



EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

12 June 2013

Mark Seedall
Principal Planner
Contra Costa Water District
1331 Concord Avenue
Concord, CA 94524

CERTIFIED MAIL
7012 2210 0002 1420 1715

NOTICE OF APPLICABILITY (NOA); LIMITED THREAT GENERAL WASTE DISCHARGE REQUIREMENTS ORDER R5-2013-0073 (GENERAL ORDER); CONTRA COSTA CANAL REPLACEMENT PROJECT, CONTRA COSTA COUNTY

Our office received a Report of Waste Discharge application on 29 March 2013 from the Contra Costa Water District (hereinafter Discharger), Contra Costa Canal Replacement Project (hereinafter Project) for discharge of groundwater to surface water at Rock Slough. Based on the application submitted by the Discharger, staff has determined that the Project meets the required conditions for approval under the General Order for Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water (Limited Threat General Order). This project is hereby assigned Limited Threat General Order R5-2013-0073-029 and National Pollutant Discharge Elimination System (NPDES) Permit No. CAG995002. Please reference your Limited Threat General Order number, **R5-2013-0073-029**, in your correspondence and submitted documents.

The Limited Threat General Order is enclosed, and may also be viewed at the following web address:

http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2008-0082.pdf. You are urged to familiarize yourself with the contents of the entire document. The Limited Threat General Order prescribes mandatory discharge monitoring and reporting requirements. The project activities shall be operated in accordance with the requirements contained in this NOA and the Limited Threat General Order.

PROJECT DESCRIPTION

The Contra Costa Canal Replacement Project is a drinking water supply protection and flood management project to replace four miles of unlined Contra Costa Canal with reinforced concrete pipeline from the Discharger's Pumping Plant 1 (PP1) to the Rock Slough Headworks. The first phase of the project was completed in 2009 and replaced approximately 1,900 feet of unlined Canal from PP1 to Marsh Creek. The Discharger will be constructing the second phase in 2014-2015, which will include approximately 5,500 feet of pipeline replacing the unlined canal from Marsh Creek to Sellers Avenue and will include a flood isolation structure at the Rock Slough headworks. During construction, shallow ground water will be extracted through wells to facilitate pipeline construction, and dewatered groundwater will be discharged to nearby land areas under the Discharger's existing NOA with State Water Resources Control Board's (State

Water Board) Water Quality Order No. 2003-0003-DWQ for the category of small/temporary dewatering projects. Discharge to land is the preferred disposal method; however due to landowner constraints or wet weather conditions, a portion of the dewatered groundwater will need to be discharged to surface water at Rock Slough.

During phase 2 construction, dewatering rates are expected to range from 5-10 million gallons per day (MGD) and will occur April 2014 through November 2015. Under a conservative scenario involving a wet year with 400 acres of land available for discharge, it is estimated that a daily maximum discharge rate of 3 MGD would be discharged to surface water. The actual flows may vary along the project alignment due to the differences in elevation between the base of the excavation and groundwater.

During the construction, shallow groundwater wells will be installed along the pipeline alignment. The purpose of the wells is to remove the groundwater below the anticipated trench bottom elevation so the soils can be sufficiently dried to enable compaction and backfill of the pipeline. Each groundwater well will discharge to a header pipeline that will convey the groundwater to the discharge areas. Groundwater will be land-applied to the extent possible, but may at times need to be discharged to surface water (Rock Slough).

The first dewatering configuration represents the period when the Canal work area is isolated from Rock Slough at the head works. This configuration provides the Rock Slough Fish Screen Afterbay (RSFS Afterbay) as a mixing area prior to discharge to Rock Slough. The extracted groundwater will not undergo any treatment; however, the Discharger will use a diffuser system to dissipate the groundwater in the RSFS Afterbay. The purpose of the diffuser system is to provide enhanced dilution of the groundwater before it is discharged to Rock Slough.

The second dewatering configuration involves isolation of the canal work area from Rock Slough at Sellers Avenue. This provides a larger mixing area prior to discharge of dewatered groundwater to Rock Slough, therefore, little to no impact to the receiving water is expected from discharge of dewatered groundwater to surface waters.

CALIFORNIA TOXIC RULE / STATE IMPLEMENTATION POLICY MONITORING

The Limited Threat General Order incorporates the requirements of the California Toxic Rule (CTR) and the State Water Board's *Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, 2005*, also known as the State Implementation Policy (SIP).

Screening levels for CTR constituents are found in Attachment B of the Limited Threat General Order. Review of your effluent water quality data in comparison to the CTR screening values, showed no reasonable potential for the discharge to cause or contribute to an exceedence of the CTR water quality objectives in Rock Slough. However, due to the discharge flow rate of up to 3 million gallons daily, this discharge has a limited threat to water quality.

EFFLUENT LIMITATIONS

The following effluent limitations are applicable to this discharge and are contained in Limitations and Discharge Requirements, Section V, of the Limited Threat General Order:

Effluent Limitations – Applicable to All Limited Threat Discharges

A.2 Acute Whole Effluent Toxicity. Survival of aquatic organisms in 96-hour bioassays of undiluted waste for all limited threat discharges shall be no less than:

- a. 70%, minimum for any one bioassay; and
- b. 90%, median for any three consecutive bioassays.

Effluent Limitations – Limited Threat Dischargers to Specific Waterbodies

B.4 The pH of all limited threat discharges within the Sacramento and San Joaquin River Basins (except Goose Creek) shall at all times be within the range of 6.5 and 8.5.

