STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

STAFF REPORT FOR REGULAR MEETING OF DECEMBER 11-12, 2025
Prepared on November 26, 2025

ITEM NUMBER: **8**

SUBJECT: **UPDATE - CHEVRON GUADALUPE RESTORATION PROJECT**

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KEY INFORMATION

Location: The former Guadalupe Oil Field, San Luis Obispo County
Existing Orders: Cleanup and Abatement Order No. 98-38

ACTION: **Information/Discussion**

SUMMARY

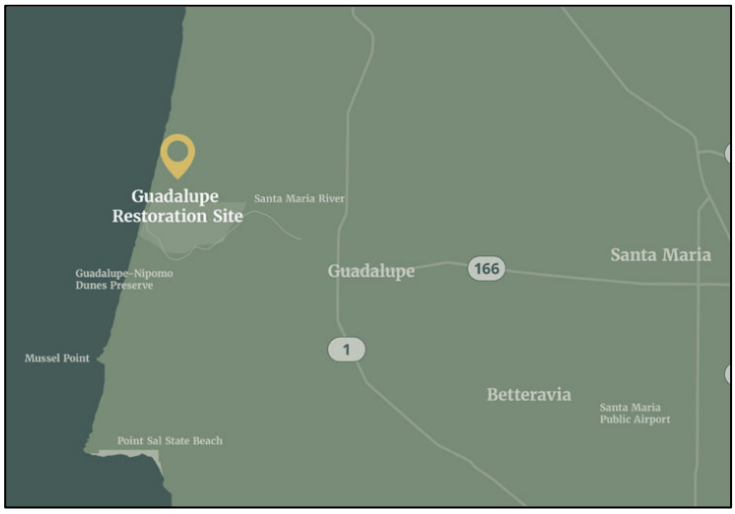
This is an informational item to provide an update on the Chevron Guadalupe Restoration Project, located in Santa Barbara County. The item will include presentations by staff from the Central Coast Regional Water Quality Control Board (Central Coast Water Board), Chevron Environmental Management Company (Chevron), and the California Department of Fish and Wildlife (CDFW). This staff report provides an overview of the history and cleanup of the former Guadalupe Oil Field (Site), referred to as the Guadalupe Restoration Project (GRP), and describes the status and future land use plans.

Oil exploration and production began at the GRP in the late 1940s. Responsible parties included the Sand Dune Oil Company, Continental Oil Company, and Union Oil Company of California (also referred to as Unocal) which produced oil from the Site from 1947 to 1994. A petroleum distillate called diluent was used as a solvent to enhance recovery of viscous crude oil at the oilfield during this operational period. During oilfield operations, petroleum hydrocarbons, including millions of gallons of diluent were discharged to the environment. Union Oil Company of California ceased all oil production from the oil field in approximately 1994.

Responses to petroleum hydrocarbon releases were conducted in the early 1990s and included targeted excavations and Site-wide investigations. Based on the results of the investigations, the Central Coast Water Board issued Cleanup and Abatement Order (CAO) 98-38[1] to Union Oil Company of California to require large scale cleanup. In 2005, Union Oil Company of California was acquired by Chevron. In the decades following this early work, Chevron has conducted oilfield restoration activities which include hydraulic diluent recovery, large-scale excavations, construction of a Class II Landfill (Soil Management Area, SMA) to store contaminated material, and extensive environmental and ecological restoration work. Chevron is approaching an endpoint for much of this work and is preparing for transition of GRP land ownership to the United Stated Fish and Wildlife Service (USFWS).

Background

The GRP is a 2,700-acre former oil field located west of the City of Guadalupe, approximately 10 miles south of Oceano. It is bounded on the south by the Santa Maria River and is composed of sand dunes. It is largely undeveloped except for oil field-related features that are mostly being removed or decommissioned.



Diluent release and transport have resulted in groundwater contamination beneath much of the GRP, impacting first-encountered groundwater, dune habitat, wetlands, intertidal waters and habitat, the Santa Maria River, and the Pacific Ocean. Since 1998, the primary remediation activities have focused on excavation activities and diluent-recovery efforts involving oversight by many agencies.

