

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2010-0010

AMENDING CEASE AND DESIST ORDER
ORDER NO. R5-2008-0165 (NPDES PERMIT NO. CA 0078093)

CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION
DEUEL VOCATIONAL INSTITUTION
SAN JOAQUIN COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Central Valley Water Board) finds that:

1. On 24 October 2008, the Central Valley Water Board adopted Waste Discharge Requirements Order No. R5-2008-0164, prescribing waste discharge requirements for the California Department of Corrections and Rehabilitation, Deuel Vocation Institution, San Joaquin County. For the purposes of this Order, the California Department of Corrections and Rehabilitation is hereafter referred to as "Discharger" and the Deuel Vocational Institution is hereafter referred to as "Facility."
2. The Discharger is the owner and operator of a wastewater collection, treatment, and disposal system, and provides sewerage service to the Deuel Vocational Institution, a California prison facility. The treatment system consists of headworks (screening, grit removal, comminutors), extended aeration in an oxidation ditch, secondary clarifier, multimedia filters, chlorine contact basin, and dechlorination. The Discharger has an unlined aerated lagoon with a surface area of 2.24 acres, which is used to accept backwash water from the filters prior to recycling flow through the treatment process, and the lagoon additionally provides treatment redundancy for the oxidation ditch and secondary clarifier, as well as flow equalization during periods of high plant inflow. The site also has two unlined facultative ponds, which are currently used for retaining storm water on site and in the event of a process upset condition. Sludge is dewatered in sand drying beds and transported for offsite disposal. Wastewater is discharge to Deuel Drain, a water of the United States, within the Sacramento-San Joaquin Delta, and tributary to Paradise Cut and Old River. The Discharger also discharges industrial storm water and industrial water commingled with contaminated groundwater to Deuel Drain.
3. On 24 October 2008, the Central Valley Water Board found that the discharge from the Facility was unable to consistently comply with effluent limitations for bromoform, chlorodibromomethane, dichlorobromomethane, electrical conductivity, and nitrate. Therefore, at the time of the adoption of the Order, the Central Valley Water Board also issued Cease and Desist Order No. R5-2008-0165 (CDO), pursuant to California Water Code Section 13301. The CDO includes requirements and time schedules to bring the discharge into full compliance with the final effluent limitations.

4. On 30 June 2009, the Discharger submitted the biannual progress report as required by the CDO. The progress report addressed the status of projects that are required to comply with the CDO. The report identified that construction of the new treatment facility had been delayed.
5. The treatment facility construction completion date for CDO compliance is 1 October 2009 and final compliance with the effluent limitations for bromoform, chlorodibromomethane, dichlorobromomethane, electrical conductivity, and nitrate is 31 December 2009.
6. The funding source for the new treatment facility is based on loans approved by the State of California Pooled Money Investment Board. On 17 December 2008, the Pooled Money Investment Board suspended payments on those loans because of the state budget crisis. Work on the project was halted on 19 December 2008, pursuant to Budget Letter 08-33 issued by the Department of Finance. Although the Discharger requested an exemption to allow continued construction of the project, the project's financing was not restored until April 2009. Construction work resumed on the plant after financing was restored. The suspension of funding has delayed the construction of the new treatment facility. The Discharger has subsequently informed the Central Valley Water Board that there have been additional problems with the electrical subcontractor that will delay the project even more. The electrical subcontractor failed to order critical equipment that needs a long lead time for manufacturing. The Discharger's revised construction schedule is for completion of construction by 1 October 2010 and full compliance with the effluent limitations for bromoform, chlorodibromomethane, dichlorobromomethane, electrical conductivity, and nitrate to 31 December 2010.
7. The compliance schedule originally established in the CDO was based on the Discharger's construction schedule at the time the CDO was adopted. However, due to circumstances outside the control of the Discharger, the project has been delayed. Therefore, this Order amends CDO No. R5-2008-1065 by extending the compliance dates for construction completion of the treatment facility to 31 October 2010 and final compliance with the effluent limitations for bromoform, chlorodibromomethane, dichlorobromomethane, electrical conductivity, and nitrate to 31 December 2010.
8. The action to adopt or amend a CDO is exempt from the provisions of the California Environmental Quality Act (Public Resources Code section 21000, et seq.), in accordance with CWC section 13389 and 15061(b)(3) of the California Code of Regulations. The ongoing discharges are part of the CEQA baseline and any construction to address the discharge is the result of Waste Discharge Requirements Order No. R5-2008-0164 and not this Order.

