

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

STAFF SUMMARY REPORT – Laurent Meillier  
 MEETING DATE: August 8, 2018

ITEM: **5D**

SUBJECT: **Cleanup Programs – Status Report Including Case Closures**

DISCUSSION: This is a semiannual status report on the Board’s three cleanup programs: the Underground Storage Tank (UST) Cleanup Program, the Site Cleanup Program (SCP), and the Military Cleanup Program (also known as the Department of Defense or “DoD” program). These programs oversee the investigation and cleanup of soil and groundwater pollution. This report summarizes our fiscal year (FY) 2017-18 performance-measure accomplishments and provides updates on key activities in the cleanup programs.

**Performance Measures**

The Regional Water Boards have been using performance measures for several years to gauge our effectiveness in restoring and protecting water quality. For the cleanup programs, we have two measures: number of cases closed and number of cases starting active remediation.

Results for the performance measure *Number of Cases Closed* are shown below. This measure indicates the elimination of threats to human health and water quality. We exceeded our target in the SCP program but were below benchmark in the UST and DoD programs. Underperformance in the UST program is caused by several factors including: discharger recalcitrance, staff focus on high-priority SCP cases, and staff changes.

Cleanup Program	FY 17 - 18 Cases Closed		
	Target	Actual	% of Target
UST	35	31	89%
SCP	35	43	123%
DoD**	30	19	63%
Total	100	93	93%

\*\*internal target (no statewide target)

Results for the performance measure *Number of Cases Starting Active Remediation* are shown below. This measure indicates the transition from site investigation to actual cleanup, which leads to the elimination of threats to human health and water quality. We exceeded our targets in all three programs. The significant increase in SCP cases starting remediation this year

is largely due to the availability of grant funding and active redevelopment on Brownfield sites.

Cleanup Program	FY 17 - 18 Cases Starting Active Remediation		
	Target	Actual	% of Target
UST	5	10	200%
SCP	20	43	215%
DoD	5	6	120%
Total	30	59	168%

Figure 1 in Appendix A shows how our targets and results have tracked over time in the three cleanup programs. To put this in perspective, Figure 2 in Appendix A shows the total number of active, inactive, and closed cases in each program over time.

**UST Program**

U.S. EPA is providing assistance for stalled UST cases to move them into the next regulatory phase. In June 2018, we conducted a meeting with U.S. EPA and State Water Board staff to review 26 stalled UST cases, or 57% of our stalled UST cases. We successfully defined a regulatory oversight path forward for each of these cases.

2014 State legislation requires the permanent closure of all single-walled USTs by December 31, 2025. There are 765 single-wall USTs in our region. Based on a State Water Board analysis, we expect about 30% of these USTs have had releases whose cleanup will require our oversight.

We anticipate receiving additional UST cases from local oversight agencies during FY 2018-19. Some will come from Solano County’s Local Oversight Program, due to its reduced caseload. We may also receive a subset of Alameda County Water District’s UST cases based on challenges in meeting its closure goal.

As previously noted, the State Water Board launched the Expedited Claim Account Program (ECAP) to improve the cost effectiveness of its UST Cleanup Fund. State Water Board staff recently reported that ECAP is saving about \$100,000 per case and shortening the time-to-closure by 11 months per case. So far \$24 million has been disbursed through this program. Our region currently has six UST cases enrolled in ECAP.

**SCP Program**

The SCP Program continues to benefit from the funding mechanisms provided by the Site Cleanup Subaccount program created by SB445. The Program exceeds both the closure and starting remediation targets. This is due to both the grant mechanism that has created both funding for sites with limited ability to pay and funding for the staff time to work on cases without a discharger willing to reimburse us for our oversight time. Appendix B

provides details on the work we are doing with SB445 funds in four project areas – unfunded cases, dry cleaner spill sites, abandoned and inactive mines, and sustainable groundwater management – as well as SB445 grants.

