

Substitute Environmental Document

Project Title

Low-Threat Underground Storage Tank Case Closure Policy

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1. Introduction

This **draft** substitute environmental document (**draft** SED) has been prepared by the State Water Resources Control Board (State Water Board) to evaluate the potential environmental effects of the adoption of a proposed statewide Low-Threat Underground Storage Tank Case Closure Policy (Policy).

The State Water Board is authorized to administer the petroleum Underground Storage Tank (UST) Cleanup Program, which was enacted by the Legislature in 1984 to protect human health, safety, and the environment. The State Water Board also implements the petroleum UST Cleanup Fund which was enacted by the Legislature in 1989 to assist UST owners and operators in meeting federal financial responsibility requirements and to provide reimbursement to those owners and operators for the high cost of cleaning up unauthorized releases of petroleum caused by leaking USTs.

Regulations and policies have created the framework for the investigation and cleanup of petroleum-impacted UST sites, but do not address closure criteria for sites that pose a low threat to human health, safety, and the environment. Therefore, this proposed Policy has been developed to establish closure criteria for certain types of sites with unauthorized releases of petroleum from USTs that present a low threat to human health, safety, and the environment. In the absence of unique, site-specific conditions, cases that meet the criteria in the proposed Policy pose a low threat to human health, safety, or the environment and are appropriate for case closure.

Cleanup of Petroleum-Impacted UST Sites in California

The construction and operation of USTs are permitted by local agencies pursuant to requirements in the Health and Safety Code and regulations adopted by the State Water Board in the California Code of Regulations, Title 23, Division 3, Chapter 16. Newly constructed USTs have continuously monitored secondary containment, but older USTs were commonly constructed of single-walled steel. These USTs were prone to corrosion and leaking into the soil and groundwater.

Several statutory and regulatory provisions provide the State Water Board, Regional Water Quality Control Boards (Regional Water Boards), and local agencies with broad authority to require responsible parties to clean up a release from a petroleum UST (e.g., Health & Saf. Code, §25296.10; Wat. Code, §13304, subd. (a)). The State Water Board has promulgated regulations specifying corrective action requirements for petroleum-impacted UST cases (Cal. Code of Regs., tit. 23, §§2720-2728). The regulations define corrective action as “any activity necessary to investigate and analyze the effects of an unauthorized release, propose a cost-effective plan to adequately protect human health, safety and the environment and to restore or protect current and potential beneficial uses of water, and implement and evaluate the

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effectiveness of the activity(ies).” (Cal. Code Regs., tit. 23, §2720). Corrective action consists of one or more of the following phases: (1) preliminary site investigation, (2) soil and water investigation, (3) corrective action plan implementation, and (4) verification monitoring (Cal. Code Regs, tit. 23, §2722, subd. (a)).

Unauthorized releases of petroleum from USTs are regulated by local agencies, Regional Water Boards and the State Water Board. Cleanups must comply with applicable basin requirements and policies for water quality control. [State Water Board Resolution 92-49](#), *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304* is a state policy for water quality control and applies to petroleum-impacted UST cases. Resolution 92-49 directs that water affected by an unauthorized release attain either background water quality or the best water quality that is reasonable if background water quality cannot be restored. Any alternative level of water quality less stringent than background must be consistent with the maximum benefit to the people of the state, not unreasonably affect current and anticipated beneficial use of affected water, and not result in water quality less than that prescribed in the water quality control plan for the basin within which the site is located. Resolution No. 92-49 does not require that the requisite level of water quality be met at the time of case closure; it specifies compliance with cleanup goals and objectives within a reasonable time frame.

There are nine Regional Water Boards and over 50 local agencies that oversee UST cleanup cases across the State. This can lead to inconsistencies in the interpretation of cleanup requirements and the cost and complexity of cleanups at similar sites in different jurisdictions.

Application of CEQA

When proposing to undertake or approve a discretionary project, agencies must comply with the procedural and substantive requirements of the California Environmental Quality Act (CEQA)¹. The State CEQA Guidelines² establish procedures to be followed by state and local public agencies in analyzing and disclosing the environmental consequences of activities that an agency proposes to carry out or approve. CEQA applies to discretionary projects that may cause a direct or indirect physical change in the environment. As described in the CEQA Guidelines (§ 15002, subd. (a)), the basic purposes of CEQA are to:

- 1) Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities.
- 2) Identify ways that environmental damage can be avoided or significantly reduced.
- 3) Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- 4) Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Requirements for Certified Programs

State regulatory programs that meet certain environmental standards and are certified by the Secretary of the California Resources Agency are exempt from CEQA requirements for the preparation of environmental impact reports (EIR), negative declarations, and initial studies (Pub. Resources Code, § 21080.5). The CEQA Guidelines (§ 15251) contain a list of certified

¹ California Public Resources Code, section 21000 *et seq.*

² California Code of Regulations, title 14, section 15000 *et seq.* (Unless otherwise noted, further references to the CEQA Guidelines refer to title 14 of the California Code of Regulations.)

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state regulatory programs. This list includes the Water Quality Control (Basin)/208 Planning Program of the State Water Board and the Regional Water Boards (§ 15251, subd. (g)). Accordingly, the adoption of this Policy, which is a policy for water quality control, is exempt from the CEQA requirement to prepare an EIR.

Agencies qualifying for such exemptions must still comply with CEQA goals and requirements, including the requirement to avoid significant adverse effects on the environment where feasible (§ 15250). Agencies must also evaluate environmental effects, including cumulative effects, consult with other agencies, allow public review, respond to comments on the draft environmental document, adopt CEQA findings, and provide for mitigation monitoring and reporting, as appropriate.

The CEQA Guidelines provide for the use of a “substitute document” by state agencies with certified programs (§ 15252). Accordingly, the State Water Board has prepared this **draft** SED for the adoption of this state policy for water quality control.

The State Water Board solicited comments from interested persons and governmental agencies regarding the scope and content of the environmental information to be included in the draft SED, 1-31-12. On September 21, 2011, the State Water Board submitted a Notice of Availability of Scoping Document and Notice of Public Scoping Meetings. A scoping document, which included an Environmental Checklist based on appendix G of the CEQA Guidelines, was made available to interested parties on the State Water Board’s website. The Notice was circulated to members of the public, government agencies, and other interested persons.

Two scoping meeting were held; one was held in Riverside on September 28, 2011, and the other was held in Oakland on September 29, 2011. The purpose of the meetings was to explain the proposed project and provide related information to public agencies and members of the public and to invite them to submit written comments concerning the range of actions, Policy alternatives, mitigation measures, and potential environmental effects that should be analyzed in the draft SED, 1-31-12. The comment period on the scoping document ended on November 8, 2011. A total of 18 responses were received. Comments were received from ten individuals and corporations, six governmental agencies, and two nongovernmental organization/special-interest groups.

The State Water Board circulated a proposed Policy and supporting draft SED, 1-31-12, for public comment on February 3, 2012. The deadline for the submission of written comments was March 19, 2012.

State Water Board staff has responded to significant written comments and made revisions to the proposed Policy and the draft SED, 1-31-12 as appropriate.

2. Project Description

The purpose of the project is to establish consistent statewide case closure criteria for low-threat petroleum UST sites. The proposed Policy is consistent with existing statutes, regulations, State Water Resources Control Board (State Water Board) policies, and is intended to provide direction to responsible parties, their service providers, and regulatory agencies. The proposed Policy seeks to increase process efficiency of case closure for low-threat petroleum-impacted UST sites. A benefit of improved efficiency is the preservation of limited resources for mitigation of releases posing a greater threat to human and environmental health.

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The State Water Board proposes to adopt a low-threat underground storage tank case closure Policy (Appendix A). The proposed Policy is not intended to prematurely terminate work at sites, but rather to identify sites that pose a low threat, which meet state laws and existing State Water Board policies, and are ready for closure. The proposed Policy contains an exception for cases with site specific conditions that demonstrably increase the threat associated with residual petroleum constituents.

