



# California Regional Water Quality Control Board Central Valley Region

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Secretary for  
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16 June 2009

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Mr. Mark Seedall  
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Mr. Thomas Williams  
Ironhouse Sanitary District  
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***NOTICE OF APPLICABILITY: WATER QUALITY ORDER NO. 2003-0003-DWQ-0007,  
CONTRA COSTA CANAL REPLACEMENT DEWATERING DISCHARGE TO LAND,  
CONTRA COSTA COUNTY***

On 6 December 2007, the Central Valley Regional Water Quality Control Board (Central Valley Board) adopted Resolution No. R5-2007-0178, which is a conditional waiver of waste discharge requirements for land discharge of extracted groundwater during Phase I of the Contra Costa Canal Replacement Project. On 26 June 2008, Contra Costa Water District submitted an amended Report of Waste Discharge to change the land discharge area owned by Ironhouse Sanitary District. In February 2009, Contra Costa Water District requested that the waiver revision include additional phases of the project and an extension to the full five year term allowed by the California Water Code.

Based on the information provided in the RWD and amendments thereto, the proposed land discharge of extracted groundwater satisfies the general and specific conditions of the State Water Resources Control Board's Water Quality Order No. 2003-0003-DWQ for the category of small/temporary dewatering projects. Therefore, this serves as formal notice that the Water Quality Order No. 2003-0003-DWQ is applicable to the sites and discharge described below. You are hereby assigned General Order No. 2003-0003-DWQ-0007 for this discharge.

A copy of the General Order is enclosed. You can also find the General Order on the State Water Board's website at

[http://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/water\\_quality/wqo03.shtml](http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/wqo03.shtml)

You are urged to familiarize yourself with the contents of the entire General Order. The discharge must be managed in accordance with the requirements contained in the General Order and with the information submitted in the RWD.

It is expected that the Central Valley Water Board will rescind Resolution No. R5-2007-0178 at its 6/7 August 2009 meeting. Only Water Quality Order No. 2003-0003-DWQ will apply to the discharge described herein.

## **DISCHARGE DESCRIPTION**

The Contra Costa Canal Replacement Project is along the alignment of the existing Contra Costa Canal between Rock Slough and Pumping Station No. 1, which is on the east side of Oakley. The project will include excavation of the existing canal and dewatering along its entire length to facilitate placement of a 10-foot diameter reinforced concrete pipeline at an approximate depth of 20 feet to replace the unlined canal. Shallow groundwater will be extracted through shallow wells to facilitate pipeline construction, and will be discharged to designated disposal areas for percolation.

The entire project site, including the dewatering discharge areas, encompasses portions of Sections 24 and 25, T2N, R2E and Sections 19, 28, 29, 30 and 33, T2N, R3E and MDB&M, and is depicted on Attachments A and B, which form part of this Notice by reference. The dewatering discharge sites are owned by Ironhouse Sanitary District (approximately 90 acres on Assessors Parcel Numbers 037-191-033, 037-191-034, 037-192-011, and 037-192-009) and the California Department of Water Resources (approximately 426 acres on Assessors Parcel Number 037-191-036).

Shallow groundwater is typically five to eight feet below the surrounding grade along the entire pipeline alignment. Regional groundwater flow is generally northward towards the river. Proposed dewatering discharge rates will vary between approximately 0.5 and 2.1 million gallons per day (mgd) during the months of May through October, with minimal dewatering, if any, from November through April. Extracted groundwater will be conveyed by temporary pipelines to the designated disposal areas and will be land applied using flood irrigation methods. The existing berms and levees surrounding the discharge sites and management of discharge rates and schedules will be used to contain the water at all times.