Several of the highest priority cases we have addressed this year involve human exposure to solvents in indoor air. When volatile chemicals, like solvents, are released to soil and groundwater they can volatilize into the vapor phase and move up through soil into the indoor air of buildings through a process referred to as vapor intrusion. Exposure to the solvent trichloroethene (TCE) above indoor-air action levels, for even a few days or weeks, can potentially cause reproductive toxicity in humans, so we need to require prompt responses. We have had two sites this year with TCE concentrations in indoor air exceeding the indoor-air action levels. At one site, the onsite business was shut down and mitigation systems were installed to protect several nearby residences. At another site, air purifying systems were put in place in an apartment building to protect occupants until the building can be redeveloped. We are providing oversight to ensure that the systems are monitored and working effectively.

### **DoD Program**

Our eight Board staff in the Department of Defense (DoD) cleanup program oversee investigation and cleanup of former military facilities, including those that have transferred from the military to local entities, such as a city or its master developer, for redevelopment or open space. We currently oversee 25 DoD facilities in our program that comprise about 350 military cleanup sites.

Typically, much of the cleanup is completed by the time of land transfer. Exceptions include petroleum sites, landfills, and wetland restorations, which may require continued oversight by our DoD staff after transfer. Board staff are also involved when a former military base undergoes redevelopment to ensure requirements are established that are protective of the new uses. Collectively, these projects are called *military-privatized sites*. After the land transfer, we stop charging our staff time to the DoD program and enroll the new site and land owner in the SCP cost recovery program. We currently have 15 such projects comprising about 50 military-privatized sites.

Since DoD program inception in the mid-1990s, about 900 cleanup sites (military and privatized) have been closed. We currently anticipate closing 30 in the current fiscal year.

At this point, the DoD program workload consists mainly of the more complex sites with longer cleanup timeframes. Many of these sites are located near a shoreline, where contamination resides within the tidal mixing zone, making assessment and cleanup a significant challenge.

### **Vapor Intrusion Guidance**

As we discussed in our May 2018 Status Report, staff from our office, the State Water Board, and the State Department of Toxic Substances Control have created a consensus approach to the investigation and risk evaluation of vapor intrusion. The guidance provides a standardized approach for vapor intrusion assessments conducted throughout the State and proposes development of a California vapor intrusion database to further refine the approach. For the past year, we have been conducting stakeholder outreach and refining the guidance accordingly. The document is currently undergoing management review statewide. The team intends to post the interim final version of the document late this summer and encourage implementation statewide. We will receive public input during the first year of implementation and will revise the guidance as warranted. We also plan to update [Interim Framework for Assessment of Vapor Intrusion at TCE-Contaminated Sites in the San Francisco Bay Region](#).

RECOMMEN-  
DATION:

This is an information item only and no action is necessary.

File No. 1210.47 (LMM)

Appendix A – Trends in Performance Targets and Results

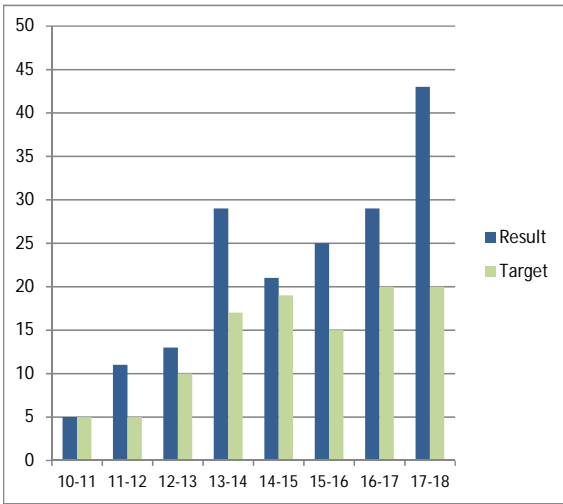
Appendix B – SB445 Site Cleanup Subaccount Projects

