

**STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

Staff Report for Regular Meeting of July 18 – 19, 2019

Prepared on June 24, 2019

ITEM NUMBER: 8

SUBJECT: Site Cleanup Program Update

STAFF CONTACTS:

- Greg Bishop, Senior Engineering Geologist / Site Cleanup Program Manager
805-549-3132, greg.bishop@waterboards.ca.gov

ACTION: Information / Discussion

KEY INFORMATION

Key Function: Accomplish remediation of chemical releases polluting and threatening water resources.

Key Roles: Require site investigation and remediation associated with chemical releases. Provide technical review and quality assurance to ensure that proposed plans for investigation and remediation will succeed.

Cases in Region 3: 115 cases were managed by Site Cleanup Program staff during the 2018-19 fiscal year.

Program Staff: 6 Engineering Geologists and 2 Water Resource Control Engineers
2 Senior Engineering Geologist supervisors

PROGRAM OVERVIEW

The Site Cleanup Program (SCP) is responsible for regulating and overseeing the investigation and cleanup of sites where recent or historical releases of pollutants to the environment (including soil, groundwater, surface water, soil gas, indoor air, and sediment) have occurred. Sites in the SCP are varied and include dry cleaners, industrial manufacturing and maintenance sites, auto repair and painting facilities, waste storage areas, printing shops, machine shops, oil fields, bulk transfer facilities, refineries, pipeline facilities, rail yards, equipment supply facilities, metal plating facilities, pesticide and fertilizer facilities, ordnance manufacturing facilities, and many others. Pollutants encountered at the sites are diverse and commonly include solvents (e.g., trichloroethylene (TCE) and perchloroethylene (PCE)), petroleum hydrocarbons (e.g., gasoline, diesel, crude oil), pesticides, and heavy metals. Most of the SCP sites are focused on addressing groundwater contamination issues that often take years or decades to cleanup.

Regulatory Authority

The State Water Resources Control Board (State Water Board) and regional boards have legal authority to require site investigation and cleanup actions via [Division 7 of the California Water Code \(CWC\)](#), [State Board plans and policies](#), and [Regional Water Quality Control Plans \(Basin Plans\)](#). The regional boards provide regulatory and technical oversight of dischargers' (i.e., responsible parties' (RPs')) activities pertaining to the investigation and cleanup of pollution at sites to ensure that the dischargers clean up and abate the effects of discharges in a manner that promotes attainment of either background water quality, or the best water quality which is reasonable if background levels of water quality cannot be restored. RPs primarily are any person(s) who caused or permitted a waste discharge, but RPs often include past or current property owners that were not directly involved in the discharge of waste. For most of our active SCP cases, the past and current operators and property owners (including interim owners, lessees, successor corporations, and dissolved corporations) are named RPs.

Elements of the Site Cleanup Process

The seven basic steps of site cleanup are as follows:

1. Identification of known or potential discharges threatening groundwater based on local agency referrals, complaints, review of available water quality data, assessment of other cleanup cases (e.g., underground storage tank [UST] site monitoring data indicating other sources of contamination), etc.
2. Preliminary site assessment to confirm the discharge and identity RPs; to identify affected or threatened waters of the state and their beneficial uses (e.g., polluted drinking water wells); and to develop preliminary information on the nature and extent of the discharge and associated impacts;
3. Implementation of early interim corrective actions to cease the discharge, remove the primary source of pollutant mass (e.g., soil contamination) and mitigate health threats. Interim corrective actions could include soil excavation or other source area remediation activities to remove pollutant mass and prevent ongoing migration which may result in more expensive cleanups later on; the provision of replacement water or treatment for impacted drinking water wells; and the mitigation of chemical vapor intrusion into buildings to protect public health.
4. Comprehensive and often stepwise assessment of soil and groundwater impacts to more definitively determine the source, nature, and extent of the discharge as the basis for the selection, design and implementation of cleanup and abatement actions and ongoing monitoring as may be required. A risk assessment may be conducted to evaluate site specific receptors and exposure pathways and determine cleanup goals.
5. Evaluation of feasible cleanup and abatement actions and the proposal and design of the preferred and effective approach and associated implementation schedule to achieve cleanup (i.e., remedial action plan). In some cases, ongoing monitoring to confirm contaminant containment and attenuation may be determined to be the most appropriate action for low risk sites.