Extracted groundwater will primarily be discharged to the land owned by the California Department of Water Resources (the former Emerson Dairy site), and the Ironhouse Sanitary District property will be used as a secondary discharge area during peak flows as necessary. Discharges of extracted groundwater to the former Emerson Dairy site will temporarily replace the use of irrigation water from Emerson Slough. Discharges to the land owned by Ironhouse Sanitary District will not impact Ironhouse Sanitary District's effluent disposal capacity. The RWD includes an adequate operation and maintenance plan with best management practices and a water balance that demonstrates adequate disposal capacity for anticipated discharge rates using a reasonably conservative numerical model.

Based on groundwater monitoring data collected by Ironhouse Sanitary District, shallow groundwater quality along the north side of the canal under Ironhouse Sanitary District's former effluent recycling areas is very saline with high concentrations of dissolved solids (1,400 to 8,100 mg/L), sodium (280 to 1,400 mg/L), chloride (190 to 2,400 mg/L), magnesium (56 to 450 mg/L), and sulfate (320 to 4,700 mg/L). These conditions are partly due naturally occurring salinity.

Based on limited data collected by Contra Costa Water District, shallow groundwater quality along the north side of the canal on the former Emerson Dairy site is saline with high concentrations of dissolved solids (970 to 1,500 mg/L), sodium (300 to 360 mg/L), chloride (160 to 430 mg/L). Nitrate nitrogen concentrations are also elevated at up to 25 mg/L. There

is no evidence to suggest that these conditions are not widespread under the former dairy, which ceased operation within the last six years.

Due to the fact that shallow groundwater will be extracted from, and discharged back into, the same aquifer with little potential for evapoconcentration and in or near the same area from which it was extracted, the discharge poses little or no threat to water quality if the water is discharged under conditions that prevent discharge to surface water.

#### **MONITORING AND REPORTING PROGRAM**

The Dischargers shall comply with the monitoring and reporting requirements prescribed in Monitoring and Reporting Program No. R5-2009-0827, which replaces Monitoring and Reporting Program No. 2003-0003-DWQ.

#### **GENERAL INFORMATION AND REQUIREMENTS**

The Dischargers shall comply with the Prohibitions, Discharge Specifications, Provisions, and Standard Provisions of Water Quality Order No. 2003-0003-DWQ.

Please review this Notice of Applicability carefully to ensure that it completely and accurately reflects the proposed project and dewatering discharge. If the discharge violates the terms or conditions, the Central Valley Water Board may take enforcement action, including assessment of administrative civil liability. If the method of waste disposal changes from that described in the RWD, you must submit a new RWD.

Contra Costa Water District will generate the waste subject to the terms and conditions of Water Quality Order No. 2003-0003-DWQ and will maintain exclusive control over the discharge. Ironhouse Sanitary District and the California Department of Water Resources are named as co-dischargers because these entities own the land where the discharge will occur. As such, Contra Costa Water District is primarily responsible for compliance with Water Quality Order No. 2003-0003-DWQ.

Failure to comply with the requirements in the Order could result in an enforcement action as authorized by provisions of the California Water Code. Discharge of wastes other than those described in the RWD is prohibited.

The required annual fee specified in the annual billing from the State Water Board shall be paid until this NOA is officially terminated. You must notify this office in writing if the discharge regulated by this Order ceases so that we may terminate coverage and avoid unnecessary billing.

All monitoring reports, submittals, discharge notifications, and questions regarding compliance and enforcement should be directed to Guy Childs at (916) 464-4648 or [gchilds@waterboards.ca.gov](mailto:gchilds@waterboards.ca.gov). Questions regarding the permit should be directed to Robin Merod at (916) 464-4697 or [rmerod@waterboards.ca.gov](mailto:rmerod@waterboards.ca.gov).

Pamela C. Creedon  
Executive Officer

Enclosures Monitoring and Reporting Program No. R5-2009-0827  
Water Quality Order No. 2003-0003-DWQ

cc w/o enc.:

Gordon Innes, Division of Water Quality, State Water Board, Sacramento  
Department of Fish and Game, Rancho Cordova  
Betty Graham, Department of Health Services, Richmond  
Sherman Quinlan, Contra Costa Environmental Health Department, Concord

alo:6/19/09