The Central Coast Water Board is the lead agency responsible for groundwater cleanup and has regulated cleanup activities since the early 1990s. In the late 1990s, a Multi-Agency Coordinating Committee (MACC) was formed to coordinate communication among the many federal, state, and local agencies involved in cleanup and restoration activities at the GRP. The County of San Luis Obispo is the lead entity responsible for

[1] CAO 98-38: https://geotracker.waterboards.ca.gov/?surl=a2wqf

overseeing surface excavations and compliance with the California Environmental Quality Act (CEQA). Other agencies involved with ecological and environmental resource management include the CDFW, the California Coastal Commission, the USFWS, and the United States Army Corps of Engineers.

The CAO directed Unocal Oil Company of California (acquired by Chevron in 2005) to cleanup former operations and described the large diluent source areas and sumps. The CAO describes some of the early cleanup technologies and introduces a phased approach to cleanup and lists cleanup levels for soil excavations. Most of the work described in the CAO has been completed.

As a result of negotiations from Central Coast Water Board enforcement actions with responsible parties, a Guadalupe Enforcement Settlement Fund of $15.7 million was established in 1998 to fund various grant projects. Some of these grant projects included funding for the Central Coast Cooperative Monitoring Program, City of Guadalupe wastewater treatment improvements, land and easement purchases for environmental protection, watershed coordinators and related activities, the Dunes Center in Nipomo, the Central Coast Low Impact Development Center, and the Groundwater Assessment and Protection Program.[2]

More detailed information and files related to this project are available in the GeoTracker database: http://geotracker.waterboards.ca.gov/?gid=SL203091246.

Cleanup Activities

Extensive cleanup activities have been completed in the decades following the initial Site-wide investigations to delineate hydrocarbon releases and former sump and oil field features. Hydraulic recovery of separate phase diluent has been the most significant ongoing groundwater cleanup effort and has been conducted in three main diluent bodies (Compressor Plant, Tank Battery 9, and Diluent Tanks). Enhanced diluent recovery technologies are being implemented to improve diluent recovery. Some of these technologies include Dual Phase Liquid Extraction (DPLE), solar skimming, solar bioventing, carbon dioxide flux monitoring and enhancement, and sulfate application. Groundwater monitoring is also conducted during implementation of these technologies to document effectiveness, natural degradation, and overall plume stability. Contaminated water from these recovery efforts is treated in an on-Site Advanced Water Treatment System (AWTS) and discharged to land after treatment at the Site.

Natural Source Zone Depletion (NSZD) studies[3] have been conducted on the main diluent plume bodies to understand and quantify the rate of natural degradation of

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[2] More information on the Gudalupe Enforcement Settlement Funds:
https://www.waterboards.ca.gov/centralcoast/board_info/agendas/2005/oct21/item6/item6_staff_report.pdf
https://www.waterboards.ca.gov/centralcoast/board_info/agendas/2005/dec/item9/item9_staff_report.pdf
https://www.waterboards.ca.gov/centralcoast/board_info/agendas/2008/feb/item9/item9_staff_rpt.pdf
https://www.waterboards.ca.gov/centralcoast/board_info/agendas/2008/sept/item20/item20_staff_rpt.pdf
https://waterboards.ca.gov/centralcoast/board_info/agendas/2009/jul/item_14/stfrpt_14.pdf
https://www.waterboards.ca.gov/centralcoast/board_info/agendas/2014/july/item12/item12_stfrpt.pdf

[3] Chevron NSZD Report: https://geotracker.waterboards.ca.gov/?surl=vjahw

petroleum hydrocarbons in groundwater. Substantial rates of natural diluent degradation have been observed (approximately 100 gallons per day natural degradation in the main diluent bodies). Results of these studies have been used to enhance ongoing diluent recovery programs and will be used for consideration of future remedy transition.

Excavations to remove near-surface former oil field features have been completed under a Pads Roads and Oil Spray (PROS) program. Additional source-zone excavations have been completed in areas such as B4a and 8x, among other sumps and tank batteries. Approximately one million cubic yards of impacted soil have been hauled to the Santa Maria Landfill to date. Plans for future excavations include the removal of the TB8 sump area which will be placed in the SMA.

