program in our Region. Most are former U.S. Navy, Army, and Air Force bases that were closed as a result of the congressionally-mandated Base Realignment and Closure Program first instituted in 1991. The DoD Program also includes Formerly Used Defense Sites (FUDS), which are facilities that were owned, operated, or leased by a branch of the DoD for various uses such as missile silos, gun batteries, listening posts, and radar stations.

DoD Program staff oversee the cleanup of military facilities to ensure protection of public health, safety, and the environment. Another goal is the transfer of land from DoD to local entities, such as a city or its master developer, for redevelopment or open space. After the land transfer, DoD Program staff continues to oversee these military privatized sites if additional cleanup is needed to accommodate the new land use. After transfer the source of funding for our regulatory oversight shifts from the military-funded DoD program to the city or developer through SCP cost recovery. Past examples of this transfer process include the Presidio of San Francisco, Pt. Molate in Richmond, Moffett Field in Mountain View, and a large portion of both the Mare Island Naval Shipyard and Alameda Naval Air Station. In the next two years, we anticipate that large portions of Hunters Point Naval Shipyard, Treasure Island Naval Station, and Concord Naval Weapons Station will be ready for transfer. DoD program staff also worked with the U.S. Maritime Administration to address polluting ships in the Suisun Bay Reserve Fleet. The final decaying ship was successfully removed in August 2017, marking a ten–year enforcement effort by Board staff.

There are four facilities in the DoE Program (Lawrence Livermore National Lab, Sandia National

Lab, Lawrence Berkeley National Lab, and the Stanford Linear Accelerator Center).The DoE Program utilizes a federal grant to pay for our costs in overseeing cleanup of these sites. These are operating facilities that are not currently planned for transfer to civilian reuse.

**Site Cleanup Program (SCP) –** Currently, about 40% of the SCP resources are allocated to GWPD with the balance overseen by Toxic Cleanup Division staff. SCP sites in GWPD typically include aboveground storage tank facilities, oil refineries and pipelines, power generation plants, contaminated wetlands, abandoned and active mines, military privatized sites, and former and active gun clubs. Division staff prepare Water Code section 13267 directives and 13304 cleanup orders to require necessary site investigation, cleanup, and abatement.

**Land Disposal Program -** The Land Disposal Program oversees the treatment, storage, and disposal of waste within waste management units (WMUs) under State regulations that address discharge of waste to land. WMUs include active and closed municipal landfills, waste piles associated with mining operations, and industrial surface ponds, or landfills such as those found at refineries and chemical manufacturing plants.

Our primary objective while regulating WMUs is to ensure that wastes are properly contained and do not degrade surface water or groundwater quality. Staff enforces State regulations that consist of design standards for WMU liners, covers, environmental monitoring, and cleanup, when necessary. To implement these regulations, Division staff prepare waste discharge requirements (WDRs) for Board consideration and adoption. WDRs contain prohibitions, specifications, and provisions that protect surface and groundwater water quality and require reporting on the long-term functionality of the measures taken to contain waste. As Division staff update WDRs, we are including provisions directing site owners to regularly review and update their long-term flood protection plans to ensure any climate change impacts are addressed in ensuring long-term waste containment.

## Division Challenges to Achieving Priorities

The Division faces the following key challenges in implementing its priorities:

- **Under-Resourced Programs and Activities**: As has been the case for many years, certain portions of our program workloads are unfunded or underfunded. This includes work in the following areas:
    - Evaluating salt and nitrate impacts in groundwater basins from agricultural activities, septic systems, recycled water landscape irrigation, seawater intrusion, and abandoned mines;
    - Regulating redevelopment of closed landfill sites;
    - Addressing projected sea level rise at shoreline cleanup sites, landfills, refineries, tank farms, and redevelopment sites;
    - Evaluating risk associated with emerging contaminants and petroleum metabolites; and
    - Regulating our Region’s compost facilities under recently-adopted statewide general WDRs.

- **Mechanism for Cost- Recovery Program Realignment**: As mentioned earlier, the continued privatization of military sites requires a shift of DoD Program resources to SCP cost recovery. There is currently no streamlined mechanism to accomplish this. Without it, we face the possibility of losing DoD Program positions without a reciprocal gain of SCP positions. Many of

our Region's former military bases are undergoing residential redevelopment to address the Bay Area's housing shortage. It is vital that we continue to provide regulatory oversight of privatized DoD sites to ensure that redevelopment activities do not undermine prior remedies and that additional cleanup for the new land use is protective of human health and water quality. The Division's priorities are impacted by this challenge. Since resources are limited, careful planning and work prioritization is needed to get the most benefit from these resources.

