Central Valley Regional Water Quality Control Board

6 September 2024

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NOTICE OF APPLICABILITY

CENTRAL VALLEY WATER BOARD RESOLUTION R5-2023-0061; WAIVER OF WASTE DISCHARGE REQUIREMENTS, REPORTS OF WASTE DISCHARGE, AND/OR WATER RECYCLING REQUIREMENTS FOR SPECIFIC TYPES OF DISCHARGE WITHIN THE CENTRAL VALLEY REGION; DELANO ENERGY CENTER, LLC AND R&M CATTLE COMPANY; PEAKING POWER PLANT; TULARE COUNTY

On 15 March 2024, Delano Energy, LLC submitted a Report of Waste Discharge (RWD), to renew coverage under Resolution R5-2023-0061, *Waiver of Waste Discharge Requirements (WDRs), Reports of Waste Discharge (RWDs), and/or Water Recycling Requirements (WRRs) for Specific Types of Discharge Within the Central Valley Region* (or Low Threat Waiver) for the discharge of cooling tower blowdown wastewater from its peaking power plant for dust control and crop irrigation on lands owned by R&M Cattle Company. Delano Energy, LLC and R&M Cattle Company, as owners of the power plant and lands where the discharge is applied, respectively, are collectively referred to as Discharger. The discharge was previously regulated under the prior Low Threat Waiver by Notice of Applicability (NOA) R5-2018-0085-0005, which expired on 5 December 2023. Resolution R5-2023-0061 was adopted by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) on 14 December 2023 and replaced Resolution R5-2018-0085.

Based on the information provided, the discharge meets the required conditions for approval under the Low Threat Waiver. You are hereby assigned enrollee number **R5-2023-0061-0014.** Please include this number on all correspondence related to this discharge. A copy of the Low Threat Waiver is enclosed and available on the Central Valley Water Board's website at:

https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2023-0061.pdf

Please familiarize yourself with the contents of the Low Threat Waiver, including the conditions of Discharge (Attachment A of the Low Threat Waiver). The discharge must be managed in accordance with the requirements contained in the Conditions of Discharge, the information submitted in RWD, and this Notice of Applicability (NOA). The Low Threat Waiver will expire on **14 December 2028.** Prior to this date, the Discharger shall contact the Central Valley Water Board and either cease the discharge or submit a new RWD and application fee to continue the discharge under a renewed waiver, general order, or individual waste discharge requirements.

LOCATION

The Discharger owns and operates a peaking power plant (Facility) in section 32, Township 24 South, Range 25 East, Mount Diablo Base & Merdian (MDB&M). (assessor parcel number [APN] 336-150-014). The Facility and application areas are on land owned by R&M Cattle, a California General Partnership. Table 1 below presents the APNs associated with the Facility and their usage. Of the total 1,173 acres available, 513 acres are available for land application area to grow crops, and all parcels may be used for dust control.

Table 1 - Facility APNs

APN	Field Number	Acreage	Usage
336-150-014	Facility	2.69	Power Plant Facility
336-170-001	1	41.07	Dust Control
336-170-034	2	20.27	Dust Control
336-170-020	3	200	Dust Control
336-150-012	4	386.97	LAA and Dust Control
336-150-004	5	40	LAA and Dust Control
336-150-005	6	20	LAA and Dust Control
336-150-006	7	20	LAA and Dust Control
336-150-008	8	160	LAA and Dust Control
336-160-015	9	282.48	Dust Control
336-160-004	10	2.28	LAA and Dust Control

DESCRIPTION OF DISCHARGE

The Facility is dispatched by Wellhead Power Exchange, LLC up to a maximum of 2,500 hours per year, though dispatch is not expected to exceed 1,500 hours per year. The Facility includes a natural gas-fired turbine in simple cycle generation mode. Major components at the Facility include a turbine-generator, emissions control system, cooling tower, water distribution system, water storage tanks, and cooling tower blowdown storage system. Information presented in NOA R5-2018-0085-0005 indicates that the Discharger estimated that the power plant would discharge at a frequency of

25 times per year with a duration of six hours and a discharge rate of about 3,500 gallons per operating hour, for a total annual flow of 525,000 gallons per year; however, in 2018, the plant operated 214 hours and discharged about 750,000 gallons. In addition, the Discharger reported that plant operational hours and blowdown discharge volumes (estimated from blowdown pump run times) increased substantially during 2021 and 2022. Available operational hours and blowdown discharge data are presented in Table 2 below.

Table 2 - Historical Blowdown Water Volume

Year	Discharge Volume (gallons)	Pump Run Time (hours)
2018	750,000	--
2021	2,000,000	173
2022	2,850,000	246
2023	760,000	65

The RWD indicates that plant operations are contingent on hydroelectric generation, and, as such, energy demand is greater during dry years. The maximum annual blowdown discharge during wet years is estimated to be 1 million gallons, whereas the maximum dry year discharge volume is estimated to be 3 million gallons.