9. The Central Valley Water Board has notified the Discharger and interested agencies and persons of its intent to amend the Time Schedule Order for this discharge and has provided them with an opportunity to submit their written views and recommendations.
10. 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 CWC 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 that this Order becomes final, except that if the thirtieth day following the date that this Order becomes final falls on a Saturday, Sunday, or state holiday (including mandatory furlough days), 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.

IT IS HEREBY ORDERED THAT:

Cease and Desist Order No. R5-2008-0165 (NPDES No. CA0078093) is amended as shown in underline/strikeout format in Attachment 1 to this Order.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on **29 January 2010**.

Original Signed by Kenneth Landau for

PAMELA C, CREEDON, Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

CEASE AND DESIST ORDER NO. R5-2008-0165-01
as amended by Order No. R5-2010-0010

REQUIRING CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION
DEUEL VOCATIONAL INSTITUTION
SAN JOAQUIN COUNTY
TO CEASE AND DESIST
FROM DISCHARGING CONTRARY TO REQUIREMENTS

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Regional Water Board), finds that:

1. On 25 April 2003, the Regional Water Board adopted Waste Discharge Requirements (WDRs) Order No. R5-2003-0065 (NPDES No. CA0078093) prescribing waste discharge requirements for the California Department of Corrections and Rehabilitation (hereafter Discharger), Deuel Vocational Institution (hereafter Facility), San Joaquin County.
2. Order No. R5-2003-0065 contained requirements that read, in part, as follows:

B. Effluent Limitations (Outfall 001):

1. *Effluent shall not exceed the following limits:*

<u>Constituents</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Average</u>	<u>Daily Maximum</u>
Electrical Conductivity	µmhos/cm	700	---	---	1,600
Nitrate	mg N/l	10	---	---	15
	lb N/day ³	52	---	---	77
Bromodichloromethane ⁵	µg/l	0.56	---	---	1.06
	lb/day ³	0.003	---	---	0.006
Bromoform ⁵	µg/l	4.3	---	---	8.39
	lb/day ³	0.022	---	---	0.043
Dibromochloromethane ⁵	µg/l	0.41	---	---	0.67
	lb/day ³	0.002	---	---	0.003

³ Based upon a dry weather flow of 0.62 mgd

⁵ Effective 1 March 2008

H. Provisions:

1. *The treatment facilities shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.”*

3. On 25 April 2003, due to the inability of the Discharger to comply immediately with effluent limitations contained at sections B.1, B.8, and C.1 of Order No. R5-2003-0065, the Regional Water Board adopted Cease and Desist Order (CDO) No. R5-2003-0066, which provided time schedules for compliance with the effluent limitations.
4. On 21 October 2005, because the Discharger had committed to the design and construction of a new water treatment plant and a new state-of-the-art wastewater treatment plant to comply with the effluent limitations contained in Order No. R5-2003-0065, the construction of which would not be complete until 1 March 2009, the Regional Water Board rescinded CDO No. R5-2003-0066 and adopted CDO No. R5-2005-0152.

CDO No. R5-2005-0152 requires, in part, that the Discharger comply with the effluent limitations contained in section B.1 of Order No. R5-2003-0065 for electrical conductivity, nitrate, bromoform, chlorodibromomethane, and dichlorobromomethane; and the provision contained in section H.1 by 1 March 2009.