- **Balancing Cleanup with Risk Management:** Achieving the right balance between cleaning up contamination at a site versus allowing some to remain and managing the risks is a challenge, particularly when land use changes are later proposed. We face this challenge at closed landfills, military bases, and at numerous volatile organic compound and petroleum contaminated sites. The trend to develop over contaminated sites appears to be on the rise. This trend creates challenges because it requires more staff time to; 1) reach an appropriate balance between cleanup and risk management; 2) evaluate long term success and future upkeep and effectiveness of risk management measures; 3) address community concerns; and 4) issue cleanup and abatement orders that require long term oversight of required land use controls, operation and maintenance plans, and financial assurances.

## Measuring Success

GWPD measures success by tracking forward progress of its priorities. Specifically, the following are tracked for each program:

- Land Disposal Program - Program staff track: number of site inspections completed, number of orders issued, compliance with orders, compliance with State regulations and Board orders, compliance with general stormwater permits, compliance with section 13267 directives, and improvement of water quality.

- DoD and DoE Program - On an ongoing basis, program staff track in GeoTracker the number of open/active sites (currently 465); sites where human health exposures are controlled (422); sites where groundwater contaminant migration is controlled (344); sites closed (40 per year, on average) and sites beginning cleanup (10 per year, on average). These metrics apply mainly to petroleum cleanup sites where we are the lead regulatory agency. We expect case closure rates to slow somewhat in future years, as the low-hanging fruit has been picked, leaving more complex/challenging cases remaining. For non-petroleum site cleanups (e.g., chlorinated solvents, PCBs, PAHs, mercury, lead), we also track case progress through the nine-step federal cleanup process. Key progress indicators include completion of investigation; remedy selection, design, and implementation; remedy completion; long-term monitoring; and site transfer.

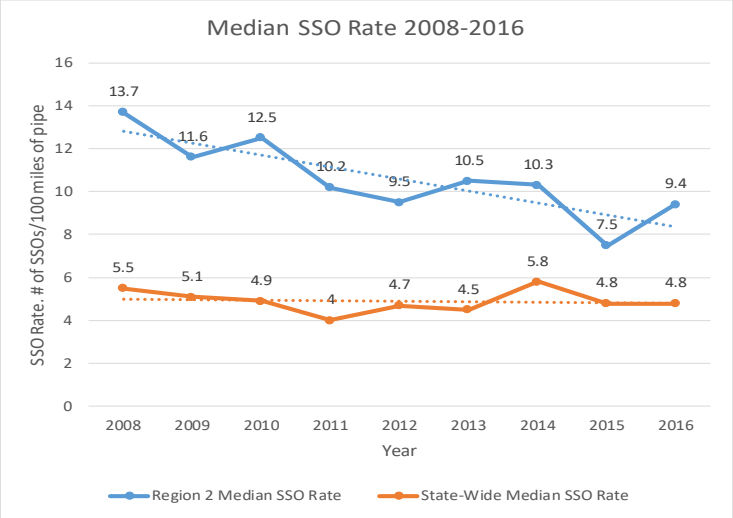
- Site Cleanup Program - Similar to the Toxics Cleanup Division, GWPD staff track: number of inspections completed, number of orders issued, compliance with orders, compliance with general storm water permits, compliance with section 13267 directives, site contamination stabilized, sites cleaned up, and improvement of water quality.

# NPDES Wastewater and Enforcement Division – October 2017

The NPDES Wastewater and Enforcement Division, under Division Chief Bill Johnson, oversees permits for discharges of treated wastewater to surface waters pursuant to the federal Clean Water Act and the California Water Code. The Enforcement Section within the Division assists other Water Board divisions primarily with enforcement that involves penalty assessment. The Division's FY 2017-18 budget provides for 15.3 staff positions, the same as last year.