The proposed Policy identifies seven general criteria and three media-specific criteria. Sites must meet both the general criteria and the media-specific criteria to be closed under the proposed Policy. These criteria are listed below:

General Criteria

General criteria that must be satisfied by all candidate sites are listed as follows:

- a. The unauthorized release is located within the service area of a public water system;
- b. The unauthorized release consists only of petroleum;
- c. The unauthorized (“primary”) release from the UST system has been stopped;
- d. Free product has been removed to the maximum extent practicable;
- e. A conceptual site model **that assesses the nature, extent, and mobility of the release** has been developed;
- f. Secondary source **removal** has been **addressed removed to the extent practicable**;
- g. Soil or groundwater has been tested for **methyl tert-butyl ether (MTBE)** and results reported in accordance with Health and Safety Code section 25296.15; and
- h. Nuisance as defined by Water Code section 13050 does not exist at the site.**

Media-Specific Criteria:

- a. Groundwater – The unauthorized releases of petroleum that occurred at many of the UST sites in California have impacted groundwater. The proposed Policy specifies criteria that describe low-threat groundwater impacts. These include five different scenarios with differing characteristics such as plume length, contaminant concentrations, and distance to **supply wells or surface water bodies**. Requirements that apply to a particular site must be satisfied to meet the groundwater criterion.
- b. Vapor Intrusion to Indoor Air – The vapor-intrusion criterion applies to petroleum release sites and impacted or potentially impacted adjacent parcels when existing buildings are occupied or are reasonably expected to be occupied or where buildings for human occupancy are reasonably expected to be constructed in the near future. The vapor-intrusion criterion includes four different scenarios with differing characteristics such as depth below ground surface, contaminant concentrations and characteristics, and oxygen concentrations. Requirements that apply to a particular site must be satisfied to meet the vapor-intrusion criterion.
- c. Direct Contact and Outdoor Air Exposure – The proposed Policy describes conditions where direct contact with petroleum-contaminated soil or inhalation of petroleum volatilized to outdoor air poses an insignificant threat to human health. A table showing acceptable maximum contaminant concentrations in soil and corresponding depths below ground surface is included in the proposed Policy.

Sites in the investigation and remediation phases of work will usually not be able to satisfy all of these criteria. This has the effect of limiting application of the proposed Policy to sites that are in the monitoring phase; essentially decreasing the duration of time spent monitoring a site. This Policy does not authorize releases from USTs.

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Some regulatory agencies may already be implementing practices and procedures that conform to the closure criteria in the proposed Policy. For sites within these jurisdictions, implementation of the proposed Policy will have no effect. At sites regulated by agencies that are not currently implementing all of the criteria in the proposed Policy, implementation of the proposed Policy will cause changes in the timing of case-closure activities. However, these activities would occur at some point in the future when the site is closed under current practices. As a result, the effect of the proposed Policy is to change the timing of when the secondary environmental impacts associated with the closure of the site occur. Implementation of the proposed Policy, once adopted, could indirectly result in the following types of actions to occur sooner:

- Destruction of monitoring wells
- Removal of waste drums and debris

In general, the proposed Policy will operate to end the environmental impacts associated with continued monitoring of site conditions such as waste disposal, greenhouse gas emissions due to traveling to and from the site, and traffic disruptions due to sampling wells located in the street. Adoption and implementation of the proposed Policy could, however, cause regulatory agencies to close cases with more petroleum left in place than with current practices. This would cause petroleum to remain in the subsurface subject to natural attenuation processes for a longer period of time.

3. Environmental Setting

The environmental setting is “the physical environmental conditions in the vicinity of the project, as they exist at the time environmental analysis is commenced, from both a local and regional perspective. (CEQA Guidelines, § 15125, subd. (a).) This project covers open petroleum-impacted UST sites throughout California that potentially meet the criteria in the proposed policy. The approximate number of open petroleum-impacted UST cases within a Regional Water Board boundary is listed in Table 1. Site specific information can be found on the State Water Board’s data management system, GeoTracker.³

Table 1
Approximate Number of Open Petroleum-Impacted UST Cases within a Regional Board Boundary

| <u>REGIONAL WATER BOARD BOUNDARY</u> | <u>OPEN CASES</u> |
|---|-------------------|
| <u>NORTH COAST RWQCB (REGION 1)</u> | <u>602</u> |
| <u>SAN FRANCISCO BAY RWQCB (REGION 2)</u> | <u>1777</u> |
| <u>CENTRAL COAST RWQCB (REGION 3)</u> | <u>569</u> |
| <u>LOS ANGELES RWQCB (REGION 4)</u> | <u>1920</u> |
| <u>CENTRAL VALLEY RWQCB (REGION 5F)</u> | <u>432</u> |
| <u>CENTRAL VALLEY RWQCB (REGION 5R)</u> | <u>119</u> |
| <u>CENTRAL VALLEY RWQCB (REGION 5S)</u> | <u>1038</u> |
| <u>LAHONTAN RWQCB (REGION 6T)</u> | <u>160</u> |
| <u>LAHONTAN RWQCB (REGION 6V)</u> | <u>70</u> |

³ GeoTracker is the State Water Board’s data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks, Department of Defense, Site Cleanup Program) as well as permitted facilities such as operating USTs and land disposal sites. <http://geotracker.waterboards.ca.gov>

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| | |
|---|-------------------|
| <u>COLORADO RIVER BASIN RWQCB (REGION 7)</u> | <u>166</u> |
| <u>SANTA ANA RWQCB (REGION 8)</u> | <u>760</u> |
| <u>SAN DIEGO RWQCB (REGION 9)</u> | <u>760</u> |

This section summarizes general conditions of the regions in the State and petroleum-impacted UST sites, which are appropriately considered part of the environmental setting.

A. California⁴

California contains a wide variety of bioregions, from desert environments below sea level, to coastal areas, to alpine areas of 14,000 feet or more in elevation. The diversity of geography colliding with temperature and moisture leads to a significant diversity of biological resources. California has the highest total number of species and the highest number of endemic species within its borders of any state. California also has the highest number of rare species (species typically listed under the federal Endangered Species Act (ESA) or the California ESA), and about one-third of those species are at risk, meaning these species have the potential for local or global extinction.

California is divided geographically into bioregions, which are classified by relatively large areas of land or water, which contain characteristic, geographically distinct assemblages of natural communities and species. The biodiversity of flora, fauna, and ecosystems that characterize a bioregion tend to be distinct from that of other bioregions. California is divided into 10 bioregions: Modoc, Klamath/North Coast, Sacramento Valley, Bay /Delta, Sierra, San Joaquin Valley, Central Coast, Mojave, South Coast, and Colorado Desert (Figure 1).

Modoc Region

This bioregion is also referred to as the Modoc Plateau and the Southern Cascade regions. The Modoc bioregion extends across California's northeast corner from Oregon to Nevada, and south to the southern border of Lassen County. The physical geography of the region includes flats, basins, valleys, lava flows, and mountains. High desert and forests are the dominant vegetation communities. Several major lakes (Goose, Eagle, and Tule) and Mount Lassen (10,450 feet in elevation) are dominant physical features. The bioregion shares many similarities with the Great Basin region that forms much of its eastern boundary. The area's large lakes provide critical habitat for migratory birds.

Counties within this bioregion include all or portions of Plumas, Siskiyou, Butte, Tehama, Shasta, Lassen, and Modoc, which support relatively sparse population bases including the municipalities of Susanville and Alturas. This bioregion comprises the northern quarter of the Lahontan Hydrologic Region.

⁴ The 10 Bioregion descriptions were adapted from: California Environmental Resources Evaluation System. 1996. CERES Website: < http://ceres.ca.gov/geo_area/statewide_data.html >



Figure 1: California Bioregions

Klamath/North Coast Region

The Klamath/North Coast bioregion extends roughly one-quarter of the way down the 1,100-mile coast and east across the Coastal Ranges and into the Cascades. The region extends from the Oregon border to Point Arena and from the continental shelf to the Central Valley, including the looming Mount Shasta (14,160 feet tall) near the eastern boundary. The region is one of rugged relief, with severely sheared, faulted, and folded mountains forming parallel ridges and river valleys. It also has coastal terraces, lagoons, and populated floodplains, as well as off-shore islands, estuaries, and subtidal deep-water habitats. The California bioregional classification system does not include offshore and tidal areas. The marine portion of this bioregion is within two categories of California's marine and ocean classification system: Southern Oregonian Province and Central Ocean. Numerous rivers in this region offer spawning grounds for anadromous fish (e.g., salmon), including the Eel, Trinity, Klamath, Russian, Smith, Salmon, Scott, Mad, and Mattole Rivers. Large lakes include Clear Lake, Whiskeytown Lake, Clair Engle Lake, and the western part of Shasta Lake.

The region includes all or portions of 10 counties: Del Norte, most of Siskiyou, Humboldt, Trinity, Mendocino, Lake, and the northwestern portions of Shasta, Tehama, Colusa, and Glenn. The region's rugged and remote nature supports low population numbers. The largest cities in the region are Redding at the northern end of the Central Valley and Eureka in Arcata Bay. This bioregion encompasses all of the North Coast Hydrologic Region.