## Appendix A

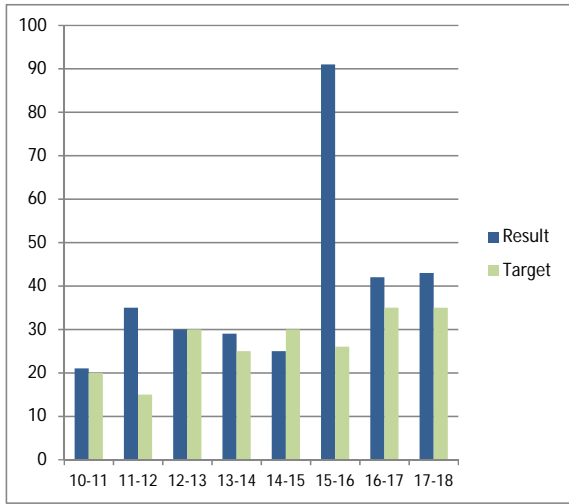
### Trends in Performance Targets and Results

**Figure 1: Comparison of Performance Measures**  
**Performance Targets and Results for two performance measures used for the**  
**three cleanup programs**

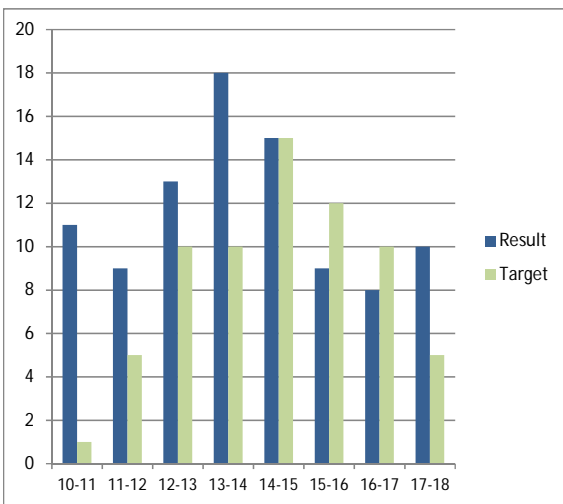