**Priorities for the 2017-18 Fiscal Year**

- ***Reissue NPDES permits according to posted schedule and workplan provided to U.S. EPA.*** NPDES permits ensure that wastewater discharges do not harm receiving waters. Maintaining this core regulatory program protects beneficial uses and sustains the significant water quality improvements the NPDES program has accomplished since Congress enacted the federal Clean Water Act in 1972. Consistent with U.S. EPA's nationwide goals, we maintain a permitting backlog of less than 10 percent. Reissuing permits every five years keeps them up-to-date with recent regulatory requirements, ensures all stakeholders have the chance to provide input, and affords an opportunity for continual improvement. Significant challenges include addressing aging and evolving infrastructure, new water quality concerns (e.g., nutrients and contaminants of emerging concern), and climate change and sea level rise.
- ***Monitor progress of treatment upgrade and optimization evaluations.*** The Nutrient Watershed Permit adopted by the Board in 2014 requires all municipal wastewater treatment plants that discharge to the Bay to evaluate available treatment upgrade and optimization options. If nutrient load reductions become necessary to protect the Bay, understanding these options will be very important. These ongoing evaluations could provide a basis for efficient and equitable nutrient load reductions that, hopefully, can be implemented in a manner that provides other benefits as well. The work is challenging because upgrades and optimization options are site-specific: each of the 37 treatment plants that discharge to the Bay must be evaluated independently. However, this detailed approach will allow us to address nutrient loads by sub-embayment, if necessary. To date, the Bay Area Clean Water Agencies (BACWA) has coordinated evaluation of all 37 treatment plants and is now compiling and confirming the results. We meet with BACWA management regularly to monitor progress and expect to receive the final report by July 2018.
- ***Oversee wastewater collection system maintenance and capital improvements and reduce sewage spills and inflow and infiltration.*** Collection system maintenance is essential to avoid sanitary sewer overflows (SSOs) that threaten water quality and human health and to minimize excessive inflow and infiltration that contribute to wet weather flows. Excess flows reduce treatment efficiencies and can lead to bypassing some treatment units at certain plants. As shown in the figure, SSOs are declining in our Region. We hope to catch up to the statewide median within about seven years. In prioritizing our oversight of collection system agencies, we consider collection system age, volume and frequency of



SSOs, and sewer management plan status, and supplement this information with what we know about planned infrastructure improvements. This year, we are also looking closely at SSO reporting and certifications to ensure that our SSO data are reliable and complete. In addition, we will continue to push collection system agencies to reduce inflow and infiltration from private sewer laterals, which are a significant unregulated source of wet weather flows.

- ***Pursue enforcement for all Board programs consistent with priorities specified in enforcement report*** *(see September 2017 agenda item 7A).* Enforcement is essential to maintaining the integrity of our regulatory programs and ensuring their intended protection and restoration of water quality. We meet internally each month to coordinate enforcement referrals and select enforcement cases in accordance with stated priorities. We pursue a range of enforcement related to cases subject to our regulatory oversight and continue looking for cases that may have been overlooked or illicit discharges not currently subject to our oversight.

**Other Important Division Activities for FY 2017-18**

- ***Inspect wastewater facilities according to workplan provided to U.S. EPA.*** We conduct inspections to evaluate compliance and—importantly—to understand the facilities we oversee and assist dischargers with compliance. We inspect major NPDES discharges at least every other year and minor NPDES discharges with individual NPDES permits at least every five years. This year, we also plan to inspect dry docks and aggregate mining operations covered under general NPDES permits. Our inspections continue to be very focused in scope because we still have no personnel or contract support specifically allocated for inspections. Nevertheless, staff is diligent and achieves inspection performance targets.
- ***Review discharge monitoring reports to verify compliance with permit requirements.*** The NPDES program relies on self-monitoring and self-reporting. Dischargers must certify under penalty of law that their reports are true, accurate, and complete. We review reports to understand each discharger's compliance status, to check that data are reported properly, to confirm that all violations are recorded, and to determine whether followup (e.g., enforcement) is necessary.
- ***Support Bay Area Pollution Prevention Group on regional pollution prevention efforts.*** Pollution prevention seeks to keep pollutants from entering wastewater and requiring expensive and potentially ineffective end-of-pipe treatment. Dischargers report their pollution prevention activities annually, and we encourage them to develop and report metrics to demonstrate program effectiveness. Traditional public outreach strategies are important but insufficient. We are working with wastewater agencies, industries, citizen groups, and other regulatory agencies to develop innovative pollution prevention strategies.
- ***Assist in development of new State Toxicity Plan requirements.*** The State Water Board intends to consider new toxicity water quality objectives and an associated implementation program that will supersede significant portions of our Basin Plan. We are engaged in this process and will update the Board upon reaching significant milestones. State Board staff hope to release a draft for public review late this year and have a proposal ready for State Board consideration next summer. If adopted, understanding and implementing the new requirements will be very challenging for all stakeholders. We anticipate a significant need to assist dischargers with compliance.
- ***Track and respond to reported spills and other water quality-related emergencies.*** We track and respond to all incidents that could affect water quality. Although we are not "first responders," we review every spill and complaint we receive from the State Office of Emergency Services and our spill hotline, and we investigate or forward significant incidents to appropriate staff for followup. All supervisors and managers take turns checking the spill hotline during nights and weekends.