6. Implementation of the selected cleanup and abatement action and monitoring to confirm the short- and long-term effectiveness of the implemented actions.
7. Closure of the SCP case after cleanup goals have been achieved.

Vapor Intrusion

The SCP protects human health from the effects of vapors from volatile chemicals intruding into businesses, residences, and other buildings (i.e., vapor intrusion). Vapor intrusion occurs when vapor-forming chemicals from any subsurface source (e.g., polluted soil and/or groundwater) migrate into an overlying building in a gas or vapor form. Recognition of soil vapor intrusion into buildings and other enclosed spaces occurred in the 1980s as a result radon intrusion concerns and associated studies. Subsequently, there was an increasing awareness that anthropogenic chemicals (e.g., petroleum hydrocarbons and chlorinated solvents) in soil, groundwater, and sewers could also pose threats to indoor air quality via the vapor intrusion pathway. The Water Boards did not begin to evaluate vapor intrusion risks at cleanup sites until 2007, and the science behind the vapor intrusion evaluations is continually evolving. Water Board staff require RPs to follow specific technical guidelines for sampling soil gas and indoor air and the results are compared to conservative screening levels or to site specific modeling results to evaluate the vapor intrusion risks. Where vapor intrusion is identified as a human health threat, Water Board staff require mitigation measures to reduce vapor intrusion exposure and continued monitoring to confirm indoor air quality is protective of human health based on applicable standards.

Screening Levels

The San Francisco Bay Water Board developed Environmental Screening Levels (ESL) to provide conservative site investigation and cleanup screening levels for over 100 chemicals commonly found at sites with contaminated soil and groundwater. The ESLs are not enforceable cleanup levels. The ESLs are intended to help expedite the identification and evaluation of potential environmental concerns at contaminated sites. ESLs address a range of media (soil, groundwater, soil gas, and indoor air) and a range of concerns (e.g., impacts to drinking water, vapor intrusion, and impacts to aquatic life). Site-specific risk assessments are also used to guide this work. For complex risk assessments, SCP staff requests assistance from the Office of Environmental Health Hazard Assessment (OEHHA) through a State Water Board managed contract to review and approve the complex risk assessment.

Prioritization

Since 2008, the SCP has implemented an effective case prioritization strategy on a yearly basis to assist management in 1) distributing work assignments among the SCP staff, 2) establishing milestones and goals for each cleanup site, 3) ensuring we focus our resources on our highest threat to water quality and human health priorities, and 4) tracking our performance in moving our high and medium priority sites to lower priority sites and eventual closure.

Three primary site ranking elements are considered: 1) Risk to Human Health and the Environment, 2) Site and Waste Complexity, and 3) Public Participation. Risk to human health and the environment relates to real or threatened impacts to human health and ecological receptors, including surface water and groundwater beneficial uses (e.g., drinking water) and vapor intrusion concerns. Site and waste complexity relates to site and waste conditions, including (but not limited to) beneficial water uses, geology, hydrogeology, topography, soil type, waste types, plume characteristics, land use, etc. Public Participation considers the number of and degree to which people are impacted, as well as the amount of interest and concern the case presents. Political and social interests are also considered in this ranking element.