Sacramento Valley Bioregion

This bioregion makes up the northern portion of California's Great Valley, extending south roughly from Redding in the north to the northern edge of the Sacramento–San Joaquin River Delta (Delta) at the confluence of the Sacramento and American Rivers. The eastern boundary spans the northern third of the Sierra Nevada foothills. The landscape is relatively flat, consisting of basins, plains, terraces, alluvial fans, and scattered hills or buttes.

Counties incorporated in this populated bioregion are Sutter, most of Sacramento, and Yolo and portions of Butte, Colusa, Glenn, Placer, Shasta, Tehama, and Yuba. Sacramento is the bioregion's largest city with other large cities including Redding, Chico, Davis, West Sacramento, and Roseville, making it the fourth most populous of the 10 bioregions. This bioregion covers a fraction of the Central Valley Hydrologic Region.

Bay/Delta Bioregion

The Bay/Delta bioregion extends from the Pacific Ocean to the Sacramento Valley and San Joaquin Valley bioregions to the northeast and southeast, and a short stretch of the eastern boundary joins the Sierra bioregion at Amador and Calaveras Counties. The bioregion is bounded by the Klamath/North Coast bioregion on the north and the Central Coast bioregion to the south. The marine and ocean areas are categorized as the Oceanic bioregion and the northern portion of the Central Ocean bioregion. These bioregions include two-thirds of California's coast, extending down to Point Conception north of Santa Barbara. The Bay/Delta bioregion is one of the most populous, encompassing the San Francisco Bay Area and the Delta.

The bioregion fans out from San Francisco Bay in a jagged semi-circle that takes in all or part of 12 counties: Marin, Contra Costa, Santa Clara, Alameda, Solano, San Mateo, San Francisco, Sonoma, Napa, San Joaquin, and parts of Sacramento and Yolo. Major cities include San Francisco, Santa Rosa, Oakland, Berkeley, Vallejo, Concord, and San Jose. Though of moderate size, the Bay/Delta bioregion is the second most populous bioregion. This bioregion contains portions of the San Francisco Bay and Central Valley Hydrologic Regions.

Sierra Bioregion

The Sierra bioregion is named for the Sierra Nevada mountain range that is approximately 380 miles long and extends from the Feather River in the north to Tejon Pass in the Tehachapi Mountains to the south. The bioregion extends along California's eastern boundary and is largely contiguous with Nevada. It is bounded on the west by the Sacramento Valley and San Joaquin bioregions. Included in the region are the headwaters of 24 river basins extending to the foothills on the west side and the base of the Sierra Nevada escarpment on the east side. These watersheds generate much of California's water supply provided by runoff from the Sierra snowpack.

Eighteen counties, or their eastern portions, make up the Sierra bioregion: Alpine, Amador, Butte, Calaveras, El Dorado, Fresno, Inyo, Kern, Madera, Mariposa, Mono, Nevada, Placer, Plumas, Sierra, Tulare, Tuolumne, and Yuba. The larger cities include Truckee, Placerville, Quincy, Auburn, South Lake Tahoe, and Bishop. This bioregion encompasses portions of Lahontan, Central Valley, and Mojave Hydrologic Regions.

San Joaquin Valley Bioregion

The San Joaquin Valley bioregion is bordered by the Coast Ranges on the west and the southern two-thirds of the Sierra bioregion on the east. This bioregion is in the heart of California and is the state's top agricultural region, producing fruits and vegetables in its fertile soil.

Eight counties are found within the bioregion: Kings, most of Fresno, Kern, Merced, and Stanislaus and portions of Madera, San Luis Obispo, and Tulare. This growing bioregion, the third most populous, still contributes to the state's top 10 counties in farm production value. Large communities include Fresno, Merced, Modesto, and Bakersfield.

Central Coast Bioregion

The Central California Coast bioregion includes marine, freshwater, and terrestrial resources. The bioregion extends some 300 miles from just north of the city of Santa Cruz to just south of the city of Santa Barbara, and inland to the floor of the San Joaquin Valley. The edge of the continental shelf forms the western boundary; on the east the region borders the Central Valley bioregion. The marine and ocean areas are categorized as the Central Ocean bioregion and the Southern California Bight. These marine regions extend from Cape Mendocino in the north to Point Conception in the south.

The bioregion encompasses the counties of Santa Cruz, Monterey, San Benito, Santa Barbara, and portions of Los Angeles, San Luis Obispo, Fresno, Merced, Stanislaus, and Ventura. Large cities include Monterey, San Luis Obispo, and Santa Barbara. The bioregion also encompasses all of the Central Coast and Los Angeles Hydrographic Regions.

Mojave Bioregion

The Mojave bioregion is located in southern California, southern Nevada, northeastern Arizona, and southwestern Utah. In California, the bioregion comprises the southeastern portion of the state, roughly east of the Sierra bioregion to the Transverse Ranges in the west, where this region abuts the Colorado Desert near Twenty Nine Palms. The geography is defined by widely separated mountain ranges and broad desert plains, and ranges in elevation from 280 feet below sea level in Death Valley National Park to over 11,000 feet on Telescope Peak. Much of the region is at elevations between 2,000 and 3,000 feet.

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Seven counties make up the Mojave bioregion: nearly all of San Bernardino, most of Inyo, the southeastern tips of Mono and Tulare, the eastern end of Kern, the northeastern desert area of Los Angeles, and a piece of northern-central Riverside County. The largest cities are Palmdale, Victorville, Ridgecrest, and Barstow. The Mojave bioregion is within the southern portion of the Lahontan Hydrographic Region.

Colorado Desert Bioregion

The Colorado Desert bioregion is the western extension of the Sonoran Desert found primarily in Arizona and Mexico. The region occupies the southeastern area of California to the border with Arizona and Mexico. It includes the Imperial Valley and Colorado River and abuts the South Coast bioregion within the Peninsular Ranges. Elevation varies from 230 feet below sea level at the Salton Sea to over 8,000 feet in the Peninsular Ranges, but averages around 1,000 feet. The landform is typified by alluvial fans, bajadas, playas, dunes, desert plains and steep sparsely vegetated mountains. Average precipitation is around 4 inches per year.

This sparsely populated bioregion encompasses all of Imperial County, the southeastern portion of Riverside County, the eastern end of San Bernardino County, and the eastern portion of San Diego County. Its most prominent cities are Palm Springs, Rancho Mirage, and El Centro. This bioregion is completely within the Colorado River Hydrographic Region.

South Coast Bioregion

This bioregion encompasses terrestrial and marine resources from Point Conception on the north to the border with Mexico. It extends from the outer edge of the continental shelf to the base of the Transverse and Peninsular Ranges. This bioregion is comprised of off-coast islands, narrow mountain ranges, broad fault blocks, alluvial lowlands, and coastal terraces. Elevation ranges from sea level to over 11,400 feet (San Geronio Mountain). The aquatic resources include subtidal and intertidal marine and deep water habitats. The California classification system does not include offshore and tidal areas; however, this region is defined within the California ocean system as the Southern California Bight.

Counties included in this region are Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura. This region is highly populated and continues to grow at a high rate. This bioregion spans San Diego, Santa Ana and Los Angeles Hydrographic Regions.

B. General Hydrology⁵

Most of California is within one hydrological region as defined by the United States Geological Survey (USGS), but that region is further divided into 10 major bioregions with 153 hydrological cataloging units (moderate-sized watersheds)

Since the ultimate determinants of the availability of surface and groundwater resource within the individual Regional Water Boards is the climatic pattern, this section provides a brief overview of the key hydrological elements for California.

⁵ General hydrology descriptions were adapted from: Planert, M. and J.S. Williams. 1995. Groundwater Atlas of the United States: California, Nevada. HA 730-B. United States Geological Survey. USGS webpage: < http://pubs.usgs.gov/ha/ha730/ch_b/index.html >; CalWater. 1999. California Interagency Watershed Map of 1999.

Precipitation

There is relatively abundant precipitation in the state but the majority of the precipitation is concentrated in areas remote from most large urban centers and major agricultural areas. Much of the climatic variation in the state results from the patterns of global weather systems, oceanic influences, and the location and orientation of the mountains. As shown in Figure 2, northern California is much wetter than southern California, with more than 70% of the average annual precipitation and runoff occurring in the northern part of the state.

