
Central Valley Regional Water Quality Control Board

2 March 2022

Clayton Ludington, President
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NOTICE OF APPLICABILITY (NOA), CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD, ORDER R5-2017-0036, WASTE DISCHARGE REQUIREMENTS FOR OIL FIELD DISCHARGES TO LAND, GENERAL ORDER NUMBER THREE, LEGACY PETROLEUM LLC, MCKITTRICK LEASE, MCKITTRICK OIL FIELD, KERN COUNTY

On 12 August 2021, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) received a document titled, *Transfer of Coverage Request, Waste Discharge Requirements, R5-2017-0036, General Order for Oil Field Discharges to Land, McKittrick Lease, McKittrick Oil Field, Kern County* (Transfer Request). The Transfer Request was submitted by EnviroTech Consultants Inc. (EnviroTech) on behalf of Legacy Petroleum LLC (Legacy or discharger). Legacy is seeking coverage under Order R5-2017-0036, Waste Discharge Requirements General Order for Oil Field Discharges to Land, General Order Number Three (General Order Three). General Order Three provides regulatory coverage for discharges of oil field produced water (produced water or discharge) to land.

Legacy operates the McKittrick Lease, in the McKittrick Oil Field, in Kern County (Lease or facility). The Lease is in section 18 of T30S, R22E, MDB&M. The Lease is a crude oil production facility which includes a tank farm, flow lines, production wells, and other infrastructure. The Lease utilizes a single unlined surface impoundment (pond) for the disposal and percolation of produced water. The pond is approximately 75 feet long, and 25 feet wide.

The Lease used to be operated by Longbow LLC (Longbow), but ownership of the Lease was transferred to Legacy on 1 June 2021. In October 2018, the Lease was issued a Notice of Applicability for General Order Three, which gave Longbow regulatory coverage for discharges to the pond.

General Order Three applies to owners or operators of oil production facilities that:

- a. Primarily discharge produced water to land, but may also discharge produced water for dust control;
- b. Exceed the maximum specified salinity limits contained in the *Water Quality Control Plan for the Tulare Lake Basin, Third Edition, Revised May 2018* (Basin

- Plan);
- c. Discharge where the first encountered groundwater is of poor quality, does not support beneficial uses as designated by the Basin Plan, or there is no first encountered groundwater; and
 - d. Began the discharge prior to 26 November 2014.

This letter is a Notice of Applicability (NOA) that serves as formal notice that General Order Three is applicable to the Lease. General Order Number **R5-2017-0036-023** is hereby assigned to all produced water discharges into the pond. Legacy should become familiar with all of General Order Three, and Monitoring and Reporting Program No. R5-2017-0036-023 (MRP). The MRP is a revised version of the original monitoring and reporting program associated with General Order Three.

General Order Three regulates the discharge of produced water into the pond. As stated in California Water Code (Water Code) section 13263, all discharges of waste into waters of the state are privileges, not rights. General Order Three does not create a vested right for Legacy to continue discharging to the pond. Failure to prevent conditions that create or threaten to create pollution or nuisance, or cause degradation will be sufficient reason to modify, revoke, or enforce the provisions of General Order Three, as well as prohibit further discharge.

In 2006, the Central Valley Water Board, the State Water Resources Control Board (State Water Board), and regional stakeholders began a joint effort to address salinity and nitrate problems and adopt long-term solutions that will lead to enhanced water quality and economic sustainability. Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) is a collaborative basin planning effort aimed at developing and implementing a comprehensive salinity and nitrate management program. Dischargers in the Central Valley region began to receive Notice to Comply letters in 2020. Legacy will need to comply with requirements associated with CV-SALTS. The CV-SALTS effort might effect changes to the Basin Plan that would necessitate the re-opening of General Order Three.

FACILITY SPECIFIC REQUIREMENTS

1. Legacy shall maintain exclusive control of the discharge and shall comply with all of the requirements of General Order Three and the MRP. The MRP includes requirements for regular monitoring and reporting. Legacy shall operate and maintain the pond sufficiently to protect the integrity of containment and berms and prevent overtopping and/or structural failure.
2. As per Title 23, California Code of Regulations, section 2200, the discharge shall be given a TTWQ (threat to water quality) and CPLX (complexity rating) of 3C. This rating is used in part to assign fees. Legacy is responsible for all fees associated with the discharge until coverage under General Order Three for the Lease is officially terminated. The process for terminating coverage is described in General Order Three.

3. Under Discharge Specifications, Item B.2., General Order Three states, *“The discharge flow shall not exceed actual maximum monthly average produced wastewater flow to the pond between 26 November 2004 and 26 November 2014. The discharge flow also shall not exceed the maximum design flow of the Facility’s limiting unit as described by the technical data...”*

Longbow provided an estimation of the maximum monthly discharge volume of the pond. This information was provided in a Notice of Intent (NOI), which included technical and hydrogeological information. The NOI states, *“Longbow indicated in July 2017 that the pond is currently 4 feet deep, which gives the pond a current volume of 862 barrels of wastewater. Since the maximum flow to the pond was 9,204 barrels in 2004, then the maximum monthly effluent flow to the pond would be 767 barrels.”*

As stated above, the monthly maximum discharge volume to the pond is 767 barrels (bbls). Legacy shall not exceed this discharge volume.