The SMA is a Class II landfill that is designed to contain approximately 1.2 million cubic yards of impacted soil. Construction began in 2022 and it will continue to be filled with impacted soil until a final cover is placed, which is planned for 2029. The Central Coast Water Board approved the SMA in 2021. The SMA is a double-lined landfill consistent with Federal regulations associated with solid waste facilities contained within the Code of Federal Regulation (CFR), title 40, parts 257 and 258. The State Water Resources Control Board (State Water Board) promulgated regulations for the discharge of solid waste to land in the California Code of Regulations (CCR), Division 2, title 27 (CCR, title 27, §§20005-23014). Title 27 regulations contain classification criteria for wastes and for disposal sites and prescribe minimum standards for siting, design, construction, monitoring, and closure of waste management units. Construction of the SMA to contain impacted material on-Site as opposed to hauling off-Site is projected to eliminate more than 70,000 truck trips to the Santa Maria Landfill and reduces greenhouse gases, impacts on local air quality, and potential safety hazards on local roads.

Future Plans

Soil excavation work (with the notable exception of the remaining large-scale excavation at TB8) has largely been completed at the GRP. To verify completion of these excavations, Chevron proposed to conduct a Site-wide risk assessment to review and evaluate the risk to human health and the environment that each of these former excavation or restoration areas currently pose.

Chevron will continue groundwater cleanup operations and management, including hydraulic extraction, throughout the potential transfer and into the period of land ownership of the GRP to USFWS. Effectiveness of groundwater cleanup technologies will continue to be compared against NSZD degradation rates.

Chevron and USFWS entered into a preliminary donation agreement[4] in September 2025 which includes plans for Chevron to transfer the property to the USFWS in 3 to 5 years. The donation agreement describes that the Central Coast Water Board will consider the issuance of one or more No Further Action (NFA) letter(s) for soil remediation work, based on the results of a risk assessment to confirm completion of

[4] Chevron and USFWS Donation Agreement: https://geotracker.waterboards.ca.gov/?surl=y84ck

soil excavations and removal of surface impacts. An NFA letter for groundwater impacts is not being considered at this time because of long-term management and cleanup that is still required. The Central Coast Water Board has not commented on specifics of either the preliminary donation agreement or the potential forthcoming risk assessment.

The Central Coast Water Board supports the transition of the GRP ownership from Chevron to the USFWS and will continue to collaborate with both parties in the coming years to meet requirements to achieve this goal.

Human Right to Water

California Water Code section 106.3, subdivision (a) states that it is the policy of the State of California "that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitation purposes." On January 26, 2017, the Central Coast Water Board adopted Resolution R3-2017-0004, which affirms the realization of the human right to water and the protection of human health as the Central Coast Water Board's top priorities.

The ongoing cleanup and restoration of the GRP is consistent with Resolution R3-2017-0004 because it addresses sources of pollution and contaminated groundwater. While groundwater at the Site is not currently (or planned to be) used for drinking water, cleanup protects groundwater quality in the Central Coast Region. The Central Coast Water Board will continue to evaluate any remaining concentrations of contaminants in groundwater to ensure the protection of human health and the community's access to safe and affordable drinking water.

Environmental Justice

Environmental Justice principles call for the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income in the development, adoption, implementation, and enforcement of all environmental laws, regulations, and policies that affect every community's natural resources and the places people live, work, play, and learn. The Central Coast Water Board implements regulatory activities and water quality projects in a manner that ensures the fair treatment of all people, including Underrepresented Communities. Underrepresented Communities include but are not limited to Disadvantaged Communities (DACs), Severely Disadvantaged Communities (SDACs), Economically Distressed Areas (EDAs), Tribes, Environmentally Disadvantaged Communities (EnvDACs), and members of Fringe Communities.[5]

[5] Disadvantaged Community: a community with an annual median household income that is less than 80% of the statewide annual median household income (Public Resources Code section 80002(e)); Severely Disadvantaged Community: a community with a median household income of less than 60% of the statewide average. (Public Resources Code section 80002(n)); Economically Distressed Area: a municipality with a population of 20,000 persons or less, a rural county, or a reasonably isolated and divisible segment of a larger municipality where the segment of the population is 20,000 persons or less with an annual median household income that is less than 85% of the statewide median household income and with one or more of the following conditions as determined by the department: (1) financial hardship, (2) unemployment rate at least 2% higher than the statewide average, or (3) low population density. (Water Code section 79702(k)); Tribes: federally recognized Indian Tribes and California State

Furthermore, the Central Coast Water Board is committed to providing all stakeholders the opportunity to participate in the public process and provide meaningful input to decisions that affect their communities.