## Division Programs

**NPDES Permit Program –** The federal Clean Water Act requires that all discharges to waters of the United States be covered by NPDES permits. "NPDES" stands for "National Pollutant Discharge Elimination System." U.S. EPA has delegated NPDES permit issuance to the Water Boards, but permitting must follow federal regulations, which include the requirement to review and reissue all NPDES permits every five years. NPDES permits contain requirements that limit pollutants in discharges. After considering public comments, the Board adopts new permits and reissues existing permits at public hearings.

**Individual NPDES Permits –** The Division oversees permits for municipal wastewater treatment plants, their associated sanitary sewage collection systems, and industries that directly discharge treated wastewater to surface waters. (The Watershed Management Division oversees wastewater discharges to land and most stormwater discharges.) The Division oversees about 75 individual NPDES permits covering about 80 treatment facilities. About two thirds are municipal wastewater treatment facilities, which together discharged 425 million gallons per day of treated wastewater within the Region during FY 15/16 (down from 453 million gallons per day in FY 12/13). We very roughly estimate that about seven percent of wastewater is diverted from discharge and recycled, thereby offsetting some potable water use.

**General NPDES Permits –** In addition to individual NPDES permits, the Division oversees five general NPDES permits. General permits are an efficient and equitable way to regulate similar types of discharges. When a general permit exists for a particular type of discharge, a facility may seek coverage under that permit by filing a notice of intent to comply with the permit. After we verify that the facility qualifies, we issue an authorization to discharge. Currently, about 110 facilities are enrolled under the following general permits:

- Fuels/VOCs Groundwater Pump and Treat Discharges
- Potable Water Treatment Filter Backwash Discharges
- Brackish Extracted Groundwater Discharges
- Discharges from Aggregate Quarries and Sand Mining
- Discharges from Dry Docks and Shipyards

The Division also oversees seven statewide general permits issued by the State Board. These address discharges from about 130 sanitary sewer collection systems and about 100 community water supply systems, utility vault discharges, and aquatic pesticide, herbicide, and fungicide applicators.

**Pretreatment and Pollution Prevention –** Pretreatment and pollution prevention both aim to prevent pollution at its source. The pretreatment program requires municipal wastewater agencies to reduce industrial pollution before it reaches their treatment plants; many agencies regulate industries that discharge to their facilities. U.S. EPA provides contract support for conducting pretreatment program inspections and audits to ensure compliance but may discontinue its support in the next year.

We also require municipal wastewater agencies to implement pollution prevention programs that encourage residents and businesses to reduce wastewater pollution. We support these efforts by working with the Bay Area Pollution Prevention Group (a BACWA subcommittee) and other agencies. We also present the Dr. Teng-chung Wu Pollution Prevention Award each fall.

**Enforcement –** The Division's Enforcement Section assists all Board divisions, primarily with enforcement that involves penalty assessment and special projects that target compliance within a particular industry or program. Other Board divisions lead their own informal and some formal enforcement actions. However, if violations are significant or chronic, or involve unregulated discharges, other divisions can enlist the Enforcement Section's expertise.

Enforcement actions range from informal actions (conversations, letters, and notices of violation) to formal actions (cleanup and abatement orders, cease and desist orders, and administrative civil liability penalties). Orders require violators to correct existing violations and prevent future ones; penalties assess fines for past violations. The Board has authorized the Executive Officer to take certain formal actions, such as issuing cleanup and abatement orders and assessing penalties where there is minimal public comment. The Water Code prescribes mandatory monetary penalties for many NPDES violations of numeric discharge limits. Other penalties are determined in accordance with the State Board's Enforcement Policy, which has recently been updated.

