Central Valley Regional Water Quality Control Board

27 October 2026

Toni DeMayo
Equilon Enterprises dba Shell Oil Products US
20945 S. Wilmington Avenue
Carson, CA 90810

NOTICE OF APPLICABILITY OF GENERAL ORDER NO. R5-2015-0012-082, Revision 1, IN-SITU REMEDIATION AND DISCHARGE OF TREATED GROUNDWATER TO LAND, EQUILON ENTERPRISES dba SHELL OIL US, 4301 MARCONI AVENUE, SACRAMENTO, SACRAMENTO COUNTY

Equilon Enterprises dba Shell Oil US (Equilon or Shell) submitted a Notice of Intent (NOI), requesting coverage under General Order No. R5-2015-0012, *General Waste Discharge Requirements for In-situ Groundwater Remediation and Discharge of Treated Groundwater to Land* (General Order) for the facility located at 4301 Marconi Avenue in Sacramento (the Site). The NOI was submitted to receive regulatory coverage to implement the scope of work described in the *Work Plan for In Situ Bioremediation Pilot Test* (Work Plan). After discussions with Wayne Perry, Inc., regarding the Work Plan, Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff concurred with the Work Plan on 20 May 2026.

Upon review of the Work Plan and NOI, staff has determined that this project qualifies for coverage under the General Order. All the requirements contained in the General Order and those listed in the General Information section below are applicable to your project. You are assigned Order No. R5-2015-0012-082, Revision 1.

Project Location:

The project is at 4301 Marconi Avenue, in Sacramento as shown in Figure 1. The Sacramento County Assessor's Parcel Number (APN) is 271-0111-054-0000, and is within Township 9N, Range 6E, Mount Diablo Baseline and Meridian.

Project Description:

Shell has been monitoring chlorinated solvents and petroleum compounds in the soil and groundwater at the Site located in the east-central suburban area of Sacramento (Figure 1). The Site operated as an automotive fueling and service station between approximately 1955 and 1985 and Shell has been monitoring groundwater conditions since about 2005. The primary Chemicals of Concern (COCs) are tetrachloroethene (PCE) and trichloroethene (TCE). The pilot test is proposed to assess the feasibility of

in-situ remediation of the COCs. As evident by monitoring data, groundwater samples collected from Site monitoring wells located near the former dry well and seepage pit have consistently had PCE and TCE detections above the Maximum Contaminant Level (MCL). Accordingly, the proposed location is suitable for this pilot test.

As described in the Work Plan, this pilot test proposes injecting about 1,100 gallons of amendment containing Anaerobic Biochem with Zero Valent Iron (ABC+), guar, dehalococcoides, sodium sulfate, and magnesium oxide. Approximately 2,400 pounds of ABC+, 60 pounds of magnesium oxide, and 900 gallons of water will be used. The pilot test targets an area of approximately 40 feet long by 40 feet wide in the subsurface and upgradient of the previous pilot test. Shell will add approximately 7 liters of dehalococcoides culture with the ABC+ solution to support in-situ microbial activity. For this pilot test, Shell will deliver the groundwater amendment using a direct-push sonic drill rig via injection borings INJ-1, INJ-2, and INJ-3.

To monitor the effects of the pilot test, Shell will primarily monitor COC concentrations and additional monitoring parameters in monitoring well MW-2 and MW-9. Shell will also monitor the injection wells and other Site monitoring wells.

Contingency Plan:

The contingency plan identifies monitoring parameters in the compliance wells which could be affected by sub-surface injections: Depth to water, dissolved oxygen, oxidation-reduction potential (ORP), pH, temperature, and conductivity, turbidity, dissolved chloride, dissolved nitrate, dissolved sulfate, dissolved methane, alkalinity, and dissolved iron (collectively, Contingency Parameters). In aggregate, monitoring these parameters and analytes will allow Shell and the Central Valley Water Board to assess how addition of the substrate effects primary characteristics of the aquifer, assess the extent of reductive dechlorination, and monitor both buffering capacity and aerobic or anaerobic state of the aquifer. Information gathered from this pilot test should help confirm effectiveness or better formulate injectant compositions for a more effective pilot test later on. Shell shall enact the contingency plan if either concentration of a Contingency Parameter exceeds background by more than 20 percent, or if a Contingency Parameter exceeds the water quality objective. Should the Contingency Plan be triggered, Shell shall notify Central Valley Water Board staff as soon as practicable and resample the well that had the exceedance within 30 days. Should the resampling event confirm the initial exceedance, Shell will evaluate the risk and hazard the exceedance poses to potential receptors and sample the well for at least three consecutive quarters to evaluate the trend.

If corrective action is needed to restore a Contingency Parameter to acceptable levels, Shell initially suggests the following actions: additional sampling to determine the extent of the issue, aeration of groundwater to modify the groundwater conditions, and/or removal of substrate. Furthermore, performance monitoring will take place after any selected remedy is enacted. Should the Contingency Parameters remain above the

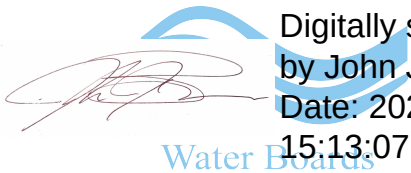
response level after taking corrective action, Shell shall coordinate with Central Valley Water Board staff to further address the exceedance.

On 19 June 2023, the Central Valley Water Board circulated a fact sheet describing the prior pilot test, which was of similar scope and intent to this pilot test, and providing interested parties with 30 days to submit comments or questions. No comments were received by 19 July 2023 or as of the date of this letter.

General Information:

1. The project will be operated in accordance with the requirements contained in the General Order and in accordance with the information submitted in the NOI.
2. The required annual fee (as specified in the annual billing you will receive from the State Water Resources Control Board) shall be submitted until this NOA is officially revoked.
3. Injection of materials other than ABC+, magnesium oxide, sodium sulfate, guar, dehalococcoides, and water into the subsurface is prohibited.
4. Failure to abide by the conditions of the General Order could result in an enforcement action as authorized by provisions of the California Water Code.
5. The project will implement the final contingency plan included as summarized above, within 30 days of it being triggered.
6. The Discharger shall comply with the attached Monitoring and Reporting Program, Order No. R5-2015-0012-082, Revision 1, and any revisions thereto as ordered by the Executive Officer.

If you have any questions regarding this matter, please contact Mr. Jeff Tierney at (916) 464-4680 or at Jeff.Tierney@Waterboards.ca.gov.



for PATRICK E. PULUPA
Executive Officer

Attachments: Monitoring and Reporting Program No. R5-2015-0012-082, Revision 1

cc: Erica Rodriguez, Wayne Perry, Inc., Buena Park
Gary Taylor, Taylor and Yenovkian, LLC, Sacramento
Robert Campbell, GeoSolve, Inc., Pleasanton

Figure 1: Site Vicinity Map