The GRP is not within a DAC block group; however, it is near neighboring areas with DAC block groups including the City of Santa Maria, City of Guadalupe, and the Nipomo area. Central Coast Water Board staff conducted community outreach during planning of the SMA and engaged with the community in both English and Spanish, and with relevant agencies. Currently, ongoing cleanup and restoration of the GRP does not directly affect these communities.

Climate Change

The Central Coast faces the threat and the effects of climate change for the foreseeable and distant future. To proactively prepare and respond, the Central Coast Water Board has launched the Central Coast Water Board's Climate Action Initiative, which identifies how the Central Coast Water Board's work relates to climate change and prioritizes actions that improve water supply resiliency through water conservation and wastewater reuse and recycling; mitigate for and adapt to sea level rise and increased flooding; improve energy efficiency; and reduce greenhouse gas production. The Climate Action Initiative is consistent with the Governor's Executive Order B-30-15 and the State Water Board's Climate Change Resolution 2017-0012.

Extreme weather events, including drought, high intensity precipitation, flooding, and extreme heat have occurred through much of California in the recent years, and are projected to increase in frequency, extent, or intensity due to climate change. Additional climate change impacts include prolonged fire seasons with larger and more intense fires, tree mortality, rising sea level and storm surges. More frequent high intensity precipitation may result in damage to existing oil field and restoration project features and will be considered in any future plans by Chevron and their consultants or future site managers.

On May 1, 2020, the California Coastal Commission approved Sea Level Rise Principles[6] that aim to guide unified, effective action toward sea level rise resilience for California's coastal communities, ecosystems, and economies. The document was co-developed and endorsed by state and regional agencies, including the State Water Board, to follow the Principles for Aligned State Action. The document specifies using a sea level rise target based on the best available science and a minimum of 3.5 feet of

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Indian Tribes listed on the Native American Heritage Commission's California Tribal Consultation List; EnvDACs: CalEPA designates the top 25 percent scoring census tracts as DACs. Census tracts that score the highest five percent of pollution burden scores but do not have an overall CalEnviroScreen score because of unreliable socioeconomic or health data are also designated as DACs (refer to the CalEnviroScreen 3.0 Mapping Tool or Results Excel Sheet); Fringe Community: communities that do not meet the established DAC, SDAC, and EDA definitions but can show that they score in the top 25 percent of either the Pollution Burden or Population Characteristics score using the CalEnviroScreen 3.0.

[6] Sea Level Rise Principles: https://documents.coastal.ca.gov/reports/2020/5/w6g/w6g-5-2020-exhibits.pdf

sea level rise by 2050. The document also adopts the policy of developing and utilizing more protective baselines for facilities such as water and wastewater systems.

In March 2018, the Ocean Protection Council adopted State of California Sea-Level Rise Guidance[7] (Guidance Document), which provides guidance to state agencies for incorporating sea level rise projections into planning, permitting, investment, and other decisions. The Guidance Document includes sea level rise projections for Port San Luis, which is approximately 16 miles from the GRP. By the year 2100, there is a 95 percent probability that sea level rise will be less than 4.1 feet. Rising sea levels are not expected to affect the cleanup operations or the SMA, but this will continue to be monitored.

Biodegradation of the hydrocarbons in impacted soil and groundwater will result in the production of greenhouse gases such as carbon dioxide (CO_2) and methane (CH_4). However, the rate of generation, and the volume produced, are expected to be minimal given the preponderance of weathered heavier end hydrocarbons and the low concentration of water-soluble hydrocarbons. Migration of landfill gas from the SMA is monitored with gas probes within an approved perimeter monitoring network to ensure that landfill gas production is below the standards required by CCR, title 27. If those standards are exceeded, Chevron will be required to install a gas control system. Additionally, as described above, disposing of impacted material on-Site at the SMA as opposed to hauling off-Site, significantly reduces the generation of greenhouse gases.

CONCLUSION

Significant cleanup and restoration progress has been accomplished at the GRP following decades of work completed by Chevron. The planned transition of the GRP to USFWS ownership marks a significant milestone and will provide benefits to the community. Central Coast Water Board Staff will continue to work collaboratively with Chevron to manage cleanup activities and are pleased to share these successes with the Board and members of the public.

[7] State of California Sea-Level Rise Guidance: https://opc.ca.gov/webmaster/ftp/pdf/agenda_items/20180314/Item3_Exhibit-A_OPC_SLR_Guidance-rd3.pdf