An example of a high priority site is one where there are demonstrated vapor intrusion risks or impacts to drinking water supply wells. Typically, high priority sites also have complex geology and either unknown or significant pollutant distribution. Examples of high priority sites are the Buckley Road area TCE case and Dutch Maid Drycleaners, which are described in further detail below. An example of a low risk site is one with a relatively low level of water quality impact and the pollutant distribution is well known and of limited extent. Additionally, low risk sites generally have no significant risk to human health or other environmentally sensitive receptors (e.g., endangered species). Examples of low priority cases include a majority of the historical crude oil pipeline spills along highways and cleanup cases that are in the last phase of cleanup and are in the post remediation monitoring phase. We currently have 22 high priority cases and 36 medium priority cases with the remaining cases being low or very low priority. SCP staff spend 90 percent of their time on the high and medium priority case. Every year we usually have several new cleanup cases, but that is generally balanced by closing cases that eventually achieve cleanup goals.

Challenges

The investigation and cleanup of pollutants in the subsurface, particularly groundwater, is often very challenging due to 1) the significant timeframes (year or decades) and costs (tens of thousands or even millions of dollars) typically required to fully implement assessment and cleanup actions, 2) identifying viable RPs, 3) sometimes having to manage multiple RPs and/or sources of pollutants for adjacent sites or comingled site plumes, 4) complexity associated with the fate and transport of pollutants once they are below ground, 5) obtaining offsite access from adjacent property owners to implement investigation and cleanup actions, 6) public opposition to cleanup strategies, and 7) site constraints (e.g., contamination under buildings or roads), treatment technology limitations, or geologic/hydrogeologic constraints inhibiting the ability to fully assess or cleanup pollutants to acceptable levels.

Public Participation

Staff provide opportunities for public participation in the regulatory and technical oversight process so that the public is informed and has the opportunity to comment. The level of public participation is tailored to site-specific conditions, primarily depending on site complexity, risk and public interest. The level of public participation effort at a particular site is based on the potential threat to human health, water quality conditions, surrounding land use and environment; the degree of public concern or interest in site cleanup; and any environmental justice factors associated with the site. Examples of public participation efforts include:

- Sending factsheets to businesses and residences near SCP sites when a remedial strategy, a cleanup and abatement order, or a closure is going to be implemented, and posting them on our website,
- Deed restrictions for properties where pollutants remain in groundwater at concentrations exceeding water quality objectives when it is not technically or economically feasible to achieve water quality objectives and institutional controls are needed and in place to protect human health and the environment,
- Public meetings for various stages of high priority cleanup sites,
- Handing out flyers door-to-door for businesses and residences where there are concerns about domestic well impacts above safe drinking water standards and vapor intrusion risk,
- Notification pursuant to Proposition 65 for situations where there is a substantial risk of injury such as vapor intrusion risks that are unsafe for the public without immediate mitigation or exceedances of the drinking water standard in domestic wells due to a release from a SCP site,
- Sending information on grant funding availability to RPs that may not have sufficient funding to implement site assessment and cleanup actions for their sites.
- Explaining technical reports to lay-people.

Related Water Board Programs

Underground Storage Tank (UST) and Department of Defense (DoD) programs both perform regulatory investigation and remediation functions similar to the SCP. The UST program handles releases of petroleum and other hazardous substances from underground storage tank sites, such as and primarily associated with gas stations. The DoD program handles investigation and remediation projects at federally-owned properties, such as military bases. The UST and DoD programs are separated from the SCP due to its distinct funding sources (i.e., RPs pay for SCP staff time) and differing administrative requirements.

SUMMARY OF CENTRAL COAST WATER BOARD SCP CASES

There were 242 active SCP cases within the geographic area covered by the Central Coast Water Board during the 2018-19 fiscal year. Central Coast Water Board staff are

currently the lead oversight agency of 115 of these cases. The remaining 127 cleanup cases are managed by local agencies such as local county environmental health departments because they pose a lower threat to water quality; these are predominately cases where soil is contaminated and not groundwater. Central Coast Water Board staff frequently consult with local agencies regarding milestone decisions on these projects, such as whether to require groundwater remediation or to close a case. Sometimes these local agency cases are transferred to the Water Board because it is discovered through additional investigation that groundwater impacts are significant or the local agency doesn't have the ability to take enforcement on a recalcitrant RP.