SCP - Cases Starting Remediation



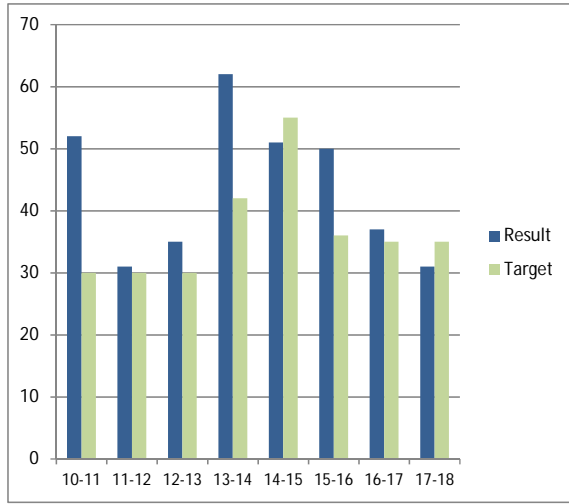
SCP - Case Closures



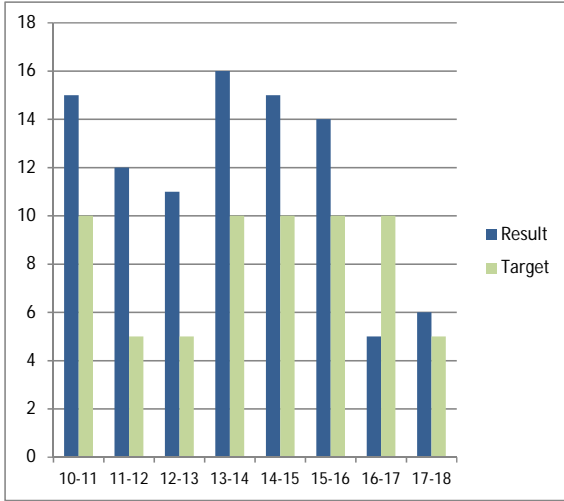
UST - Cases Starting Remediation



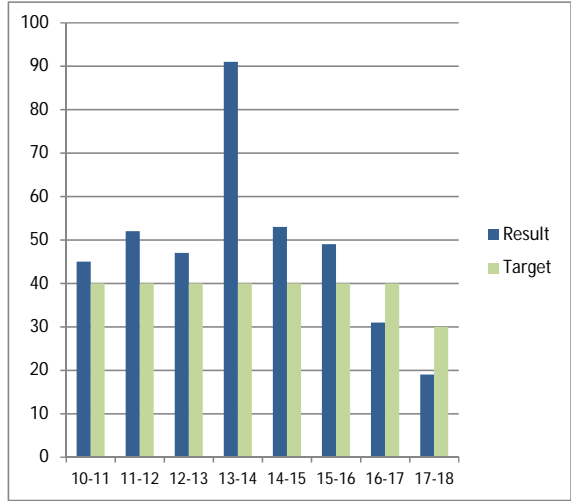
UST - Case Closures



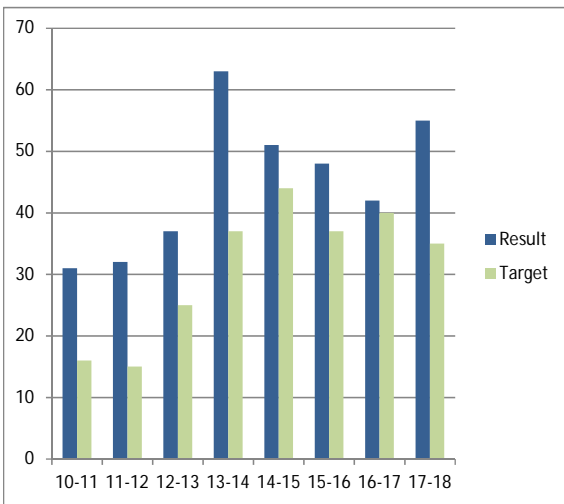