The Facility receives its source water from an on-site groundwater well and is filtered for sand and grit before being pumped to a 21,000-gallon raw water storage tank. Water from the storage tank is pumped through a reverse osmosis (RO) unit, producing permeate water and concentrate. The RO permeate water is stored in three 21,000-gallon tanks. The permeate water is pumped from the storage tanks to the turbine for use as emissions control, inlet air cooling, and water injection for producing electricity. The concentrate is sent to the cooling tower basin or the 30,000-gallon RO concentrate tank. Both RO concentrate water and raw water are used as cooling tower make up water. Cooling tower blowdown water is recirculated until electrical conductivity (EC) reaches 950 microsiemens/centimeter (µmhos/com), and then sent to the blowdown storage tank. From the blowdown storage tank, blowdown is directed to the storage tanks until EC within the cooling tower is 850 µmhos/cm.

Final use of cooling tower blowdown water is for dust control on neighboring dirt farm roads and for irrigating neighboring crops. The cooling tower blowdown storage tank is automated and equipped with a sensor that ensures an appropriate water level is maintained and may automatically discharge to a tailwater return pond one-half mile west of the Facility when water level within the tank is too high. Blowdown water is mixed with other irrigation sources in the tailwater pond and land applied to corn, wheat, and alfalfa. The blowdown storage tank is also equipped with a valve to fill water trucks for dust suppression. About 90 to 98 percent of discharged blowdown water is used for dust control, according to the farmer who utilizes the discharged water.

Cooling tower blowdown and source well water quality from samples collected on 28 February 2024 are shown below in Table 3.

Table 3 - Water Quality Data

Constituent	Source Well Water	Cooling Tower Blowdown Wastewater
Electrical Conductivity (µmhos/cm)	837	897
Fixed Dissolved Solids (mg/L)	300	420
Total Dissolved Solids (mg/L)	610	680
Total Nitrogen (mg/L)	12	14
Calcium (mg/L)	96	110
Sulfate (mg/L)	59	62
Potassium (mg/L)	4.1	5.1

FACILITY SPECIFIC REQUIREMENTS

The Low Threat Waiver and this NOA covers the discharge of cooling and elevated temperature waters to land. The Discharger shall comply with the requirements specified in the Low Threat Waiver and the facility-specific requirements listed below.

1. The discharge shall not:

    a. Create or threaten to create conditions of contamination, nuisance or pollution, as defined by Water Code section 13050, or otherwise degrade the quality of the water of the State.

    b. Contain “hazardous waste” per California Code of Regulation, title 22 (Title 22), section 66261.1 et seq., nor “designated wastes” per Water Code section 13173.

    c. Result in the discharge of waste to wetlands, surface water, drainage courses, or biologically or culturally sensitive area.

    d. Involve the discharge of any waste not specifically authorized in the Low Threat Waiver, and that could affect quality of water of the State.

2. The annual discharge of cooling tower blowdown **shall not exceed 3 million gallons**, the stated maximum wet year discharge. Should this occur, the Discharger shall notify the Central Valley Water Board and submit a Notice of Intent for coverage under the State Water Resources Control Board’s General Waste Discharge Requirements (WDRs) for Discharges to Land with a Low Threat to Water Quality, Water Quality Order No. 2003-0003-DWQ.

3. The Discharger shall submit the required annual fee (as specified in the annual billing statement issued by the State Water Resources Control Board) until this NOA is officially terminated.

4. Failure to comply with the requirements of this NOA, and the Low Threat Waiver, could result in enforcement actions as authorized by provisions of the California Water Code.

5. The Discharger shall notify the Central Valley Water Board of any changes in agreement or disposal of blowdown wastewater as described in the RWD and this NOA.

All monitoring reports and other correspondence should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50 MB should be emailed to: centralvalleyfresno@waterboards.ca.gov.

To ensure that your submittal is routed to the appropriate staff person, the following information should be included in the body of the email or any documentation submitted to the mailing address for this office:

Program: Non-15
Place ID: 779880
Facility Name: Delano Energy Center
Order: R5-2023-0061-0014

Documents that are 50 MB or larger should be transferred to a CD, DVD, or flash drive and mailed to:

Central Valley Regional Water Quality Control Board Fresno Office 1685 E Street Fresno, CA 93706

All documents, including responses to inspections and written notifications, submitted to comply with this Waiver shall be directed, via the paperless office system, to the Compliance and Enforcement Unit, attention to Omar Mostafa. Mr. Mostafa can be reached at (559) 445-5197 or Omar.Mostafa@waterboards.ca.gov. Questions regarding the permitting aspects of the Waiver, and notification for termination of coverage under the Waiver, shall be directed, via the paperless office system, to the WDR Permitting Unit, attention Salvador Vargas. Salvador Vargas can be reached at (559) 444-2488 or by email at Salvador.Vargas@waterboards.ca.gov.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Resources Control Board to review the action in accordance with California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Resources Control Board must receive the petition by 5:00 p.m., 30 days after the date of this NOA, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Resources Control Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the internet at Copies of the laws and regulations applicable to filing petitions

(https://www.waterboards.ca.gov/public_notices/petitions/water_quality) or will be provided upon request.