A map showing all of the cleanup cases is available on GeoTracker. This staff report focuses on the 115 cases that the SCP oversees. The SCP cases are categorized as follows:

- 41 industrial manufacturing facilities, including metal plating facilities, auto repair and paint shops, machine shops, electronic device manufacturing, print shops, illicit drug labs, hazardous waste storage areas. Typical chemical releases associated with these facilities are trichloroethylene (TCE), perchloroethylene (PCE), 1,4-dioxane, petroleum hydrocarbons, metals.
- 25 former dry cleaning facilities. Predominantly PCE and stoddard solvent releases.
- 20 oilfield, refinery, bulk storage, gas plants, railroads, and marine terminal facilities. Predominantly petroleum hydrocarbon and heavy metal releases.
- 18 historic or active oil pipeline releases. Predominantly petroleum hydrocarbon and heavy metal releases.
- 7 pesticide and fertilizer facilities. Predominantly nitrate, ammonia, toxaphene, 1,2,3-trichloropropane (1,2,3-TCP), 1,2-dichloropropane, and endrin releases.
- 3 ordnance and 1 flare manufacturing facility. Predominantly perchlorate and TCE releases.

From a geographical perspective, the SCP cases are located across the different counties within our region. However, it is notable that a majority of the SCP dry cleaner, industrial manufacturing, and oilfield cases are located in Santa Barbara county, a majority of the oil pipeline cases are located in San Luis Obispo county, and the ordnance manufacturing facilities are located in San Benito county.

Of the 115 SCP cases, forty-two are currently in the investigation phase with 73 cases in the remediation and post-remediation phases. Over the past five years, SCP staff have successfully closed 40 SCP cases. A majority of these cases required over 20 years to achieve cleanup goals and closure because of some of the challenges identified above.

SCP work is accomplished by six Engineering Geologists (Dan Niles, Daniel Pelikan, Dean Thomas, Sarah Treadwell, Amber Sellinger, and Wei Liu), two Water Resources Control Engineers (Karyn Steckling and Kelsey Gerhart), and one student intern (Colin Barger). Each staff work on a variety of cases for a given geographical area and the

workload is distributed such that each staff have both high priority and low priority cases. The program itself is managed by two Senior Engineering Geologists (Greg Bishop and Sheila Soderberg).

Sampling of SCP Cases

A brief summary of a few of the highest priority cases managed by Central Coast Water Board staff during the 2018-19 fiscal year include:

Buckley Road Area TCE Plume, San Luis Obispo, San Luis Obispo County:

Trichloroethylene (TCE) is polluting groundwater in a mixed residential and industrial area along Buckley Road near the San Luis Obispo County Airport where residents and industrial tenants operate individual groundwater production wells for drinking water and other purposes. In 2018, staff facilitated a fourth phase of the investigation that identified the source of TCE via a state grant. A draft Cleanup and Abatement Order was distributed for public comment in May 2019 that identifies responsible parties and directs them to provide replacement water, conduct an additional investigation, perform remediation, and implement other related tasks.

Dutch Maid Cleaners, Santa Barbara, Santa Barbara County: Tetrachloroethylene (PCE) was released from dry cleaning operations into a mixed commercial and residential area of Santa Barbara. Some remediation efforts have occurred, and additional cleanup is being required under SCP oversight. Site investigation activities recently determined that PCE and related chemical vapors associated with soil and groundwater contamination are entering some residences. The Central Coast Water Board is requiring that vapor intrusion mitigation measures be implemented to protect building occupants.

TSP Filters, Goleta, Santa Barbara County: A 1,4-dioxane release is affecting soil and groundwater in Goleta, with a municipal groundwater production well threatened downgradient. The Central Coast Water Board has approved a remedial action plan to implement groundwater extraction (pump-and-treat) at the site with shallow vadose zone groundwater reinjection to accomplish soil flushing and removal of the 1,4-dioxane from both soil and groundwater. The system is nearly operational with final permitting and approvals expected soon.