On average, about 75% of the annual precipitation in the state falls between November and March; with about 50% occurring between December and February. However, amounts of precipitation vary greatly from year to year, which can often make the services of surface-water supplies undependable. The extreme northern part of California has slightly wetter summers than the rest of the state. Fog also occurs frequently on the coast and provides some additional moisture that is used primarily by vegetation.

Runoff

Runoff is the amount of water left from precipitation that can be measured as streamflow after losses to evaporation, transpiration by plants, and the replenishment of storage within the aquifers.) The areal distribution of runoff closely follows the areal distribution of precipitation. Runoff is greatest in the mountains (exceeding 40 inches per year in many areas), where the majority of precipitation falls as snow that melts during the spring and runs off with minimal evapotranspiration. In contrast, the basins in the arid parts of southeastern California have virtually zero runoff because most precipitation due to high rates of evaporation. However, high-intensity storms or rapid snowmelt in the mountains that border the basins may cause flash floods that reach the floors of the basins. Coastal areas have a direct relation between the amount of precipitation and runoff.

Water Surplus and Deficit

The relation between precipitation and evapotranspiration is a major factor in water availability. If annual precipitation exceeds annual potential evapotranspiration, then there is a net surplus of water and streamflow is perennial. Water is available to recharge aquifers only at times when precipitation or snowmelt is greater than actual evapotranspiration. However, annual potential evapotranspiration can exceed annual precipitation, which causes a net deficit of water. A net annual moisture deficit is present almost everywhere in California except the northern California coast (which receives considerable rainfall from winter storms) and the mountainous regions of northern and east-central California.

In most of southern California, nearly all streams that arise in the mountains are ephemeral and lose flow to alluvial aquifers within a short distance of where the streams leave the mountains and emerge onto the valley floors. Before the inception of agriculture, the largest rivers in the vast Central Valley of California overflowed their banks during periods of peak winter flows and formed extensive marshlands. An elaborate flood control system and the lowering of the water table by withdrawals for irrigation now keep these rivers within their banks and have significantly affected the distribution of riparian wetlands.

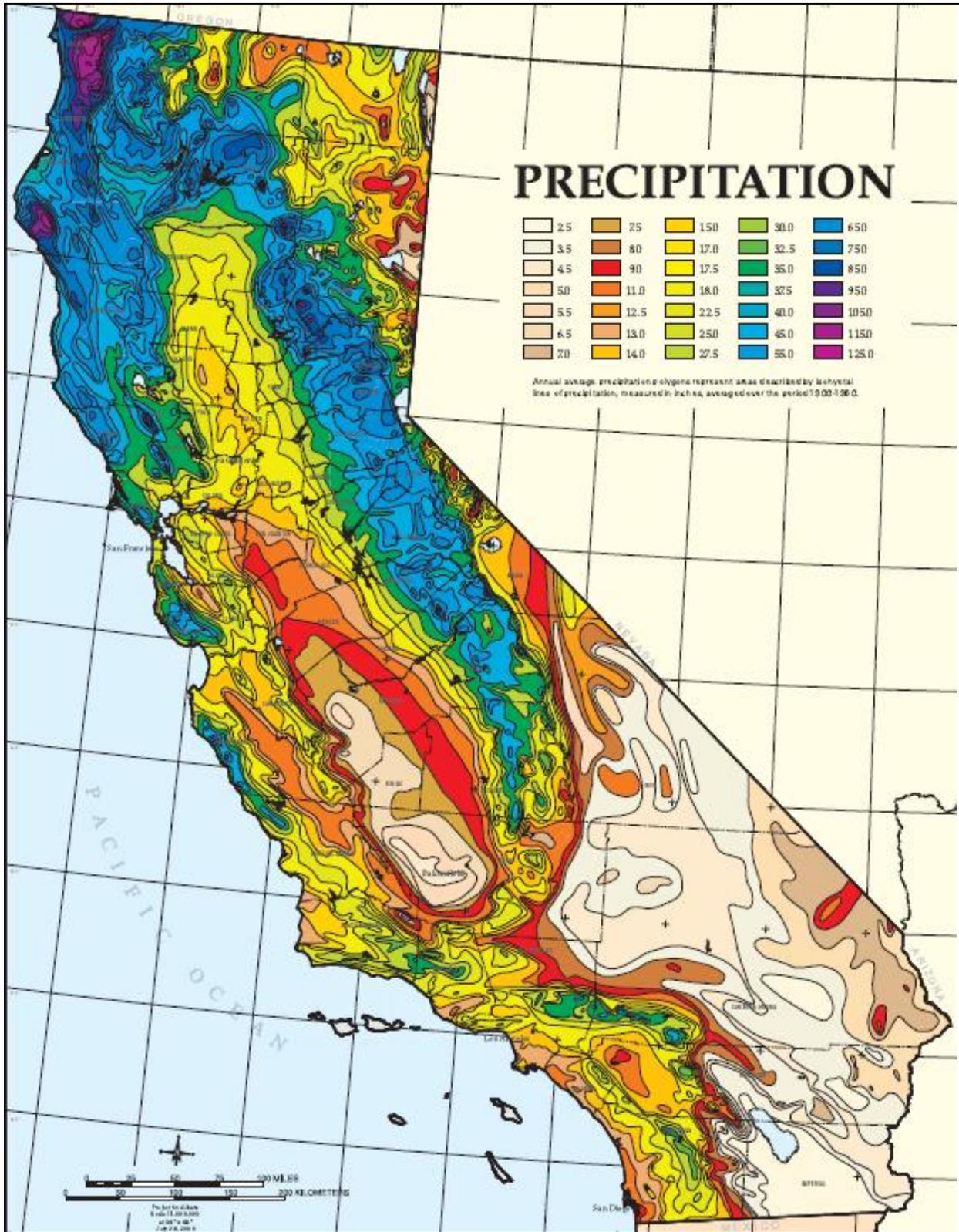


Figure 2: Annual Precipitation Rates in California (CDF, 2011a)