**Cross-Division Activities**

- ***Contaminants of Emerging Concern***. We work with the Planning and TMDL Division to ensure that monitoring programs consider contaminants of emerging concern. We also work with the Watershed Management Division to ensure that recycled water does not contain harmful concentrations of these contaminants.
- ***TMDLs and Basin Planning***. Because TMDLs and other Basin Plan amendments often directly affect NPDES permit requirements, we work with Planning and TMDL Division staff as they develop these regulatory programs to ensure that implementation provisions are workable.
- ***Nutrients***. We work with the Planning and TMDL Division to implement the Nutrient Management Strategy.
- ***Stormwater.*** We work with the Watershed Management Division to ensure consistency across stormwater permits. The Watershed Management Division oversees municipal, industrial, and construction stormwater permits. However, when a site involves both wastewater and stormwater, we often cover stormwater within the wastewater permit. This streamlines the permitting process and provides the discharger with just one permit and one staff contact for oversight purposes.
- ***Recycled Water***. The Watershed Management Division takes the lead on permitting recycled water projects, but we coordinate permitting closely because these projects often involve wastewater treatment facilities with NPDES permits.
- ***Near-Shore Discharges and Wetland Restoration.*** We work with the Planning and TMDL and Watershed Management divisions to coordinate efforts to permit near-shore discharges in a manner that best supports water quality and wetland habitat improvements, and infrastructure protection.
- ***Enforcement***. The Enforcement Section coordinates with all other divisions to provide enforcement support and take on major enforcement projects. This includes monitoring the spill hotline each day, relaying reports to the affected division, and coordinating field inspections and responses as necessary.

# Watershed Management Division – October 2017

The Watershed Management Division, under Division Chief Keith Lichten, oversees stormwater runoff control, which includes developing and overseeing large municipal stormwater permits and implementing the statewide permits for industrial stormwater, construction stormwater, Caltrans stormwater, and small-municipality stormwater. In addition, the Division oversees the stream and wetland protection, recycled water, and onsite wastewater treatment programs. Its FY 2017-18 budget provides for 17.3 staff positions. The Division works with an additional 2-3 staff dedicated to work for specific agencies, such as Caltrans and flood management agencies, whose positions are indirectly funded by those agencies.

## Priorities for the 2017-18 Fiscal Year

- Work with the Bay Area Stormwater Management Agencies Association (BASMAA), environmental organizations, and the public on implementation of the Board's 2015 Municipal Regional Stormwater Permit, including implementation of measures to control PCBs, mercury, and trash and the development of green infrastructure plans.
- Bring regionwide general waste discharge requirements (WDRs) for wineries to the Board for its consideration.
- Complete actions to streamline permitting for creek and wetland fill projects and in-Bay wetland restoration projects that address anticipated sea level rise.

## Other 2017-18 Fiscal Year Division Activities

- Achieve beneficial clean water outcomes, recognize applicant project delivery goals, and manage increased workload associated with significant new funding sources:
    - Work with Caltrans and municipalities to anticipate new projects associated with Senate Bill (SB) 1 gas tax funding and opportunities for efficient implementation of clean water requirements to treat runoff and address hydromodification impacts. Identify opportunities for efficient advance planning and timely completion of creek and wetland mitigation; and
    - Coordinate with the Planning Division and external stakeholders on regionwide approaches to addressing sea level rise, including efficient permitting and monitoring approaches for in-Bay wetland restoration projects funded by Measure AA.
- Oversee statewide stormwater permits for industrial, construction, and Caltrans activities:
    - Work with Caltrans on its implementation of actions to control trash and its coordination with municipalities on trash and PCB and mercury TMDL control measures;
    - Inspect facilities, track compliance, and recommend enforcement as appropriate for permittees enrolled in the statewide general permits;
    - Recommend enforcement as appropriate for late annual reports (industrial and construction permittees); and
    - Coordinate with State Board staff on construction stormwater permit reissuance.
- Oversee creek and wetland fill projects, including:
    - Bringing before the Board for its consideration:

        - General WDRs for in-Bay overwater structures (e.g., pile placement/replacement activities);
        - WDRs for stream maintenance programs and flood management, including reissuance of existing stream maintenance WDRs for the Napa County Flood Control and Water Conservation District; and
        - WDRs and Water Quality Certification for the South Bay Shoreline Project, intended to provide flood protection for Alviso and parts of San Jose;
    - Reviewing applications and expeditiously issuing water quality certifications;
    - Overseeing and permitting stream and wetland restoration projects and habit conservation plans; working with interested entities to develop general WDRs for restoration projects; and bringing before the Board for its consideration reissuance of the East Bay Regional Park District maintenance WDRs; and
    - Coordinating with State Board staff on the development of the Statewide Dredge and Fill Policy.
- Review applications and approve water recycling projects pursuant to the Board's and the State Board's general water recycling requirements.
- Review, coordinate with other regions, and approve county-based Local Agency Management Programs for Onsite Wastewater Treatment Systems, per State Board policy.