Guadalupe Restoration Project, Guadalupe, San Luis Obispo County: The former Guadalupe Oil Field was operated by Unocal and production began in the 1950s continuing through the early 1990s. As part of operations, mid-range petroleum used to thin heavy crude oil for pumping conveyance purposes, known as diluent or KD (kerosene/diesel hydrocarbon range distillates), was released to the shallow underlying aquifer via spills and pipeline leaks. Chevron assumed responsibility for the remediation following a merger with Unocal in 2005. The Central Coast Water Board issued a Cleanup and Abatement Order in 1998, and remediation projects that have been completed to date include targeted excavations to remove impacted soil, wetland and dune restoration, and recovery of over one-million gallons of light non-aqueous phase liquid (LNAPL) from groundwater. Ongoing and future programs include enhanced

LNAPL recovery and a potential engineered on-site soil management unit to safely store and treat impacted soil onsite instead of trucking it to a nearby landfill for disposal.

Santa Margarita Ranch, Santa Margarita, San Luis Obispo County: Several release points have been identified along petroleum pipelines that traverse the Santa Margarita Ranch site for 1.8 miles, crossing both Santa Margarita and Yerba Buena Creeks. Several iterations of subsurface investigations, including the installation of over 50 groundwater monitoring wells, have been performed along the petroleum pipeline alignments. Separate-phase hydrocarbon recovery efforts and groundwater and surface water monitoring events are performed on a weekly and annual basis, respectively. The Central Coast Water Board recently received and is reviewing a Corrective Action Plan submitted on behalf of the discharger for the remediation and excavation of two petroleum-impacted areas identified at the site.

Tecknit and Tube Holding Company, Inc, Santa Barbara, Santa Barbara County: Trichloroethylene (TCE) was released from historical industrial manufacturing operations into a mixed commercial and residential area of Santa Barbara. Site investigation activities have revealed that TCE impacts to groundwater extend several blocks downgradient from the original source area. On-site contaminant source removal has been achieved using in-situ chemical oxidation (ISCO), and further downgradient remediation is being implemented using enhanced in-situ bioremediation (EISB) technology. Indoor vapor intrusion risks were also identified over the last few years and mitigation and sampling is currently in place to protect residents.

Scotts Valley Dry Cleaners, Scotts Valley, Santa Cruz County: Tetrachloroethylene (PCE) was released from dry cleaning operations in a commercial area of Scotts Valley. Remediation efforts are ongoing with the operation of a soil vapor extraction/air sparge system to remove PCE vapors from the subsurface, and a groundwater pump and treat system was previously operated at the site. Since 2016, the responsible party has been attempting to collect groundwater samples from existing deep monitoring wells that were installed to evaluate TCE pollution associated with the nearby Watkins-Johnson Superfund site. The EPA is no longer requiring investigation of the TCE in groundwater associated with the Superfund site because groundwater cleanup has been achieved. Staff is currently facilitating the transfer of selected Superfund monitoring well ownership to the RPs for the Scotts Valley Dry Cleaners to allow for the continued and cost effective assessment of the PCE release from the dry cleaner site that extends beneath the Superfund site (i.e., so the RP does not have to incur costly replacement of the existing Superfund site monitoring wells). Further investigation of the extent of PCE in soil gas and groundwater at depth are planned to help finalize site characterization in preparation for the final cleanup plan.

Olin Corporation, Morgan Hill, Santa Clara County: This flare manufacturing facility discharged perchlorate into soil and groundwater in Morgan Hill, resulting in a perchlorate plume that, at its largest, extended nearly 10 miles downgradient of the site and depths over 500 feet below ground surface. Onsite soil remediation, groundwater extraction and treatment, and attenuation through natural

physical processes have resulted in a significant attenuation of the perchlorate plume, and reduction in risk to residences who use water from domestic wells in the area. This is demonstrated by a reduction in the number of domestic wells exceeding the drinking water standard (or maximum contaminant level [MCL]) for perchlorate and the need for replacement water. At the onset of the Central Coast Water Board's Replacement Water Program in 2004, there were 188 wells exceeding the MCL for perchlorate; today there are seven. Cleanup requirements in three aquifer zones has been achieved, allowing Olin Corporation to shut off some high-volume extraction wells. Olin plans to initiate pumping at three new lower-volume extraction wells to more efficiently target a remaining hot spot in the perchlorate plume.