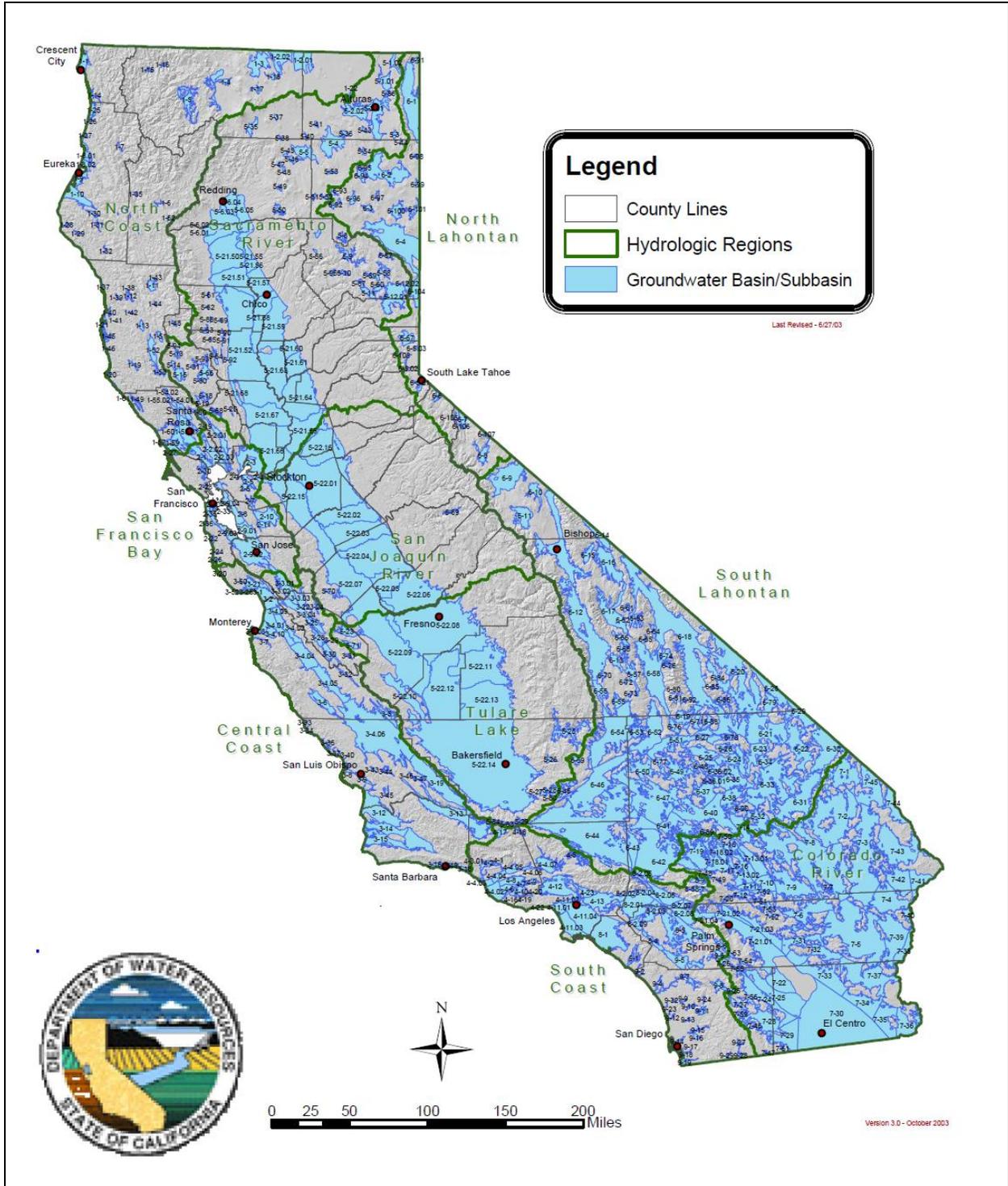


Figure 3: Hydrologic Regions and Groundwater in California (California DWR, 2003)

C. Hydrologic Regions of California⁶

Hydrologists divide California into hydrologic regions (Figure 3). The Regional Water Boards are defined (for the most part⁷) by the boundaries of these hydrologic regions, as described in Water Code §13200. Hydrologic regions are further divided into hydrologic units, hydrologic areas, and hydrologic subareas.

North Coast Hydrologic Region

A majority of the surface water in the North Coast hydrologic region is committed to environmental uses because of the “wild and scenic” designation of most of the region’s rivers. Average annual precipitation in this hydrologic region ranges from 100 inches in the Smith River drainage to 29 inches in the Santa Rosa area.

Waterbodies that provide municipal water include the Smith, Mad, and Russian Rivers. Areas providing agricultural water are more widespread than those for domestic, municipal and industrial use, as they occur in all of the hydrologic units within the region. Many of the smaller communities and rural areas are generally supplied by small local surface water and groundwater systems. Water recreation occurs in all hydrologic units on both fresh and salt water, attracting over ten million people annually. Coastal areas receiving the greatest recreational use are the ocean beaches, the lower reaches of rivers draining to the ocean, and Humboldt and Bodega Bays. The Russian, Eel, Mad, Smith, Trinity, and Navarro Rivers and Redwood Creek provide the most freshwater recreational use.

Groundwater aquifers in the northeastern portion of the North Coast hydrologic region consist primarily of volcanic rock aquifers and some basin-fill aquifers. Coastal basin aquifers are predominantly found in the southern portion of this hydrologic region and along the northern coast. In general, though, a large percentage of this region is underlain by fractured hard rock zones that may contain localized sources of groundwater.

San Francisco Bay Hydrologic Region

Major rivers in the San Francisco Bay hydrologic region include the Napa and Petaluma, which drain to San Francisco Bay. Although this is the smallest hydrologic region in the state, it contains the second largest human population. Coastal basin aquifers are the primary type of aquifer system in this region. These aquifers can be found along the perimeter of San Francisco Bay extending southeast into the Santa Clara Valley, as well as in the Livermore Valley. The northeastern portion of this region, which includes the eastern Sacramento–San Joaquin Delta, is underlain by a portion of the Central Valley aquifer system. The remaining areas in this region are underlain by fractured hard rock zones.

Central Coast Hydrologic Region

Groundwater is the primary source of water in the Central Coast hydrologic region, accounting for approximately 75% of the annual supply. Most of the freshwater in this region is found in coastal basin aquifers, with localized sources of groundwater also occurring in fractured hard rock zones throughout the region.

⁶ Hydrologic region descriptions were adapted from: California Department of Water Resources. 2003 California’s Groundwater, Bulletin 118; Regional Board Water Quality Control Plans (Basin Plans) SWRCB Website: < http://www.waterboards.ca.gov/plans_policies/ >

⁷ The South Coast hydrologic region is divided among three Regional Water Boards (Los Angeles, Santa Ana, and San Diego) because it is the most populous area of the state.

South Coast Hydrologic Region

The South Coast hydrologic region is divided among three Regional Water Boards because it is the most populous area of the state: Los Angeles, Riverside, and San Diego. Groundwater supplies approximately 23% of the region's water in normal years and about 29% in drought years. Like the Central Coast hydrologic region, the majority of aquifers in this region are coastal basin aquifers. In the eastern central portion of the region includes lies a small section of basin and range aquifer and the remainder of the region is comprises fractured hard rock zones.

Central Valley Hydrologic Region

The Central Valley hydrologic region is the largest in California, and encompasses the three subregions described below.

Sacramento River Hydrologic Subregion

The Sacramento River hydrologic subregion includes the entire drainage area of the Sacramento River, the largest river in California, and its tributaries. Groundwater in the northern half of this hydrologic subregion is, for the most part, contained in volcanic rock aquifers and some basin-fill aquifers. The southwestern half of this subregion is underlain by part of the Central Valley aquifer system. The remaining areas that comprise the southeastern half of the subregion and portions of the northern half of the subregion are underlain by fractured hard rock zones. Surface water quality in this hydrologic subregion is generally good. Groundwater quality in the Sacramento River subregion is also generally good, although there are localized problems.

San Joaquin River Hydrologic Subregion

A portion of the Central Valley aquifer system underlies nearly all of the eastern half of the San Joaquin River subregion, while the western half of this subregion consists of fractured hard rock zones. The groundwater quality throughout this hydrologic region is generally good and usable for most urban and agricultural uses, although localized problems occur.

Tulare Lake Hydrologic Subregion

A small area at the southern end of the Tulare Lake subregion is underlain by basin and range aquifers, while a majority of the western half is underlain by a portion of the Central Valley aquifer system. The eastern half, once again, consists of fractured hard rock zones.

Lahontan Hydrologic Region

The Lahontan hydrologic region encompasses two subregions: the North Lahontan and the South Lahontan.

North Lahontan Hydrologic Subregion

The North Lahontan hydrologic subregion consists of the western edge of the Great Basin, and water in the region drains eastward toward Nevada. Groundwater in the northern half of this subregion is primarily contained in basin-fill and volcanic rock aquifers, with some fractured hard rock zones. The southern half of this region is dominated by fractured hard rock zones, but small segments of basin and range aquifers also exist in this part of the subregion.

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In general, the water quality in the North Lahontan hydrologic subregion is good. In basins in the northern portion of the region, groundwater quality is widely variable. The groundwater quality along these basin margins tends to be of higher quality, but the potential for future groundwater pollution exists in urban and suburban areas where single-family septic systems have been installed, especially in hard rock areas. Groundwater quality in the alpine basins ranges from good to excellent.

South Lahontan Hydrologic Subregion

The South Lahontan hydrologic subregion is bounded on the west by the crest of the Sierra Nevada and on the north by the watershed divide between Mono Lake and East Walker River drainages; on the east by Nevada and the south by the crest of the San Gabriel and San Bernardino mountains and the divide between watersheds draining south toward the Colorado River and those draining northward. The subregion includes all of Inyo County and parts of Mono, San Bernardino, Kern, and Los Angeles Counties.

The South Lahontan hydrologic subregion contains numerous basin and range aquifers, separated by fractured hard rock zones. Although the quantity of surface water is limited in the South Lahontan hydrologic subregion, the quality is very good, being greatly influenced by snowmelt from the eastern Sierra Nevada. However at lower elevations, groundwater and surface water quality can be degraded, both naturally from geothermal activity, and as a result of human-induced activities. Drinking water standards are most often exceeded for TDS, fluoride, and boron content. Groundwater near the edges of valleys generally contains lower TDS content than water beneath the central part of the valleys or near dry lakes.

Colorado River Hydrologic Region

The southeast portion of California consists of the Colorado River hydrologic region. It includes a large portion of the Mojave Desert and has variable arid desert terrain that includes many bowl-shaped valleys, broad alluvial fans, sandy washes, and hills and mountains. Aquifers in this region are nearly all of the basin and range type.