## Division Programs

**Municipal Stormwater –** Under the federal Clean Water Act, the "Phase I" program for Municipal Separate Storm Sewer Systems (MS4s) requires municipalities that serve populations of 100,000 or greater to implement a stormwater management program as a means to control polluted stormwater discharges from the MS4s. In 2009, the Board consolidated the Region's Phase I programs into one permit by issuing the Municipal Regional Stormwater Permit (MRP) to regulate stormwater discharges from 76 municipalities and local agencies in Alameda, Contra Costa, San Mateo, and Santa Clara counties, and the cities of Fairfield, Suisun City, and Vallejo. In 2015, the Board reissued the MRP, and, this year, we are continuing to focus our work with the MRP permittees on implementing the MRP's requirements for PCB and trash reduction and the development of green infrastructure plans. In particular, we will focus on permittee progress towards meeting the MRP's 70% trash reduction requirement and completion of appropriate progressive enforcement for those permittees that have not met it. Pursuant to an agreement with the Central Valley Regional Water Board and several east Contra Costa County municipalities, we also intend to bring before the Board a proposed amendment to add those municipalities as MRP permittees. They are already generally complying with the MRP and would be added rather than joining a different regionwide municipal stormwater permit adopted by the Central Valley Region.

In addition to the MRP, Caltrans is covered under a statewide Phase I stormwater permit. This year, we are focusing on implementation of the trash reduction requirements in Caltrans' permit and ensuring that Caltrans is coordinating with Phase I municipalities on these and related TMDL requirements. We also anticipate that increased gas tax funding from SB 1 will result in a number of Caltrans projects unable to meet, onsite, their stormwater treatment requirements. We will work with Caltrans and the municipalities to implement opportunities for "alternative compliance" for those projects—construction of clean water controls off of Caltrans right-of-way, focused on areas where those projects could provide significant trash, PCBs, or mercury load reduction, as described below.

The Clean Water Act's "Phase II" program for MS4s requires municipalities that serve populations of 100,000 or less and non-traditional permittees, such as BART, UC Berkeley, and ports, to implement a stormwater management program as a means to control stormwater discharges from the MS4s. In early 2013, the State Board issued a statewide general permit for the discharge of stormwater from these "small" MS4s. The following municipalities in our region are covered under this statewide general permit: Marin County and its cities, Napa County and its cities, the City and County of San Francisco (in selected areas of the City), Solano County and the City of Benicia, and Sonoma County and the cities of Petaluma and Sonoma. The permit also covers 21 non-traditional permittees. This year, we will focus our work with BART to recognize and develop a plan to address upcoming trash reduction requirements, including coordination with adjacent municipalities, and to complete appropriate green infrastructure implementation planning for BART's upcoming transit village redevelopment projects. Finally, we will coordinate with State Board staff on potential changes for the general permit's reissuance, including the addition of school districts and associated requirements.

*Trash Control* – During this FY, we will continue to leverage existing permit language and the State Board's Trash Amendments to the Inland Surface Waters and Ocean Plans to ensure that municipal permittees and Caltrans are moving expeditiously to reduce discharges of trash from MS4s to receiving waters. This includes working with non-traditional permittees and Caltrans to identify areas where they can effectively coordinate with MRP permittees on trash reduction actions (e.g., highway on- and off-ramps, State Highways that are also arterial roads, and commuter corridors around BART stations), and working with Caltrans to support its implementation of cooperative agreements between Caltrans and municipalities, which are more-quickly able to implement capital improvements for trash control (e.g., hydrodynamic separators in storm drains to capture trash). Finally, we will continue to work with municipalities to understand steps they are taking to address the impacts of homelessness, including direct discharge of trash to receiving waters.

*Caltrans stormwater deliverables* – We are working with Caltrans to develop the resources necessary to increase its rate of implementation of trash control measures on its rights-of-way and to identify opportunities for increased coordination with municipalities to control trash, PCBs, and mercury. Finally, we will continue to work with Caltrans to identify effective alternative compliance approaches to complete required stormwater treatment when a project is unable to meet its full treatment requirements onsite. This may include identifying treatment opportunities in municipal rights-of-way that can be implemented via cooperative agreements with those municipalities. These can be an opportunity, in particular, to address PCB reduction from "old urban" and "old industrial" areas. Second, this may include retrofit projects on Caltrans' own right of way.

**Industrial Stormwater -** Facilities that involve a variety of industrial activities must be covered under the statewide industrial stormwater general permit. Facilities covered under the industrial general permit include manufacturing operations, transportation facilities where vehicles are maintained (including fueling and washing), landfills, hazardous waste sites, and other similar operations. A facility seeking coverage under the general permit must file a notice of intent (NOI) with the State Board to comply with the general permit. At the time it files its NOI, the facility must have prepared and be implementing a Stormwater Pollution Prevention Plan (SWPPP) and regularly monitor the effectiveness of the SWPPP. Covered facilities must submit annual reports on SWPPP implementation to the Regional Water Boards. The Water Code requires us to enforce against facilities that do not timely submit their annual reports. There are approximately 1,700 facilities covered under this general permit in our region.