Former Whittaker Ordnance Facility, Hollister, San Benito County:

Perchlorate, chlorinated solvents (primarily TCE), and hexavalent chromium were released to soil and groundwater from the ordnance product manufacturing and testing facility. The facility was operated by various companies from the 1950s until 2001, when the Pacific Scientific Energetic Materials Company (PSEMC) purchased the facility. PSEMC maintains ownership but has not conducted any operations at the facility since approximately 2010. The 94-acre facility is situated in a geologically complex area between the San Andreas and Calaveras fault zones near the City of Hollister. Whittaker has completed many phases of soil and groundwater investigations and is conducting ongoing remediation throughout the facility via the operation of two soil vapor extraction systems, an in situ groundwater bioremediation, and a groundwater extraction and treatment system to hydraulically control offsite migration of perchlorate, VOCs, hexavalent chromium, and naturally occurring selenium. The extracted and treated groundwater is discharged to the San Benito River channel in accordance with an individual National Pollutant Discharge Elimination System discharge permit. Whittaker has also provided replacement water to nearby properties where water has been impacted by offsite migration of TCE. Currently, Whittaker maintains a treatment system at the nearby Terra Linda Water Association well used by the community for landscape irrigation. Whittaker also facilitated connecting the adjoining Perry Farms property to the City of Hollister public water system.

FUNDING MECHANISMS FOR CLEANUP SITES

There are three general implementation and funding mechanisms for sites in the SCP for the Central Coast region. State Water Board staff manage these funds and handle all invoicing and collection of payment and distribution of grant funds. The three general funding mechanisms are:

1. Voluntary cleanups executed and funded by the RP,
2. Obligatory cleanups executed and funded by the RP as required by a "Cleanup and Abatement Order (CAO)", and
3. Site Cleanup Subaccount Program (SCAP).

Voluntary Cleanup and Funding

The majority of SCP sites are voluntary cleanups where the RP voluntarily performs the investigation and cleanup by entering into the State Water Board cost recovery program, which compensates the State for staff time performing technical and regulatory oversight. Via the authority provided in the California Water Code (CWC), the State Water Board sets up the cost recovery program so that reasonable expenses incurred by the State Water Board and regional boards in overseeing water quality matters can be recovered from the RP. For a site to be placed in the cost recovery program, an RP must first be identified. The RP agrees to and signs an acknowledgement form stating their intent to pay oversight bills; in return, they receive technical oversight from Central Coast Water Board staff to implement site assessment and clean up actions. An account is set up to record and track water board staff charges, cost recovery invoices are issued by State Water Board quarterly to the RPs, and the RP remits payments to the State Water Board's Cleanup and Abatement Account (CAA).

Obligatory Cleanup and Funding Via the Issuance of a “Cleanup and Abatement Order”

A cleanup and abatement action is sometimes taken by the Central Coast Water Board to bind the RP to clean up the release. CWC Section 13304 authorizes the Central Coast Water Board to issue a “cleanup and abatement order” (CAO) requiring a discharger to cleanup and abate waste, “where the discharger has caused or permitted waste to be discharged or deposited where it is or probably will be discharged into waters of the State and creates or threatens to create a condition of pollution or nuisance.” In cases where a CAO is issued, the Order provides the basis for reimbursement, often via cost recovery as discussed above, of State Water Board and Central Coast Water Board oversight costs.