In addition, the “design capacity” of the pond is identified in the NOI as being 431 bbls with two feet of freeboard. Two feet of freeboard must be maintained at all times in the pond. Any increase in discharge volume that would exceed the “design capacity” constitutes a facility expansion requiring an evaluation under the California Environmental Quality Act (CEQA).

4. On 14 January 2019, a letter was submitted by WZI, Inc. (WZI) on behalf of Longbow, which states that Longbow installed a flow meter at the Lease, in accordance with Provision E.3 of General Order Three. The purpose of Provision E.3 is to ensure that accurate measurements of discharge flow volumes are obtained, so that the pond influent volume does not exceed the design capacity. The letter was accompanied by a description of the flow meter, calibration records, and a diagram of the facility that shows where the meter is installed. The MRP Requires Legacy to submit metered flow results.
5. Provision E.4. of General Order Three (Provision 4) states that each discharger must submit either:
 - a. The results of a hydrogeological investigation demonstrating that there is no groundwater beneath the facility discharge areas and that produced water and constituents associated with other approved wastes discharged at the facility will not migrate into areas where there is groundwater with designated beneficial uses, or
 - b. If there is first encountered groundwater underlying the facility or the Executive Officer does not concur with the results of the investigation in Provision E.4.a., above, the discharger shall demonstrate that the natural background groundwater quality for the facility meets the Sources of Drinking Water Policy exception criteria and thus the current

Basin Plan groundwater beneficial uses are eligible for de-designation.

Some hydrogeologic information was submitted by Longbow in the NOI, and in a report submitted by WZI on behalf of Longbow in January 2019 (hydrogeologic report). Information submitted includes data from side wall core samples and electronic logs from nearby wells. The hydrogeologic report concludes that there is no groundwater underlying the Lease, and that discharges of produced water to the pond will not migrate to groundwater with beneficial uses. However, a review of hydrogeological information of the area surrounding the Lease found that conditions underlying the Lease are either not completely described in logs (e.g., not characterized to the surface), or appear to describe a potential water resource. For example, sidewall samples collected in the McKittrick G-5 WJ 300 well were described as having a “high water saturation” and “wet.” In addition, based on information submitted in the NOI and hydrogeologic report, it is not clear whether the discharge is able to migrate to waters with beneficial uses. Therefore, absent further information that demonstrates that there is no groundwater surrounding the Facility, it must be assumed based on the sidewall samples that there is groundwater.

Where groundwater exists, but its quality does not and could not support beneficial uses, General Order Three puts the discharger on a compliance schedule to obtain a Basin Plan Amendment.

Given the above, if Legacy cannot provide further information showing that there is no groundwater underlying the Facility, Legacy needs to obtain an appropriate Basin Plan Amendment. The process to obtain an appropriate Basin Plan Amendment is described in Provision 4.b, Task Items 1 through 10. Please note the dates associated with Task Items 1 through 10 are tied to the date that Longbow received its NOA for the site 16 October 2018. Many of these dates have passed. If Legacy is unable to obtain an appropriate Basin Plan Amendment by 16 October 2023, it will need to cease discharge to the pond.

While General Order Three states that the due dates for the Basin Plan Amendment are based on the date of NOA coverage, a new NOA based on a transfer of ownership does not re-start the original due dates in the initial NOA. Longbow was required to provide you with the applicable NOA (including all deadlines for Basin Plan Amendments), and your request for coverage also included a statement that you assume full responsibility for compliance with the General Order.

Dischargers with facilities in proximity to each other and with similar hydrogeological conditions are encouraged to participate in a regional or group effort to provide the information necessary to demonstrate that an area is appropriate for a Basin Plan Amendment. The California Independent Petroleum Association (CIPA) is pursuing a Basin Plan Amendment that includes the area where the Legacy site is located. It may be appropriate for Legacy to participate

in that effort. The Central Valley Water Board cannot guarantee that any specific effort will be successful in obtaining a Basin Plan Amendment, nor does it endorse any organization or group. However, it encourages dischargers to combine efforts, when appropriate.

6. The discharge of wastes other than of produced water into the pond is prohibited. Discharges not authorized by General Order Three and not described in the NOI should be reported to the Central Valley Water Board. If the method of disposal changes, or if the nature (including volume) of the discharge changes, Legacy must submit a Report of Waste Discharge.
7. If Legacy wishes to reuse solids produced at the Lease, then it must submit a solids management plan **at least 180 days prior to solids reuse**, as per Provision 7 of General Order Three. New solids reuse shall not commence prior to obtaining the written approval of the management plan from the Executive Officer. The solids management plan shall include information including: 1) a complete characterization of the quality and quantity of the solids, 2) a demonstration that the solids are not hazardous as defined by California Code of Regulations, title 22, section 66261.1 et seq., 3) a description of the proposed application area, 4) constituent loading rates, 5) a description of management practices, and 6) a demonstration that the reuse of solids will be protective of water quality.

