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

MEETING DATE: September 8, 2021

ITEM: 5

SUBJECT: Executive Officer's Report

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Phillips 66 Rodeo Refinery, Renewable Energy Projects-Land Reuse (Ross Steenson)

The Phillips 66 Rodeo Refinery is undertaking two projects to produce renewable energy: (1) installation of solar panels; and (2) construction of a pre-treatment unit as part of the conversion of the Refinery for renewable transportation fuel production. Both projects are beneficial land reuse projects that will be constructed in part or entirely over closed Refinery waste management units.

Solar Array Project

Phillips 66 and DG Rodeo Solar, LLC are planning to construct and operate a 26.8-megawatt, photovoltaic solar array facility on Refinery property east of Interstate Highway 80. The Project is part of the Refinery's on-site low-carbon renewable energy plans.

The Project layout consists of approximately 90 acres of solar equipment and associated infrastructure. Some of the solar arrays are to be installed on closed solid waste management units that are regulated under a Water Board waste discharge requirements order. The primary water quality concern associated with construction of any structure on a closed waste management unit is the mobilization of chemicals found in the waste to surface water or groundwater. DG Rodeo Solar prepared a Solar Array Development Plan describing the solar infrastructure design features and how the Project will be constructed and operated in a manner that mitigates potential for degradation of surface water and groundwater quality. Water Board staff reviewed and concurred with the Solar Array Development Plan.

Anticipated benefits of this project include:

- Beneficial reuse of land with closed waste management units
- Generation of sufficient electricity to power the equivalent of approximately 7,000 homes
- Elimination of approximately 42,000 metric tons per year of carbon dioxide emissions
- Creation of approximately 45 to 60 constructions jobs, to be filled by local union labor

The Refinery is expected to begin producing clean, renewable energy in 2022.

New Pre-Treatment Unit for Manufacturing Renewable Transportation Fuels

Phillips 66 is planning to construct a Pre-Treatment Unit (PTU) as part of the proposed conversion of its Rodeo Refinery from processing crude oil for manufacturing petroleum-based transportation fuels to processing renewable feedstocks (e.g., vegetable oils, used cooking oils, tallow) for manufacturing renewable transportation fuels (e.g., renewable gasoline, diesel, and jet fuel). Like the solar array project, the PTU will be constructed over a closed refinery waste management unit. Pending completion of the Environmental Impact Report and receipt of permits, the PTU will be constructed to decontaminate and condition the renewable feedstocks prior to further processing. The PTU decontamination process will remove metals and other solids that could harm the ability of the downstream hydrocarbon processing units to produce renewable transportation fuel. The process includes a combination of vacuum drying,

adsorption, filtration, centrifugal separation, and recovery of FOG (fats, oils and greases). Existing equipment and infrastructure will be used for receiving, transferring, and storing future renewable feedstocks and renewable products.

The footprint of the PTU overlaps a portion of Waste Site 4 which is currently covered by three aboveground petroleum tanks and is subject to a Water Board waste discharge requirements order. Phillips 66 prepared a development plan describing the construction activities that may affect the existing cover or the underlying waste including removal of existing tank foundations, re-grading of the existing berms, placement of imported soil, installation of a retaining wall, and installation of deepened foundations for the PTU facility structures. Water Board Staff have reviewed and conditionally concurred with the proposed plan. Because deep pile installation is necessary to structurally support the new PTU facility structures, and the piles could mobilize waste chemicals in groundwater, staff conditioned the approval with a requirement for additional groundwater monitoring that would assist with detecting releases from Waste Site 4.

Anticipated benefits of the Rodeo Renewed project include:

- Beneficial reuse of land with a waste management unit
- Improved air quality Expected emission reductions as compared to the current Refinery operations are 80 percent sulfur dioxide, 33 percent nitrogen oxide, and 20 percent particulate matter (PM10).
- Jobs for Contra Costa County The construction will generate over 500 jobs and the converted plant will provide more than 400 green jobs. Crude oil refinery workers will have the opportunity to transition to produce renewable fuels.
- Renewable Energy Once operational, the plant would be one of the world's largest, initially producing 800 million gallons per year of renewable fuels, which have lower lifecycle carbon emissions than petroleum products and stand to help California advance its low-carbon goals.

Morrison Canyon Road Construction Activities Investigation (Joe Monical)

In April 2019 and February 2020, the Board received a report of unauthorized construction activities at a property on Morrison Canyon Road in unincorporated Alameda County. These activities were alleged to have included grading, construction of a barn to be used as a private event center, road paving, unauthorized work in creeks, use of an inadequate on-site wastewater treatment system for disposal of treated wastewater, and impoundment of water beyond amounts allowed by a State Water Board Division of Water Rights authorization.

Staff completed an initial investigation after receiving the reports, which included coordination with other involved agencies, including the Alameda County Public Works Agency, Alameda County Department of Environmental Health, California Department of Fish and Wildlife, and the State Water Board's Division of Water Rights.

On April 20, 2021, staff inspected the property. During the inspection, staff observed violations of the Clean Water Act and the Water Code for performing construction activities without coverage under the Construction General Permit, including construction of impervious surfaces without appropriate post-construction runoff treatment controls, and for discharge of fill into waters of the State at the property. Staff issued a Notice of Violation for those violations, and a requirement to submit two technical reports:

- 1. A report that describes the construction, dredging, and fill activities that occurred on the site, including any associated environmental assessments, and any authorizations obtained to perform those activities.
- 2. A report that provides a work plan of corrective actions to restore waters of the State that were impacted either by the Project or by other unauthorized activities that resulted in dredge or fill impacts to waters of the State.