D. Baseline

When preparing a Substitute Environmental Document, the State Water Board is required to identify any significant or potentially significant adverse impacts of the proposed project. (Cal. Code Regs., tit. 23, § 3777, subd. (b)(2).) A “significant effect on the environment” means “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, mineral, flora, fauna, ambient noise, and objects of historic or aesthetic significance.” (CEQA Guidelines, §15382.) The baseline by which a lead agency determines whether an impact is significant is generally existing physical environmental conditions as of the time that the notice of preparation is published, or if no notice of preparation is published, at the time the environmental analysis is commenced. (CEQA Guidelines, §§ 15125.(a) and 15126.2(a). *Communities for a Better Environment v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 320, 106 Cal Rptr. 3rd 502; *Fat v. County of Sacramento* (2002) 97 Cal.App.4th 1270, 119 Cal.Rptr.2nd 402.

Since 1984, over 43,500 petroleum-impacted UST cases have been identified. Of these, over 35,000 have been cleaned up and the regulatory case has been closed. This leaves roughly 8,500 open cases still in the clean up process, yet to be closed. This project covers petroleum-impacted UST cases in California that have not been closed. The existing petroleum releases at these sites are considered part of the environmental baseline for purposes of environmental analysis.

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These active cases span a broad range of release volume, volume of contaminated groundwater, threat to surface receptors, and other characteristics. Some cases have petroleum impacts limited to soil only, while others may have plumes of dissolved contaminants in groundwater that extend for hundreds or thousands of feet. Likewise, potential receptors that might be impacted by the release could be located close to the site or miles away. This diversity of release scenarios and distances to potential receptors combine to form a spectrum of risk posed by the petroleum-impacted sites across California. Some sites pose a low threat to receptors and others pose a much higher threat.

The average age of open cases is over 15 years. In addition to any active remediation that may have been undertaken, natural attenuation processes have been weathering and reducing the concentrations of contaminants over the period since the leak was stopped.

4. Environmental Impacts

The State Water Board has prepared this **draft** SED to assess the potential environmental effects of adopting and implementing the proposed Policy for closing low-threat petroleum-impacted UST cases that pose a low threat to human health, safety and the environment. There are potential environmental impacts associated with this Policy, but the impacts are less than significant. The analysis identified no reasonably foreseeable significant adverse environmental impacts.

Environmental impacts as a result from complying with the proposed Policy are no different from the impacts that are reasonably foreseen as a result of the project itself. The analysis identified no reasonably foreseeable significant adverse environmental impacts associated with the methods of compliance.

When evaluating the significance of the environmental effect of a project, an agency must consider both direct physical changes in the environment that may be caused by the project and reasonably foreseeable indirect physical changes that may be caused by the project. (CEQA Guidelines, §15064, subd. (d).) A direct physical change in the environment is a physical change caused by and immediately related to the project. (CEQA Guidelines, § 15064, subd. (d)(1).) If a direct physical change in the environment in turn causes another physical change in the environment, then the other change is an indirect physical change in the environment. (CEQA Guidelines, § 15064, subd. (d)(2).) An indirect physical change is to be considered only if the change is a reasonably foreseeable impact. (CEQA Guidelines, § 15064, subd. (d)(3).) A change that is speculative or unlikely to occur is not reasonably foreseeable. (*Ibid.*)

Checklist

The environmental factors checked below could be potentially affected by this project. See the checklist on the following pages for more details.

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input checked="" type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality |
| <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Noise |

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- | | | |
|--|--|---|
| <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input checked="" type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Mandatory Findings of Significance |

1. AESTHETICS. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|-------------------------------------|
| a) Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a) *Would the project have a substantial adverse effect on a scenic vista?*

No Impact. Petroleum-impacted UST sites are typically not located in scenic vista areas. Those that may be are already on disturbed sites and the proposed Policy will not cause any new adverse impacts.

b) *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

No Impact. See response to item (a) above.

c) *Would the project substantially degrade the existing visual character or quality of the site and its surroundings?*

Less Than Significant Impact. There may be short-term impacts to aesthetics due to the removal of monitoring wells or other types of equipment during site closure. An example would be if a petroleum-impacted UST case was found to be eligible for closure, drilling equipment would be necessary to remove the monitoring well(s). The equipment would create (for a brief period) increased traffic to and from the site, noise from the equipment during removal, as well as an undesirable aesthetic due to the presence of the equipment; however, this activity would have occurred at some point in the future regardless of the proposed Policy and is short-term in duration. No overall negative impact to aesthetics would occur.

At many sites, the aesthetic quality of the site may be improved. The proposed Policy requires that all waste piles, drums, debris and other investigation or remediation derived material must be removed from the site prior to case closure. At many sites, these materials remain for several years and are only removed at the time of closure.

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- d) *Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

No Impact. Permanent sources of external lighting are not a feature of closing a petroleum UST case. Thus, the proposed project would not create a new source of light and glare.

2. **AGRICULTURAL AND FOREST RESOURCES.** In determining whether impacts to agricultural resources are significant environmental impacts, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping & Monitoring Program of the California Resources Agency, to non-agricultural uses? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined by Public Resources Code section 4526)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

- a) *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?*

No Impact. The proposed Policy would have no impact on agricultural or forest resources. Farm tanks are exempt from California Code of Regulations, title 23 requirements and most USTs are located in urban areas. In addition, the proposed Policy is limited to sites that are located in an area served by a public water system, which excludes most agricultural and forest areas due to their rural location. To the extent that sites covered by the proposed Policy are located adjacent to agricultural areas, closure of the site could allow a return to agricultural use if that was a former use of the property.

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b) *Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?*

No Impact. See response to item (a) above.

c) *Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined by Public Resources Code section 4526)?*

No Impact. See response to item (a) above.

d) *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*

No Impact. See response to item (a) above.

e) *Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?*

No Impact. See response to item (a) above.

3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a) *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

No Impact. The closure of petroleum UST cases does not generate criteria pollutants specific to air quality. The proposed Policy would not affect applicable air quality plans.

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At some sites, implementation of the proposed Policy may cause the regulatory agency to close a site earlier in the process than under current practice. Less active remediation at these sites could have a positive impact on air quality because most active remediation techniques (excavation, vapor extraction, groundwater extractions, etc.) are energy intensive and contribute to greenhouse gas emission. Also, the release of petroleum is effectively sequestered in the subsurface as it undergoes biodegradation, whereas it is quickly volatilized or burned when it is brought to the surface during active remediation activities.

b) *Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

No Impact. See the response to item (a) above.

c) *Would the project expose sensitive receptors to substantial pollutant concentrations?*

No Impact. See the response to item (a) above.

d) *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?*

No Impact. See the response to item (a) above.

e) *Would the project create objectionable odors affecting a substantial number of people?*

No Impact. See the response to item (a) above.

4. **BIOLOGICAL RESOURCES.** Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|-------------------------------------|
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the DFG or USFWS? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the DFG or USFWS? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Have a substantial adverse effect on federally-protected wetlands as defined by Section 404 of the federal Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

- a) *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?*

Less Than Significant Impact. The proposed Policy would not cause any significant habitat modifications or affect any sensitive species. Most petroleum-impacted UST sites are located at developed facilities that do not support sensitive habitat. It is possible that a small number of petroleum-impacted UST sites exist in or near sensitive habitats and that destruction of the monitoring wells could affect those habitats. However, since remedial activities at cleanup sites would have already disturbed any potential habitat areas, site closure activities are not expected to cause any new adverse impacts to sensitive species or habitats.

- b) *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?*

Less Than Significant Impact. See the response to item (a) above.

- c) *Would the Project have a substantial adverse effect on federally protected wetlands as defined by section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

No Impact. Petroleum-impacted UST sites are not located within federally protected wetlands.

- d) *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

No Impact. Petroleum-impacted UST sites are typically located within urban areas that are not used as migratory corridors for wildlife or native resident species. Although there may be UST sites near migratory corridors, the proposed Policy would not cause any disruption of those corridors other than destruction of monitoring wells. The significant disruption, if any, would have already occurred during investigation and remediation activities including monitoring well installation and source removal.

- e) *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

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No Impact. The proposed Policy does not address the preservation of biological resources such as tree preservation, so no conflict is anticipated. The proposed Policy would not cause any disruption other than destruction of monitoring wells, which require local well destruction permits. The significant disruption, if any, would have already occurred during investigation and remediation activities including monitoring well installation and source removal.

- f) *Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

No Impact. The proposed Policy would not cause any significant habitat modifications or affect any sensitive species. Most petroleum-impacted UST sites are located at developed facilities that do not support sensitive habitat. It is possible that a small number of petroleum-impacted UST sites exist in or near sensitive habitats and that destruction of the monitoring wells could affect those habitats. Monitoring well destruction requires local permits, so any local requirements would be included in those permit requirements. However, since remedial activities at cleanup sites would have already disturbed any potential habitat areas, site closure activities are not expected to cause any new adverse impacts to sensitive species or habitats or conflict with any local, regional or State habitat conservation plans.