Site Cleanup Subaccount Program

The Site Cleanup Subaccount Program (SCAP) is a non-competitive funding program established by Senate Bill (SB) 445 (Hill, 2014), allowing the State Water Board to issue grants for projects that remediate the harm or threat of harm to human health, safety, or the environment caused by existing or threatened surface water or groundwater pollution. In the past, SCP was limited working on cases that had an identified and financially viable RP. SCAP now provides a separate staff funding source that does not require tracking of staff hours and billing to RPs through the cost recovery program and it also provides grant funding to do the actual investigative and cleanup work. Currently we have funding for 1.5 staff to bill their hours spent on non-cost recovery sites to the SCAP fund. Therefore, the SCAP program provides a unique opportunity for SCP staff to now work on cases that do not have an identified RP (e.g., regional pollution that does not have an identified source of pollution), research GAMA GeoTracker for exceedances in supply wells to help identify and track new SCP sites, and to provide assistance to a financially viable RP (e.g., bankrupt or financially disadvantaged RP or viable RPs) that need additional funding to finalize cleanup actions. Most historical

funding sources (e.g., Proposition 1) require non-profits or local agencies to apply for grant funds and these non-profits and local agencies must then execute the work. Most non-profits and local agencies are not willing to take on the risk of cleaning up a contaminated property. SCAP allows private entities or the Regional Water Boards to apply for grants for eligible projects. Eligible projects include those that:

- Remediate the harm or threat of harm to human health, safety, and the environment from surface water or groundwater contamination,
- Human-made contaminants,
- A regulatory agency has issued a directive (unless this is infeasible),
- The responsible party lacks financial resources, and
- Projects may include site characterization, source identification, or implementation of cleanup.

The Central Coast region SCP currently has four cases funded by the SCAP program and SCP staff is currently assisting several RPs in going through the process of obtaining grant funding for their cleanup sites. Currently, the SCAP program has an annual appropriation of \$19.75 million through 2025. Staff anticipates that in the next couple of years we will likely open many more cases as new chemicals are detected (e.g., perfluoroalkyl substances – see Item 9 of this Board agenda) and as staff furthers their evaluation of available information to identify new sources of groundwater contamination.

The SCAP is similar to the UST Cleanup Fund (Fund), which provides a means for petroleum UST owners and operators to meet the federal and state requirements of maintaining financial responsibility to pay for any damages arising from their tank operations. The Fund assists a large number of small businesses and individuals by providing reimbursement for expenses associated with the cleanup of leaking USTs. The Fund also provides money to the Regional Water Boards and local regulatory agencies to abate emergency situations or to cleanup abandoned sites that pose a threat to human health, safety, and the environment, as a result of a UST petroleum release. RPs are not able to receive funding from both the UST Fund and SCAP for the same cleanup.

APPLICABLE REGULATIONS

[CWC Section 13001 Legislative Intent](#) – It is the intent of the Legislature that the State Water Board and each Regional Water Quality Control Board act as the principal state agencies with primary responsibility for the coordination and control of water quality.

[CWC Section 13304 Cleanup and Abatement](#) – It is required that any person who has discharged or discharges waste into waters of the state in violation of any waste discharge requirement or other order or prohibition issued by a Regional Water Board or the State Water Board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a

condition of pollution or nuisance may be required to clean up the discharge and abate the effects thereof, including the provision of replacement water for polluted water supplies.

[CWC Section 13365 Billing, Cost Recovery, Requirements](#) – The adoption of a billing system for the cost recovery of investigation, analysis, planning, implementation, oversight, or other activity performed by State Water Board and regional boards related to the removal or remedial or corrective action of a release of a hazardous substance.

[CWC Section 13267 Investigations and Inspections](#) – In conducting an investigation, the Regional Water Board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste that could affect the quality of waters within its region to furnish, under penalty of perjury, technical or monitoring program reports which the Regional Water Board requires.

MAIN POLICIES AND PROCEDURES USED BY SCP

[Resolution 92-49](#) – Adopted by the State Water Board on June 18, 1992, and later amended on April 21, 1994, and October 2, 1996, this resolution describes the policies and procedures for investigation and cleanup and abatement of discharges explained in [CWC Section 13304](#).