**Construction Stormwater -** Construction activities that disturb one acre or more of land, including construction activities on smaller sites that are part of a larger project, must comply with the statewide construction stormwater general permit that regulates stormwater runoff leaving construction sites. A construction site owner/operator seeking coverage under the general permit must file an NOI with the State Board to comply with the general permit. At the time it files its NOI, the owner/operator must have prepared and be implementing a SWPPP and regularly monitor the effectiveness of the SWPPP. Each covered site must submit an annual report on the implementation of its SWPPP to the Regions. There are approximately 1,400 facilities covered under this general permit in our Region.

*Industrial and Construction Stormwater Program Site Prioritization*

With only 2.5 PY staff time to cover these programs' approximately 3,100 facilities, we prioritize cases to maximize our effectiveness, recognizing the key role that municipal inspectors under the MRP and Phase II stormwater permits play in ensuring industrial facilities and construction sites operate to control runoff. Facilities receive attention based on the following:

1. *Complete required administrative actions* – State Board staff are responsible for initially enrolling permittees under these permits. Regional staff are responsible for subsequent actions, including reviewing and approving termination or change of permit coverage requests. We review and process approximately 650 Notices of Termination (NOTs) and 450 Changes of Information (COIs) annually. In some cases, we inspect the facility to verify whether termination or coverage change is warranted.

2. *Sites with a history of violations* – Violation history influences our choice of which sites to inspect as well as the progressive enforcement approach we take with any particular facility.

3. *Respond to complaints and referrals* – We receive dozens of complaints and referrals each year, and these are always a high priority for our inspection and followup:

    a. *Internal referrals* – we support our staff working in other regulatory programs where there is a nexus with these permits. This allows us to coordinate our messages to responsible parties, identify cross-program compliance issues, evaluate compliance patterns within municipal stormwater permittees' jurisdictions, and address pollutant-specific concerns.

    b. *External referrals* – we receive complaints from members of the public and referrals (or requests for help and coordination) from municipal staff and other local agencies, and we respond with inspections and assistance.

4. *Focus on industry sectors that have known high pollution risk or may have widespread under-compliance* – To the extent permitted by other priorities, we focus on a short list of specific industries each year as a way to efficiently address potentially significant water quality threats. By inspecting multiple facilities across an industry sector (e.g., concrete batch plants, auto dismantlers, or metal recyclers) or in a particular geographic area within a short period of time, and by taking progressive enforcement as each site warrants, we can get the attention of, and raise compliance across, much of that sector.

    *Program Challenges:* We are continuing to work with the MRP and Phase II permittees on their roles and opportunities for Board staff assistance and coordination. Separately, to improve our internal efficiency, we are working to develop and implement tablet-based forms for inspections, which could significantly reduce staff time associated with inspection data entry and

communication with facility staff of inspection results and followup.

**Stream and Wetland Protection Program –** The Division oversees the regulation of discharges of fill and dredged material under federal Clean Water Act section 401 and the Porter-Cologne Water Quality Control Act, with the exception of dredging activities consistent with the Long Term Management Strategy for the Placement of Dredged Material, which are overseen by the Planning Division. The Stream and Wetland Protection Program addresses protecting and restoring streams and wetlands and minimizing impacts from non-wastewater discharges to all waters of the State in our region, but it focuses especially on minimizing impacts to wetlands, riparian areas, and headwaters because these water bodies have high resource value, are vulnerable to being filled, and are not systematically protected by other State and federal regulatory programs. Our implementation of the Program gets us involved with the protection of special-status species, the regulation of hydromodification impacts, and the restoration of creeks and wetlands, such as the South Bay Salt Pond Restoration Project and the Cal EcoRestore project in the Suisun Marsh. The Program encourages watershed-level analysis and protection, because some functions of wetlands, riparian areas, and headwater streams—including pollutant removal, flood water attenuation, and habitat connectivity—are better protected at the watershed than project-specific level.

Implementation of the Program focuses on the issuance and oversight of water quality certifications under Clean Water Act section 401 and of WDRs under the Water Code. Certifications can be issued by the Executive Officer, while WDRs must be adopted by the Board. Thus, adoption of WDRs is usually reserved for projects that are long-term, have significant impacts, and/or have significant public interest. The Division is issuing approximately 300 certifications annually, a 20% increase over the previous year, due in part to the significant rains of the 2016-17 wet season, and we expect to see that increase continue, due to the amount of work that remains to be done, but for which we have not yet received permit applications.