5. CULTURAL RESOURCES. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-------------------------------------|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

- a) *Would the project cause a substantial adverse change in the significance of a historical resource as defined in section 15064.5?*

No Impact. Although there may be petroleum-impacted UST sites near historical or culturally sensitive resources, the proposed Policy would not cause any disruption of those resources other than destruction of monitoring wells. The significant disruption, if any, would have already occurred during investigation and remediation activities including monitoring well installation and source removal.

At some sites, implementation of the proposed Policy may cause the regulatory agency to close a site earlier in the process than under current practice. Less active remediation at these sites could have a positive impact on cultural resources because most active

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remediation techniques (excavation, vapor extraction, groundwater extractions, etc.) are disruptive to the physical environment through the use of heavy equipment.

b) *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to section 15064.5?*

No Impact. See the response to item (a) above.

c) *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

No Impact. See the response to item (a) above.

d) *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

No Impact. See the response to item (a) above.

6. GEOLOGY and SOILS. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i) Rupture of a known earthquake fault, as delineated in the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines & Geology Special Publication 42. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| ii) Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iv) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Be located on expansive soils, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternate wastewater disposal systems where sewers are not available for the disposal of wastewater? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a) *Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death?*

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No Impact. The proposed Policy would have no impact on the geologic or seismic integrity of the site. Any excavation and fill activities would have already occurred and destruction of the monitoring wells will have no negative impacts.

b) *Would the project result in substantial soil erosion or the loss of topsoil?*

No Impact. See the response to item (a) above.

c) *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?*

No Impact. See the response to item (a) above.

d) *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial risks to life or property?*

No Impact. See the response to item (a) above.

e) *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?*

No Impact. See the response to item (a) above.

7. GREENHOUSE GAS EMISSIONS. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|-------------------------------------|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Less Than Significant Impact. The proposed Policy will not generate any greenhouse gases directly. Greenhouse gases emitted by diesel powered equipment during monitoring well destruction would be minor and of limited duration. Therefore, this impact would be less than significant. Because monitoring well destruction most often takes place at the time of case closure, the greenhouse gases emitted during well destruction will likely be generated regardless of this proposed Policy.

b) *Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?*

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No Impact. The California Global Warming Solutions Act of 2006 (Stats. 2006, ch. 488) (AB 32), mandates that California reduce its greenhouse gas emissions to 1990 levels by 2020. The proposed Policy would not conflict with AB 32. Any future requirements for the reduction of greenhouse gas emissions from construction or transportation equipment would need to be complied with and the proposed Policy would not interfere with any future requirements related to greenhouse gas emissions.

Lowering Greenhouse Gas Emissions

For those cases that qualify for closure under this proposed Policy and result in accelerated closure, the overall greenhouse gas emissions for those cases would be lower. For example, site monitoring would be discontinued and the greenhouse gas emissions required to complete further monitoring (e.g. site mobilization, traffic control, gauging and sampling, sample delivery and pickup) would be eliminated. Additional lowering of greenhouse gas emissions would be realized by eliminating the supplies required to sample groundwater (e.g. greenhouse gas emissions required to produce, transport and dispose of sampling equipment).

8. HAZARDS and HAZARDOUS MATERIALS. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|-------------------------------------|
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or to the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

- a) *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Less Than Significant Impact. The proposed Policy requires that waste piles, drums, and debris be removed from the petroleum-impacted site. Generally, petroleum-impacted UST sites that meet the criteria of the proposed Policy are beyond active remediation and are currently in the monitoring phase. In most cases, the waste piles, drums and debris will have already been removed, but if not, there is a low risk of impacts to the public or the environment through the routine transport or disposal of any remaining hazardous materials at the site.

- b) *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?*

Less Than Significant Impact. See the response to item (a) above. The proposed Policy authorizes closing petroleum-impacted UST cases if certain criteria are met and does not permit any releases of hazardous materials into the environment. As part of the closure process, monitoring wells will be destroyed and waste drums and debris will be removed. These activities pose a low risk of releasing hazardous materials into the environment.

- c) *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

Less Than Significant Impact. The proposed Policy authorizes closing petroleum-impacted UST cases if certain criteria are met and does not permit any releases of hazardous materials into the environment. Some of these sites could be located within one-quarter mile of an existing or proposed school. As part of the closure process, monitoring wells will be destroyed and waste drums and debris will be removed. These activities will not cause hazardous emissions. Hazardous materials may be handled during the debris-removal process, but the materials will be contained and will pose a low risk, if any, to the environment and surrounding community.

- d) *Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

Less Than Significant Impact. All petroleum-impacted UST cases are subject to the list of hazardous materials sites compiled pursuant to Government Code section 65962.5. However, closure of a case under the proposed Policy would not create a significant hazard to the public or the environment. Existing petroleum in the subsurface at these petroleum-impacted UST sites are part of the baseline. The proposed Policy contains criteria that, when met, preclude significant exposure to hazardous materials remaining in the subsurface at the site. The proposed Policy does not permit any releases of hazardous materials into the environment. As part of the closure process, monitoring wells will be destroyed and waste drums and debris will be removed. These activities do not pose a significant hazard to the public or environment.

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- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?*

No Impact. Although there may be USTs located within two miles of a public airport, destruction of monitoring wells and other site closure activities will not present a safety hazard for people residing or working in the area.

- f) *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?*

No Impact. Although there may be USTs located within the vicinity of a private airstrip, destruction of monitoring wells and other site closure activities will not present a safety hazard for people residing or working in the area.

- g) *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

No Impact. UST closure would take place on previously developed sites and would not interfere with emergency response plans or emergency evacuation plans. No impact would result.

- h) *Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*

No Impact. UST closures are not known to contribute to wildland fires, and therefore the exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires is not a potential impact.

9. HYDROLOGY and WATER QUALITY. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-------------------------------------|
| a) Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| j) Inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

- a) *Would the project violate any water quality standards or waste discharge requirements?*

No Impact. Petroleum-impacted groundwater that exists at UST sites is a part of the baseline condition. Natural attenuation processes degrade this petroleum and will restore water quality objectives (WQO) over time. The proposed Policy does not allow any discharge of petroleum and the proposed Policy would not violate any WQOs. Although the proposed Policy would allow petroleum to be left in place above WQOs, State policies do not require sites to meet WQO at the time of closure. Natural attenuation processes will continue to occur in the subsurface and WQOs will be met within a reasonable period of time.

Implementation of the proposed Policy would require destruction of monitoring wells, but any environmental risks associated with destruction are minimal. Some percentage of monitoring wells act as conduits for contamination to flow to previously unaffected portions of an aquifer. At sites with these wells, the hydrogeologic conditions and water quality will improve when the monitoring wells are destroyed.

- b) *Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?*

No Impact. UST closure does not use groundwater supplies.

- c) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation?*

No Impact. UST closure does not substantially alter the existing drainage pattern of the site or area.

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- d) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding?*

No Impact. See the response to item (c) above.

- e) *Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

No Impact. See the response to item (c) above.

- f) *Would the project otherwise substantially degrade water quality?*

No Impact. See the response to item (a) above.

- g) *Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?*

No Impact. UST closures do not involve housing.

- h) *Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?*

No Impact. Although there may be UST sites within one of the many 100-year flood plains in the State, implementation of the proposed Policy and destruction of monitoring wells will have no effect on flood flows, the risk of dam or levee failure, or any risk of loss, injury or death due to surface flow of water or other material.

- i) *Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?*

No Impact. See the response to item (h) above.

- j) *Would the project result in inundation by seiche, tsunami, or mudflow?*

No Impact. See the response to item (h) above.

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10. LAND USE AND PLANNING. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| a) Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a) *Would the project physically divide an established community?*

No Impact. UST closures will occur at established sites and will not divide established communities.

b) *Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*

No Impact. The proposed Policy is not expected to conflict with local land use and zoning decisions, and similarly, conflicts with local habitat conservation plans or natural community conservation plans are not expected.

c) *Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?*

No Impact. See the response to item (b) above.

11. MINERAL RESOURCES. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| a) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a) *Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

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No Impact. UST closure occurs on established sites and will not result in the loss of availability of mineral resources.

- b) *Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?*

No Impact. See the response to item (a) above.