DOD - Cases Starting Remediation



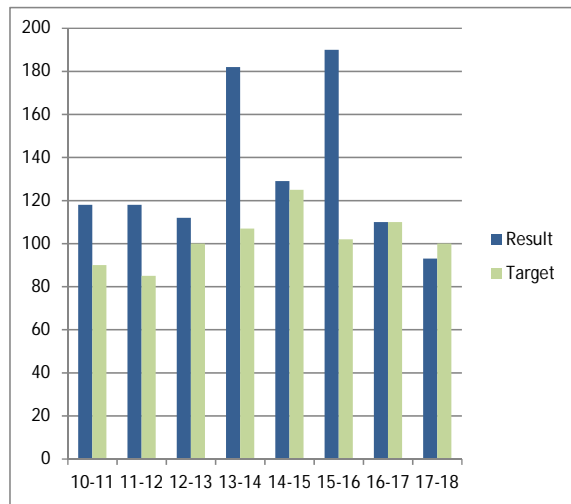
DOD - Case Closures



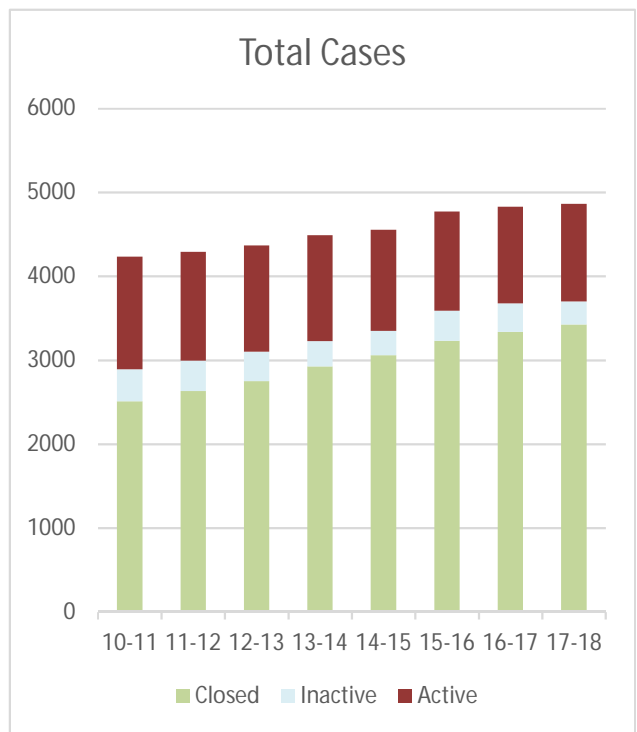
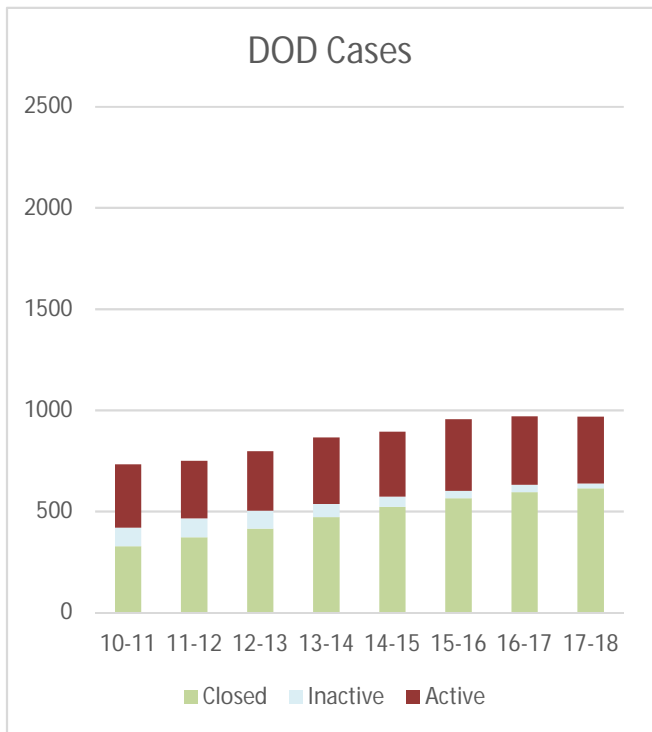
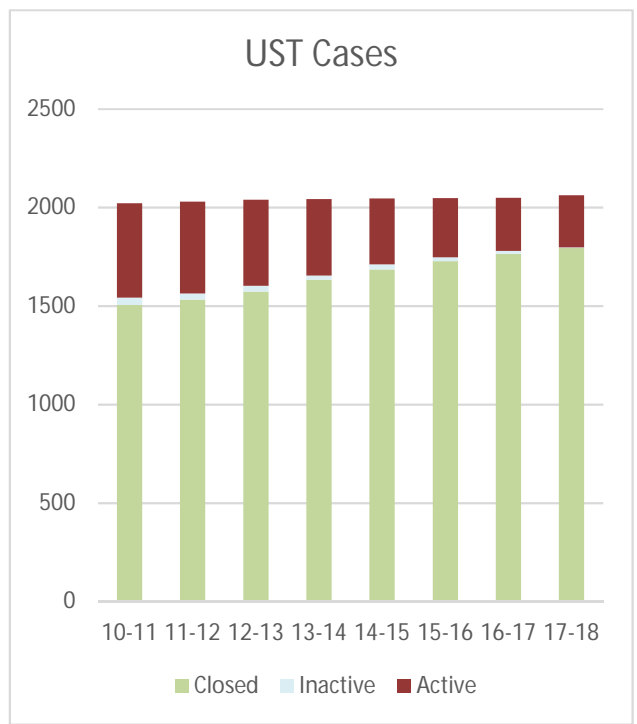
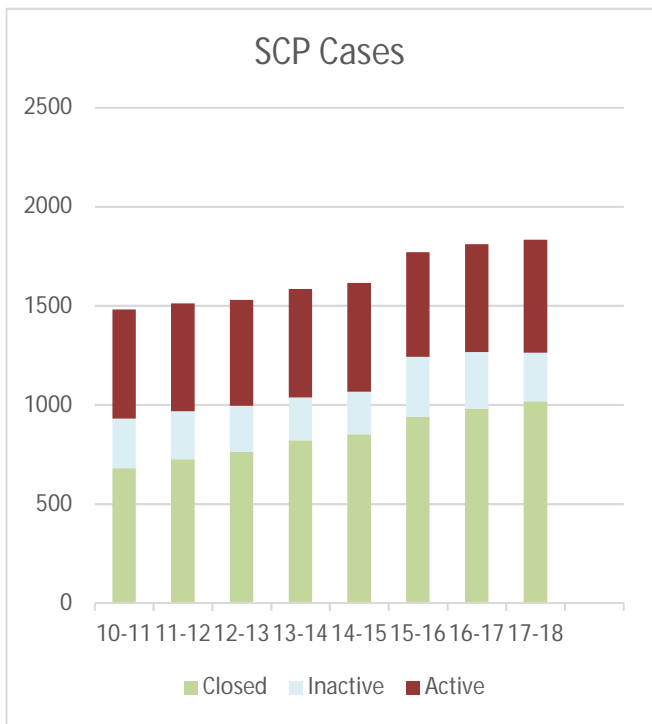
Combined - Cases Starting Remediation