[Resolution 68-16](#) (also known as the Antidegradation Policy) – Protects water bodies where existing quality is higher than necessary for the protection of beneficial uses. Under the Antidegradation Policy, any actions that can adversely affect water quality in all surface and ground waters must (1) be consistent with maximum benefit to the people of the State, (2) not unreasonably affect present and anticipated beneficial use of the water, and (3) not result in water quality less than that prescribed in water quality plans and policies.

[Regional Board Basin Plans](#) – Designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, Basin Plans designate beneficial uses for surface and groundwaters, set narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's Antidegradation Policy, and describe implementation programs to protect all waters in the Region. In addition, Basin Plans incorporate by reference all applicable State Water Board and regional board plans and policies and other pertinent water quality policies and regulations.

GEOTRACKER DATABASE

The GeoTracker database is the Water Boards' map based electronic information system for sites that the Central Coast Water Board regulates through the SCP as well as the UST, DoD, Irrigated Lands, Oil and Gas production, and Land Disposal programs. The Waste Discharge Requirements and Cannabis programs are also

beginning to transition into GeoTracker as the primary case management tool. GeoTracker houses electronic copies of correspondence and technical documents associated with cases. It also houses technical data, such as sample location and well coordinates, laboratory analytical results, and groundwater elevations. GeoTracker is used as the primary program management and case management tool for SCP staff.

GeoTracker also has a [public interface](#) that allows documents and other information within the system to be obtained by the public online. This feature has significantly reduced the amount of time staff spends responding to public records act requests because it makes SCP site and other site type information available to the public.

CLIMATE CHANGE

SCP staff consider carbon impacts from proposed investigation and remediation projects against the benefits that those proposed projects will provide relative to the carbon impacts. For example, if an excavation project will have a substantial number of trucks transporting soil offsite, the emissions from the trucks would be considered as one of many factors as part of a “cost” benefit analysis before approving the project. Sites that are in areas that are susceptible to the flooding or sea level rise effects of climate change are also being evaluated to determine if changes in investigation or remediation approaches are warranted including whether to speed up the remediation timeline.

HUMAN RIGHT TO WATER

California Water Code section 106.3, subdivision (a) states: It is a policy of the State of California “that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitation purposes.” There are currently two SCP cases where a release has impacted domestic drinking water supply wells and/or municipal supply wells. Both of these cases have existing CAOs that require the RPs to provide replacement water. The SCP has always been inherently aligned with the Water Boards Human Right to Water Policy because it is focused on restoring the beneficial uses of groundwater with an emphasis on drinking water and the protection of public health.

DISADVANTAGED COMMUNITIES

SCP cases are data-driven with priority given to projects that have the highest risk to human health and threat to groundwater quality. If there are impacts to drinking water wells or unsafe vapor intrusion conditions from a SCP site, SCP staff will be assigned to and priority is given to these projects regardless of whether it is a disadvantaged community or not. Currently, the Central Coast Water Board does not have drinking water well or unacceptable vapor intrusion impacts in a disadvantaged community where we do not have an identified and viable RP.

CONCLUSION

The ultimate goal of the SCP is to protect human health and the environment by reducing risk through the assessment and cleanup of cases in a collaborative, financially responsible, and expedited manner. Water Board SCP staff will continue to prioritize work on the highest priority sites with the objective of achieving cleanup goals and closure, while also identifying and evaluating new sites. The relatively new SCAP funding program is a game changer for the SCP with respect to being able to identify new sites and facilitate work on previously languishing sites without a viable RP. Our staff will continue to develop creative strategies and collaborative relationships with different partners, stay up to date with new investigative and cleanup technologies to move cases toward closure in the most expedited and effective manner possible. The SCP goal for the 2019-2020 fiscal year is to move six sites from the investigative phase to the remediation phase and to close five sites.