12. NOISE. Would the project result in:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|-------------------------------------|
| a) Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing in or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing in or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

- a) *Would the project cause exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or in applicable standards of other agencies?*

Less Than Significant Impact. There would be increased noise for a short period during monitoring well destruction. Noise levels from equipment used for well destruction are not expected to exceed established standards.

- b) *Would the project cause exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

Less Than Significant Impact. See the response to item (a) above.

- c) *Would the project cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*

No Impact. Any increase in ambient noise levels would be temporary.

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d) *Would the cause project a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

Less Than Significant Impact. See the response to item (a) above.

e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

No Impact. UST closure would not involve any activities that could expose people residing or working near an airport to excessive noise levels. No impact would result.

f) *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?*

No Impact. See the response to item (e) above.

13. POPULATION AND HOUSING. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| a) Induce substantial population growth in an area either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a) *Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

No Impact. The project will have no impact on housing or population. Petroleum-impacted UST sites are generally small in acreage and the redevelopment of a site into residential housing would not significantly affect the surrounding community. Any redevelopment would need to comply with existing zoning and general plan requirements.

b) *Would the project displace substantial numbers of existing homes, necessitating the construction of replacement housing elsewhere?*

No Impact. See the response to item (a) above.

c) *Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*

No Impact. See the response to item (a) above.

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14. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| a) Fire protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services?*

No Impact. The project would not cause an increase in the need for additional public services. Even if redevelopment of the site occurred, the needed services would be similar to those that were provided when the UST was in operation at the facility.

15. RECREATION. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

No Impact. The project would not cause an increase in the use of parks, cause physical deterioration or the need for expansion of facilities. Petroleum-impacted UST sites are generally small in acreage and the baseline of a site into residential housing would not significantly affect the surrounding communities' use of, or need for, recreational facilities.

b) *Would the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?*

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No Impact. See the response to item (a) above.

16. TRANSPORTATION / TRAFFIC. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|-------------------------------------|
| a) Exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a) *Would the project exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan, policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?*

No Impact. The proposed Policy would not cause an exceedance of existing circulation systems. Traffic associated with UST closures is minimal.

b) *Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

No Impact. See the response to item (a) above.

c) *Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

No Impact. UST closures would have no impact on air traffic patterns.

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- d) *Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Less Than Significant Impact. There may be short-term disruption of traffic during well destruction activities if monitoring wells are located in streets. Traffic conditions might actually improve, because wells in streets have to be monitored periodically and traffic must be disrupted each time this monitoring occurs.

- e) *Would the project result in inadequate emergency access?*

Less Than Significant Impact. See the response to item (d) above.

- f) *Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?*

No Impact. See the response to item (a) above.

17. UTILITIES AND SERVICE SYSTEMS. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Comply with federal, state, and local statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

- a) *Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

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No Impact. Compliance with the proposed Policy will not require development of new utilities or services. Those services being utilized during site cleanup will be discontinued upon case closure.

- b) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?

No Impact. See the response to item (a) above.

- c) Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?

No Impact. See the response to item (a) above.

- d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

No Impact. See the response to item (a) above.

- e) Would the project result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. See the response to item (a) above.

- f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

No Impact. See the response to item (a) above.

- g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. See the response to item (a) above.

18. MANDATORY FINDINGS OF SIGNIFICANCE.

Issues (and Supporting Information Sources):

- a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

| Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--------------------------------|--|------------------------------|-----------|
|--------------------------------|--|------------------------------|-----------|

| | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

- a) *Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?*

No Impact. The majority of petroleum-impacted UST sites that would be covered under the proposed Policy are located in urban areas that have been previously disturbed by prior activities (operation of the UST facility and cleanup of the unauthorized release of petroleum). Neither fish and wildlife, nor historic or prehistoric resources would be impacted by the proposed Policy.

- b) *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)*

No Impact. Existing petroleum-impacted UST sites is the baseline condition and the proposed Policy does not authorize additional releases to the environment. The proposed Policy authorizes closing petroleum-impacted UST cases if certain criteria are met. If closure is appropriate under the proposed Policy, monitoring wells will be destroyed and any remaining waste piles or debris will be removed from the site. There will not be any considerable cumulative impacts from the destruction of monitoring wells and removal of waste piles because the impacts are not significant and will not occur at the same time, and the sites are typically separated by great distances.

- c) *Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?*

No Impact. The proposed Policy will not cause substantial adverse effects on human beings, either directly or indirectly.

Redevelopment

When evaluating the significance of the environmental effect of a project, an agency must consider both direct physical changes in the environment that may be caused by the project and reasonably foreseeable indirect physical changes that may be caused by the project. (CEQA Guidelines, §15064, subd. (d).) An indirect physical change is to be considered only if the change is a reasonably foreseeable impact. (CEQA Guidelines, § 15064, subd. (d)(3).) A

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change that is speculative or unlikely to occur is not reasonably foreseeable. (*Ibid.*) EIRs are not required to include speculation as to future environmental consequences of future development that is unspecified and uncertain. (*Environmental Council of Sacramento v. City of Sacramento* (2006) 142 Cal.App.4th 1018, 48 Cal.Rptr.3d., 544, *National Parks & Conservation Assn. V. County of Riverside* (1996) 42 Cal.App.4th 1505, 1515, 50 Cal.Rptr.2d. 339.)

Many petroleum-impacted UST sites that are subject to the proposed Policy are developed parcels of land, so closure of cases on these sites will not lead to redevelopment. Even though a subset of the petroleum-impacted UST sites that may be subject to the proposed Policy are undeveloped, future development at these sites throughout California is uncertain and environmental consequences of any future development cannot be fully considered in this **draft** SED. Any future development on sites that may be closed under this proposed Policy will be subject to a separate environmental review under CEQA. Even assuming that undeveloped parcels receiving site closure under the proposed project are redeveloped, the standard incidental effects of redevelopment (e.g., noise, traffic) would be separated by distance and time, the environmental effect would be less than significant.

5. Alternatives to the Project and Mitigation Measures

~~Draft~~ SEDs prepared by the State Water Board must include, among other things, an analysis of reasonable alternatives to the project and mitigation measures to avoid or reduce any significant or potentially significant adverse environmental impacts. (23 CCR § 3777, subd. (b)(3).) If, however, the State Water Board determines that no fair argument exists that the project could result in any reasonably foreseeable significant environmental impacts, then the State Water Board shall make that finding in lieu of the analysis described in subdivision (b)(3) of section 3777 (alternatives analysis and mitigation measures). The State Water Board has determined that no fair argument exists that the Project could result in any reasonably foreseeable significant adverse environmental impacts and, therefore, this **draft** SED does not identify and analyze any alternatives to this project or mitigation measures.

6. Methods of Compliance and Costs

Implementation of the Proposed Policy

The nine Regional Water Boards along with those authorized local agencies would implement the proposed Policy. Due to the diversity of each Regional Water Board and local agency, (e.g. number of cases, number of groundwater supply wells, UST program management practices) implementation of the proposed Policy may or may not increase the work load of the implementing agency. For some agencies, implementation of the proposed Policy would have little effect on work load and consist of shifting the type of oversight work from monitoring and sampling to verification and closure. The effect on other agencies could be much higher and require programmatic changes where there are many petroleum-impacted UST cases within a jurisdiction that potentially meet the proposed Policy and the responsible parties at those sites seek case closure around the same time. However, over time, implementation of the proposed Policy will lower the total work load of the implementing agencies as the total number of cases decrease and require no further oversight.

Compliance by Regulated Community

If a UST case meets the applicable criteria in the proposed Policy, the party seeking case closure must properly destroy monitoring wells at the site and remove waste piles, drums, debris and other materials before the case can be closed. As discussed in the Environmental Impacts section, there are environmental impacts associated with these activities, but the

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impacts are less than significant. The State Water Board has determined that no fair argument exists that the reasonably foreseeable methods of compliance with the project could result in any reasonably foreseeable significant adverse environmental impacts.

Cost Analysis

For those cases that qualify for closure under this proposed Policy and result in accelerated closure, the overall cleanup cost would be lower. For example, site monitoring would be discontinued, so the overall monitoring costs at the site would be reduced. Although, costs would be incurred as a result of closing these cases, (e.g. well destruction, soil and debris removal and disposal) the cost would be the same or more if these cases were to close in the absence of this proposed Policy and at a future date. Because of the variability of cases, (e.g. number of wells, location of wells, depth of wells) the cost to close a case varies as well. State Water Board staff estimate the average cost to close a case at approximately \$35,000.

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Appendix A

Proposed Low-Threat **UST** Underground Storage Tank Case Closure Policy