Combined - Case Closures



**Figure 2: Status of Cases  
in the Three Cleanup Programs**





## Appendix B

### SB445 Site Cleanup Subaccount Projects

Our Region receives 2.8 positions funded through the SB445 Site Cleanup Subaccount. Using this staff time, we are continuing to work on four projects: unfunded cases, dry cleaner spill sites, unremediated mines, and sustainable groundwater management. We also use this staff time to oversee cases that receive SB445 Site Cleanup Subaccount grants and contractor services. As the number of these cases grows, we will need to use an increasing portion of our time to oversee them. This will reduce the amount of time we can devote to these four projects. We will explore alternative ways to continue these projects and will brief you on our findings. Below is some project-specific news:

***Unfunded Cases*** – The project initially focused on screening our SCP backlog. With that task completed in FY 15-16, the focus shifted to overseeing the highest-priority unassigned cases. Case closures are the highlight for this fiscal year. For the second year in a row, the case closures from this project account for about one third of the closures for the SCP program. Other highlights for the year include:

- Provided oversight for 77 unfunded cases
- Closed 16 cases
- Made 16 non-case determinations, recategorizing cases that are managed by other agencies or should not have been opened
- Brought 5 cases into cost recovery

In FY 18-19 this project will be to continue to oversee the highest priority of our unfunded cases. For each, our goal is to bring them into our cost recovery oversight program, encourage the responsible parties to apply for Site Cleanup Subaccount Grant funding, or review the cases for possible low threat closure. The Site Cleanup Subaccount Grant funding awarded for two new cases in our region (Bayshore Equipment Rentals and Williams Manufacturing), with additional applications submitted and being considered.

***Dry Cleaner Spill Sites*** – There are several thousand former and current dry cleaners in our region. We estimate that more than half of them have had solvent spills. This project proactively identifies and investigates current and past dry cleaner locations where there have been solvent releases and where those releases pose significant threats to major groundwater resources. Since the project kicked off in November 2015, we have sent site history directives to 130 sites. Of those 130 sites, we have shifted 11 sites into our cost recovery program because investigations identified pollution that warranted cleanup. We have also issued no-action letters to 14 sites because their history reports indicated there was not a concern (e.g., drop-off-only locations or recent dry-cleaning operations not prone to spills).