The technical reports will allow staff to evaluate impacts to the waters of the State that resulted from the related construction, dredging, and fill activities, assess what additional corrective actions may be necessary to protect water quality, and determine appropriate next steps to resolve the violations.

Special Recognition for Staff – Superior Accomplishment Award

Melissa Gunter (Watershed Management Division) was recognized by the State Water Board at its July 20 meeting for her role on the Statewide Winery General Order team. The team received a sustained superior accomplishment award for their hard work, diligence, patience, and endurance in getting the Winery General Order adopted by the State Water Board in January 2021, after six years in development.

Melissa played a key role on the team as the regional water board representative and provided continuity as one of the only team members involved from start to finish. She assisted with research, data analysis, stakeholder engagement, and drafting of permit language. She also championed region-specific interests, most notably the inclusion of a Local Agency Oversight Program that allows a local agency, such as Napa County, to apply to oversee wineries located within the agency's jurisdiction. During the award presentation, Karen Mogus, Deputy Director of the State Water Board Division of Water Quality, highlighted the value of having Melissa as the regional water board representative. Engaging regional water board staff to participate in the development of statewide orders is a best practice for that work.

Melissa will continue to play a key role in implementing the Winery General Order in our Region, including setting up the first Local Agency Oversight Program with Napa County's Environmental Health Division.

Cleanup of Diesel Spills (Demir Worthington and Brian Thompson)

The Water Board's emergency response team is responding to two diesel spills that impacted creeks in May and August. During both incidents, an equipment malfunction caused diesel to overflow onto ground, into a storm drain, and to a creek. Staff has been coordinating with other State and local agencies on sampling plans and cleanup methods and goals. Here's a summary of each spill and cleanup challenges.

Matadero Creek, Palo Alto

A generator malfunctioned at the Veterans Affair's Hospital in Palo Alto on May 6, causing approximately 200 gallons of diesel to backup and spray out of a ventilation pipe. Cleanup activities have included soil excavation, storm drain cleaning, and creek cleanup. Diesel in Matadero Creek was contained within about 700 feet of the outfall through a series of absorbent booms. No impacts to fish or wildlife have been observed and water sampling results show that diesel concentrations are decreasing. Because the creek is sensitive habitat, including for the red-legged frog, diesel removal efforts were balanced with the potential for habitat damage. Cleanup efforts were targeted in areas where diesel accumulated and included the use of absorbent materials, vegetation removal, and light scrubbing of creek banks. Soil excavation extended deeper than anticipated (over



five feet) because diesel seeped out of a joint in the storm drain For more information about the spill, visit the City of Palo Alto's <u>Community Update Website</u>.

Conn Creek, St. Helena

An air compressor's fuel tank overflowed due to a faulty automated refueling system at the St. Helena Water Treatment Plant on August 4, spilling about 95 gallons of diesel. Cleanup activities have included soil excavation near the compressor and creek outfall, storm drain cleaning, and creek cleanup. Diesel discharged to Conn Creek was contained within 600 feet of the outfall. The diesel sheen and odor dissipated within days of initial cleanup activities, and no impacts to fish or wildlife have been observed. The presence of multiple utilities and shallow bedrock made soil excavation using hand equipment difficult.



September 2021 Enforcement Actions (Brian Thompson and Jessica Watkins)

There were no proposed or settled enforcement actions since August's report.

401 Water Quality Certification Applications Received (Abigail Smith)

The table below lists those applications received for Clean Water Act section 401 water quality certification from July 9 through August 6, 2021. A check mark in the right-hand column indicates a project with work that may be in BCDC jurisdiction.

Project Name	City/Location	County	May have BCDC Jurisdiction
6326 Thornhill Drive Residential Development	Oakland	Alameda	
Pleasanton Ridge Pond 39 Restoration (PRPND039)	Sunol	Alameda	
Pleasanton Ridge Pond Restoration (PRPND022)	Sunol	Alameda	
Goat Rock NRCS Pond Restoration (PA094)	Unincorporated	Alameda	
Goat Rock NRCS Pond Restoration (PA164)	Unincorporated	Alameda	
1610 Lawrence Road Development	Danville	Contra Costa	
Happy Valley Pipeline's Lauterwasser Creek Crossing	Orinda	Contra Costa	
Motems Audit Concrete Superstructure Repairs 2020	Rodeo	Contra Costa	~
Repair Pilings Supporting Historic China Cabin	Belvedere	Marin	~
16 Lower Dr Erosion Repair	Mill Valley	Marin	
Tower Painting Program Waterway Towers	SF Bay	Multiple	~
Mountain Lake Walkway Rehabilitation	San Francisco	San Francisco	
Outfall E007 Structural Repair	San Francisco	San Mateo	~
Shoreline Lake Shoreline Improvements	Mountain View	Santa Clara	√

Project Name	City/Location	County	May have BCDC Jurisdiction
Coyote Percolation Dam Replacement Geotechnical Exploration Activities	San Jose	Santa Clara	
1551 Warm Springs Road Creek Bank Slide Repair	Glen Ellen	Sonoma	
Petaluma River Turning Basin Floating Dock Replacement	Petaluma	Sonoma	