MONITORING AND REPORTING

Monitoring and reporting requirements are contained in Attachment E of the Limited Threat General Order. The Discharger is required to comply with the following monitoring and reporting requirements for the effluent and receiving water as specified in Attachment E of the Limited Threat General Order.

Effluent Monitoring – The Discharger shall monitor the effluent as required in Table E-2 for Total Flow, Electrical Conductivity @ 25°C, pH, and Whole Effluent Toxicity.

Effluent Monitoring – The Discharger shall monitor the limited threat discharge prior to discharging to Rock Slough Fish Screen Afterbay (EFF-001) as follows:

Table 1: Rock Slough Fish Screen Afterbay (EFF-001)

| Parameter | Units | Sample Type | Monitoring Frequency | Required Analytical Test Method |
|---------------------------------|----------------|-------------|----------------------|---------------------------------|
| Total Flow | gpd | Estimate | 1/Day | 1 |
| Electrical Conductivity @ 25 C° | µmhos/cm | Grab | 1/Month | 1 |
| pH | standard units | Grab | 1/Day | 1 |
| Acute Toxicity | % survival | Grab | 1/Year | 2 |
| Chronic Toxicity | -- | Grab | 1/Year | 3 |

¹ Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136

² The acute toxicity testing samples shall be analyzed using EPA-821-R-02-012, Fifth Edition. Temperature, ammonia, total residual chlorine, and pH shall be recorded at the time of sample collection. No pH adjustment may be made unless approved by the Executive Officer.

³ The presence of chronic toxicity shall be estimated as specified in Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, EPA/821-R-02-013, October 2002.

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The Discharger shall also monitor the limited threat discharge prior to discharging to Rock Slough at Sellars Avenue (EFF-002) as follows:

Table 2: Rock Slough at Sellars Avenue (EFF-002)

| Parameter | Units | Sample Type | Monitoring Frequency | Required Analytical Test Method |
|---------------------------------|----------------|-------------|----------------------|---------------------------------|
| Total Flow | gpd | Estimate | 1/Day | 1 |
| Electrical Conductivity @ 25 C° | µmhos/cm | Grab | 1/Month | 1 |
| pH | standard units | Grab | 1/Day | 1 |
| Acute Toxicity | % survival | Grab | 1/Year | 2 |
| Chronic Toxicity | -- | Grab | 1/Year | 3 |

- ¹ Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136
- ² The acute toxicity testing samples shall be analyzed using EPA-821-R-02-012, Fifth Edition. Temperature, ammonia, total residual chlorine, and pH shall be recorded at the time of sample collection. No pH adjustment may be made unless approved by the Executive Officer.
- ³ The presence of chronic toxicity shall be estimated as specified in Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, EPA/821-R-02-013, October 2002.

Receiving Water Monitoring – None required.

The Discharger must notify the Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff 24 hours 1) before the initiation of the discharge, and 2) as soon as noncompliance is anticipated. The Discharger shall also notify Central Valley Water Board staff when the discharge ceases. Monitoring in accordance with the Limited Threat General Order shall begin upon initiation of discharge. Monitoring reports shall be submitted to the Central Valley Water Board on a quarterly basis, and shall begin with the second Quarter 2013 Report, which will include monitoring required as of the date of this NOA. Quarterly monitoring reports must be submitted until your coverage is formally terminated in accordance with the Limited Threat General Order, even if there is no discharge or receiving water flow during the reporting quarter.

Rock Slough is not listed under the Clean Water Act 303(d) List of impaired water bodies. Therefore, no additional effluent limitations or monitoring requirements will be added to this Limited Threat General Order.

GENERAL INFORMATION AND REQUIREMENTS

The Central Valley Water Board shall be notified immediately if any effluent limit violation is observed during implementation of the project.

Discharge of material other than what is described in the application is prohibited. The required annual fee (as specified in the annual billing you will receive from the State Water Board) shall

be submitted until this NOA is officially terminated. You must notify this office in writing when the discharge regulated by the Limited Threat General Order is no longer necessary. If a timely written request is not received, the Discharger will be required to pay additional annual fees as determined by the State Water Board.

ENFORCEMENT

Failure to comply with the Limited Threat General Order may result in enforcement actions, which could include civil liability. Effluent limitation violations are subject to a Mandatory Minimum Penalty (MMP) of \$3,000 per violation. In addition, late monitoring reports may be subject to MMPs. When discharges do not occur during a quarterly report monitoring period, the Discharger must still submit a quarterly monitoring report indicating that no discharge occurred to avoid being subject to enforcement actions.

COMMUNICATION

All monitoring reports submittals, notification of the beginning and end of discharge, and questions regarding compliance and enforcement shall be directed to Lucio Orellana of the Central Valley Water Board's NPDES Compliance and Enforcement Unit. Mr. Orellana can be reached at (916) 464-4660 or lorellana@waterboards.ca.gov.

Questions regarding the permitting aspects of your Limited Threat General Order, and written notification for termination of coverage under the Order, shall be directed to Mr. Jim Marshall at (916) 464-4772 or at jdmarshall@waterboards.ca.gov.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water 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 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 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: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

Original Signed by Kenneth D. Landau for

Pamela C. Creedon
Executive Officer

Enclosure: General Order R5-2013-0073 (Discharger only)

cc: U.S. Environmental Protection Agency, Region IX, San Francisco
Phil Isorena, Division of Water Quality, State Water Board, Sacramento