Starting this FY, we are putting the Dry Cleaner project in abeyance: (i) we were not finding cases impacting supply wells or critical groundwater basins and (ii) the new vapor intrusion guidance will demand more staff oversight for existing sites so we have less capacity to handle new sites. We will shift the 0.7 person-years that we had working on the project to our unfunded case project so we can emphasize eliminating our existing backlog of cases. After eliminating the backlog, we will evaluate relaunching the dry cleaner project. An exception will be newly discovered dry cleaner sites near drinking water wells with known impacts from dry cleaner chemicals. These dry cleaner sites will be handled in the unfunded case project.

**Abandoned Mines** – Using an advanced desktop mapping and data analysis process, we completed the prioritization of inactive mines within our Region. Mines were ranked according to known or potential water quality impacts. We used the in-house handheld X-Ray Fluorescence Spectrometer for soil analysis at Alma Sulfur mine in the Oakland Hills. Due to concerns over potential threat to human health unrelated to water quality, we referred the Alma and the Newman Chromium Mining District to the Department of Toxic Substances Control. We also completed inspections at St. John’s and Hastings mercury mines our two highest ranking sites. At the highest ranked mine, we conducted an analysis to determine the propensity of mercury to methylate and therefore become bioavailable. Subsequently, we discussed with the Dischargers options for interim cleanup action and funding at this Site. We presented the abandoned mines project prioritization approach and initial results to regulators and scientists. In cooperation with the California Abandoned Mine Lands Agency Group, we also participated to the development of a statewide mine prioritization tool. Results of this work may be found at:

[http://www.conservation.ca.gov/dmr/abandoned\\_mine\\_lands/Documents/Technical%20Report%20CAMPT%20project\\_Final%20With%20Appendices.pdf](http://www.conservation.ca.gov/dmr/abandoned_mine_lands/Documents/Technical%20Report%20CAMPT%20project_Final%20With%20Appendices.pdf). A summary of our prioritization and analysis approach can be found on the project webpage at:

[https://www.waterboards.ca.gov/sanfranciscobay/water\\_issues/programs/MinesCleanupProgram.html](https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/MinesCleanupProgram.html).

In FY 18 - 19, we plan to complete inspections, preliminary investigations and reporting for the highest ranked mines. We will finalize the development and implement an evidence-based approach to prioritize these mines for regulatory action. We will initiate environmental availability testing at mercury mines. We will also draft investigation and cleanup requirements, undertake responsible party searches, and provide grant application assistance. We will report the progress on this project via updates to the Quality Assurance Project Plan and Mine Status/Summary GIS layer available on our website.

**Sustainable Groundwater Management** – Engaging the local agency planning process to identify baseline conditions, drinking water well impacts, and localized salt and nutrient areas of concern is essential to protecting and restoring groundwater beneficial uses. The goal is to identify baseline groundwater conditions, share information amongst our regulatory programs, and make recommendations for selective use of our regulatory tools to control discharges and drive further source identification and abatement.

The internal team continues preparing “quick look” fact sheets for are most groundwater basins to summarize water quality and prioritize basins that may need salt and nutrient management plans (SNMPs) or further source investigations. We’ve evaluated SNMPs for the Sonoma, Livermore and Santa Clara Valleys and brought resolutions of support to you in December 2014, March 2016, and November 2016, respectively. We are currently working with the Alameda County Water District on developing an SNMP for the Niles Cone (near Fremont) and with Napa County on an SNMP for the Napa Valley.

The team is also developing and prioritizing source-investigation strategies to address impacted supply wells. We are coordinating with the State Water Board’s Division of Drinking Water to receive real-time notification of supply well contaminant impacts. We are also using the State Water Board’s Groundwater Ambient Monitoring and Assessment (GAMA) program to view and evaluate data from drinking water supply wells.