Alexander Mushegan
Digitally signed by Alexander Mushegan
Date: 2024.09.06 11:30:55 -07'00'

For Patrick Pulupa
Executive Officer

Attachments:

- Attachment A – Site Map Including LAAs
- Attachment B – Process Flow Diagram

Enclosure:

- Low Threat Waiver Resolution R5-2023-0061

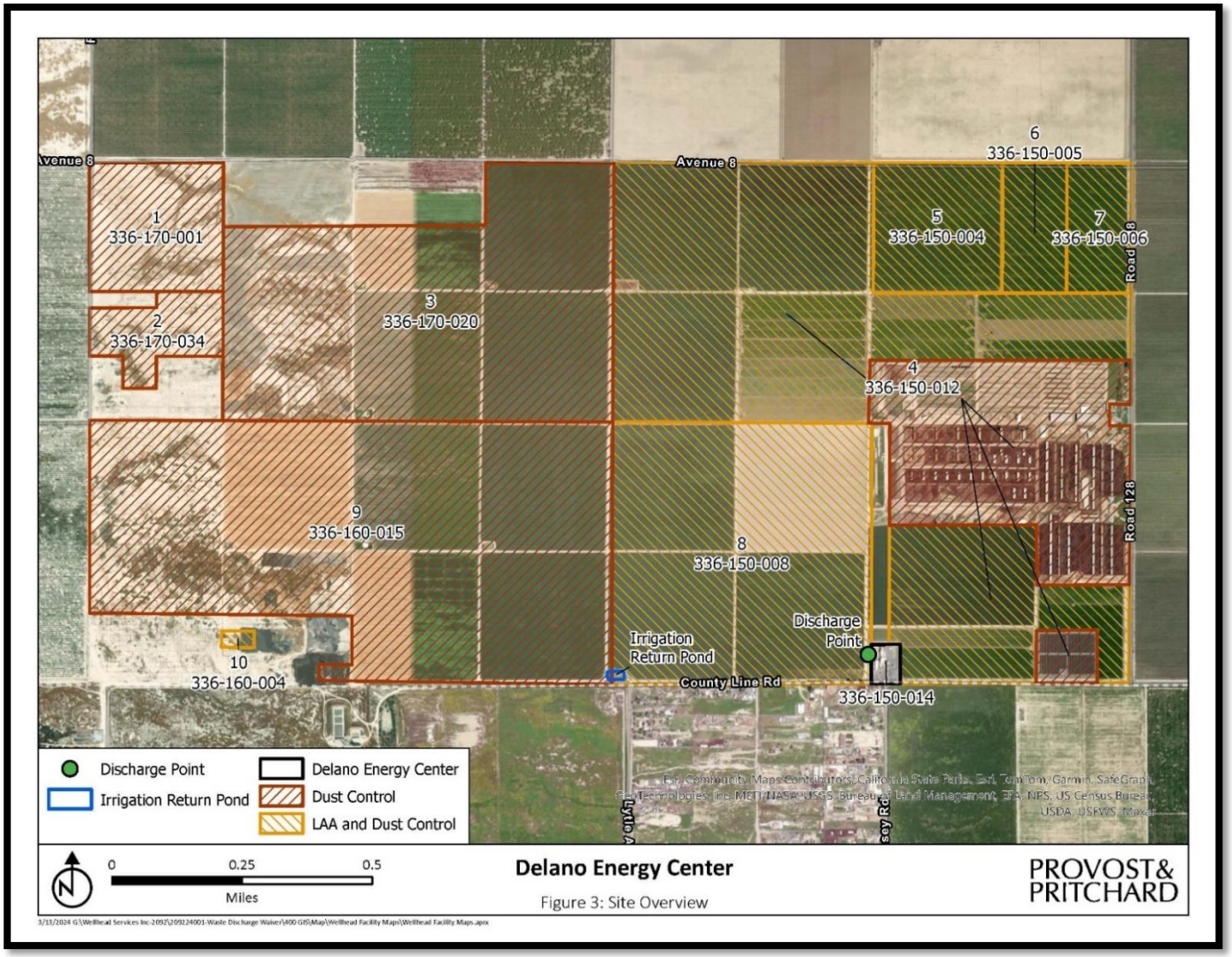
cc's:

- Christopher Moskal, State Water Resources Control Board, OCC, Sacramento (via email)
- Laurel Warddrip, State Water Resources Control Board, DWQ, Sacramento (via email)
- Tricia Wathen, State Water Resources Control Board, Division of Drinking Water (via email)
- Omar Mostafa, Central Valley Water Board, Fresno (via email)
- Tulare County Resource Management Agency, Visalia, CA
- Tulare County Environmental Health Division, Visalia, CA
- Kara J Miles, President & CEO, Delano Energy Center, LLC (via email)
- Myron Schotanus, Landowner, R&M Cattle Company (via email)
- Donald Ikemiya, Provost & Pritchard Consulting Group (via email)

Delano Energy Center, LLC
R&M Cattle Company
Peaking Power Plant
R5-2023-0061-0014

6 September 2024

Attachment A - Site Map Including LAAs



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Attachment B - Process Flow Diagram