This year, in addition to our regular program activities, we are: coordinating with State Board staff on the development of the State's new dredge and fill policy; expanding to our whole Region implementation of program management tools that will allow us to better track mitigation requirements in certifications; coordinating internally and with other agencies to address project and policy issues related to anticipated sea level rise; and anticipating shifts needed to address projects associated with Cal EcoRestore mitigation projects in the Suisun Marsh, Measure AA, and anticipated workload associated with SB 1 funding, including bridge and culvert replacement and reconstruction by both Caltrans and Bay Area municipalities.

*Program Challenges.* Limited staff resources remains a significant program challenge, not only because of the number of permit applications and their complexity, but also because we often can be most effective when we coordinate early in a project's development, both with an applicant and with other affected agencies. To improve our ability to prioritize resources for key projects, and to streamline certification issuance while also developing permits that will work towards long-term improvements in water quality and beneficial uses, we are continuing to develop and issue "programmatic" permits. These include WDRs for flood management maintenance work and the general WDRs for overwater structures that we expect to bring before the Board in early 2018. We are also coordinating with the Planning Division and external stakeholders on development of a regional wetlands monitoring program that may be focused, at least initially, on Measure AA projects, to allow the most efficient use of those resources to achieve restoration goals while still ensuring necessary information about restoration project performance is collected—data that is used to judge project success, for adaptive management of built projects, and to inform design

changes in future projects. Finally, a significant opportunity remains: ensuring key dischargers apply necessary expertise to projects. For example, key flood control project designs may be developed without a full understanding of sediment transport processes, which can compromise their function. Consultants hired may have expertise in hydraulics, but not sediment transport. We will continue to communicate with permit applicants about the kinds of expertise and analyses needed for the design of effective projects, and the benefits of that expertise: better-designed projects that are often more resilient and have lower operation and maintenance costs.

**Recycled Water -** The purpose of the State Board's Recycled Water Policy is to increase the use of recycled water from municipal wastewater sources that meets Water Code requirements in a manner that implements State and federal water quality laws. When used in compliance with the Recycled Water Policy and all applicable State and federal water quality laws and regulations, our Board has found that recycled water is safe for the approved uses. The Division oversees recycled water projects largely through the Board's 1996 general WDRs for water recycling. The 1996 general WDRs served as the model for statewide general WDRs adopted by the State Board in 2014, and we expect to gradually transition permittees under the 1996 order to the statewide WDRs.

**Onsite Wastewater Treatment –** The Division oversees the Board's program for regulating discharges of treated wastewater to land via WDRs. Onsite wastewater treatment systems (OWTS) are useful and necessary systems that allow habitation at locations that are removed from centralized wastewater treatment systems. The Board has delegated oversight of most OWTS to counties under memoranda of understanding but must update these delegations consistent with the State Board's OWTS Policy. The mechanism laid out in the OWTS Policy for this delegation is the development, by each county, and approval, by each Regional Water Board, of a Local Agency Management Program (LAMP). LAMPs describe how local agencies will review, approve, and oversee septic systems consistent with the OWTS Policy, but in a way that is appropriate for their local soil and groundwater characteristics, demographics, and planning policies. In May 2016, multiple Bay Area counties submitted LAMPs to us, and they are under review this year. More information on LAMPs and our process is in the Information Item in the November 2014 Board Agenda Package.

The Board also considers for adoption WDRs prepared by Division staff for facilities such as wineries, camps, or agricultural facilities that are not connected to centralized wastewater treatment systems. We issue WDRs for systems with design flows over 10,000 gallons per day or that contain high strength waste (per requirement by the OWTS Policy) and for any other system that, per our professional judgment, requires direct oversight by the Board. Existing WDRs are reviewed by Division staff on a periodic basis to determine whether they need to be updated or revised.

*Program Challenges* – Staff resources remain challenging, with a total of only 2 PY responsible for approximately 210 permitted facilities, including recycled water users, and the OWTS program regionwide. Significant interest in recycled water—both by municipalities and private parties, including high tech companies, requires engagement as programs are developed. However, a winery general permit, which we plan to present to the Board this year, would bring under permit and should enable electronic reporting and administration of permit requirements for approximately 870 wineries regionwide. Similar to the industrial stormwater program, where municipal inspectors are the largest component of compliance assurance, many of those facilities would be likely to receive primary oversight from an approved county regulatory program (i.e., Napa County's established program), allowing for more-efficient and effective clean water regulation.