More information on Provision 7 is provided in General Order Three.

8. Legacy shall not discharge produced water outside of the pond unless for permitted dust control use. Dischargers wishing to use produced water for dust control or in construction activities shall provide a proposed management plan for such activities. The requirements for a management plan is provided in General Order Three. If Legacy wishes to use produced water for dust control or construction activities, then it must submit a management plan to the Executive Officer **90 days prior** to the anticipated discharge. The discharge shall not occur without written approval by the Executive Officer.
9. General Order Three contains a prohibition (Prohibition A.5.) for the discharge of produced water that contains well stimulation treatment fluids. California Code of Regulations, title 14, which concerns well stimulation treatment, went into effect on 1 July 2015. Well stimulation is defined as a treatment to enhance oil and gas production or recovery by increasing the permeability of the formation (e.g., hydraulic fracturing, acid fracturing, and acid matrix stimulation).

According to information provided by Longbow, wells on the Lease are not stimulated. If Legacy has, or intends to stimulate wells, then it shall follow the compliance schedule provided by Provision E.8 of General Order Three. This is a three-year time schedule to either develop an alternate disposal

method or demonstrate that the discharge does not contain well stimulation treatment fluids in concentrations that could adversely affect beneficial uses of waters. If the Discharger does not achieve compliance with Prohibition A.5 by the time provided in General Order Three, then the discharge must cease.

10. According to information provided with the NOI, the discharge is contained within the pond. The NOI reports that, “...*facility is exempt from the Industrial Storm Water General Permit. As a result of the exemption for the Industrial Storm Water General Permit, Longbow will be applying for No Exposure Certification (NEC) coverage using the SMARTS system.*”

Order Number 2014-0057-DWQ (NPDES General Permit CAS000001) specifies waste discharge requirements for discharges of storm water associated with industrial activities. Information submitted in the NOI indicates that coverage under NPDES General Permit CAS000001 is not needed for the Lease. If the conditions at the Lease, Legacy will need coverage under NPDES General Permit CAS000001.

[A copy of General Order Three and the MRP](#) is included with the enclosures to this letter.

A copy can also be found online.

(https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2017-0036.pdf).

Legacy must comply with the Central Valley Water Board’s Standard Provisions and Reporting Requirements for Waste Discharge Requirements, dated 1 March 1991 (Standard Provisions). [A copy of the Standard Provisions](#) is included with the enclosures to this notice. A copy can also be found online.

(https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/std_provisions/wdr-mar1991.pdf).

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review this action in accordance with California Water Code section 13320 and CCR, title 23, division 3, chapter 6, section 2050 and those that follow. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Notice of Applicability, except that if the thirtieth day following the date falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day.

SUBMISSIONS

Documents that are less than 50 MB shall be sent via electronic mail to:

centralvalleyfresno@waterboards.ca.gov. Documents that are 50 MB or larger shall be mailed to the Central Valley Water Board office at: 1685 E Street, Fresno, CA 93706.

In addition, Legacy shall submit electronic copies of all work plans, reports, analytical results, and groundwater elevation data over the internet to the [State Water Board Geographic Environmental Information Management System database \(GeoTracker\)](https://geotracker.waterboards.ca.gov/) at: (<https://geotracker.waterboards.ca.gov/>).

[A frequently asked question document for GeoTracker](https://www.waterboards.ca.gov/ust/electronic_submittal/about.html) can be found at (https://www.waterboards.ca.gov/ust/electronic_submittal/about.html).

Electronic submittals shall comply with GeoTracker standards and procedures, as specified on the State Water Board's web site. Uploads to GeoTracker shall be completed on or prior to the due date. The discharger should note that only PDFs can be submitted to GeoTracker. The GeoTracker Global ID that is associated with this NOA is **T10000006768**.

Please review the enclosures for more information. If you have any questions regarding this matter, please contact Rebecca T. Asami of this office at (559) 445-5548 or by email at Rebecca.Asami@waterboards.ca.gov.

Original Signed by Clay L. Rodgers for:
Patrick Pulupa,
Executive Officer

Enclosures: General Order Three
1 March 1991 Standard Provisions
MRP No. R5-2017-0036-023

cc: Jessica Jahr, Attny IV, State Water Resources Control Board, Sacramento (via email and without enclosures)
Mark Ghann-Amoah, District Deputy for the Inland District, CalGEM, Bakersfield (via email and without enclosures)
Ethan Sarti, EnviroTech, Bakersfield (via email and without enclosures)