5. On **24 October 2008**, the Regional Water Board adopted Order No. R5-2008-0164 rescinding Order No. R5-2003-0065 and prescribing revised waste discharge requirements for the Facility. Order No. R5-2008-0164 contains requirements that read, in part, as follows:

“IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point No. 001

1. Final Effluent Limitations – Discharge Point No. 001

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point No. 001, with compliance measured at Monitoring Location EFF-001 as described in the attached MRP (Attachment E):

- a. *The Discharger shall maintain compliance with the effluent limitations specified in the following table:*

Table 6. Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Priority Pollutants						
Bromoform	µg/L	4.3	--	5.8	--	--
Chlorodibromomethane	µg/L	0.41	--	0.58	--	--
Dichlorobromomethane	µg/L	0.56	--	0.82	--	--
Non-Conventional Pollutants						

Electrical Conductivity @ 25°C	µmhos/cm	700 ²	--	--	--	--
		1,000 ³	--	--	--	--
Nitrate Nitrogen, Total (as N)	mg/L	10	--	--	--	--

¹ Based on a design flow of 0.62 MGD.

² Applies from 1 April through 31 August.

³ Applies from 1 September through 31 March.

VI. PROVISIONS

C. Special Provisions

4. Construction, Operation and Maintenance Specifications

- a. *The treatment facilities shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.”*

The effluent limitations for bromoform, chlorodibromomethane, and dichlorobromomethane contained in Order No R5-2008-0164 have been revised as calculated according to the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The effluent limitations for electrical conductivity have been modified to be consistent with the applicable requirements contained in the Bay-Delta Plan. The average monthly effluent limitation for nitrate and the provision for the construction, operation, and maintenance of the Facility have been retained in Order No. R5-2008-0164 from Order No. R5-2003-0065.

6. The construction of the new water treatment plant ~~is~~ was originally scheduled to be completed by 1 October 2009 and the new wastewater treatment plant ~~is~~ was originally scheduled to be operational by 31 December 2009. However, due to funding issues associated with the state budget crisis in California and contractor issues, the project was delayed.
7. The funding source for the new treatment facility is based on loans approved by the State of California Pooled Money Investment Board. On 17 December 2008, the Pooled Money Investment Board suspended payments on those loans because of the state budget crisis. Work on the project was halted on 19 December 2008, pursuant to Budget Letter 08-33 issued by the Department of Finance. Although the Discharger requested an exemption to allow continued construction of the project, the project's financing was not restored until April 2009. Construction work resumed on the plant after financing was restored. The suspension of funding has delayed the construction of the new treatment facility. In addition, there have been additional problems with the electrical subcontractor that will delay the project even more. The electrical

subcontractor failed to order critical equipment that needs a long lead time for manufacturing. The Discharger's revised construction schedule is for completion of construction by 1 October 2010 and full compliance with the effluent limitations for bromoform, chlorodibromomethane, dichlorobromomethane, electrical conductivity, and nitrate to 31 December 2010.

8. The compliance schedule originally established in CDO No. R5-2008-1065 was based on the Discharger's construction schedule at the time the Order was adopted. However, due to circumstances outside the control of the Discharger, the project has been delayed. Therefore, Order No. R5-2010-0010 amended CDO No. R5-2008-1065 by extending the compliance dates for construction completion of the treatment facility to 31 October 2010 and final compliance with the effluent limitations for bromoform, chlorodibromomethane, dichlorobromomethane, electrical conductivity, and nitrate to 31 December 2010.

9. **MANDATORY MINIMUM PENALTIES.** In accordance with California Water Code (CWC) section 13385(j)(3), the Regional Water Board finds that until the new treatment systems are operational, the Discharger is not able to consistently comply with the effluent limitations for bromoform, chlorodibromomethane, dichlorobromomethane, electrical conductivity, and nitrate, as well as the provision for the construction, operation, and maintenance of the Facility.

7.——CWC section 13385(h) and (i) require the Regional Water Board to impose mandatory minimum penalties (MMPs) upon dischargers that violate certain effluent limitations. CWC section 13385(j) exempts certain violations from ~~the mandatory minimum penalties~~MMPs. CWC section 13385(j)(3) exempts the discharge from ~~mandatory minimum penalties~~MMPs "where the waste discharge is in compliance with either a cease and desist order issued pursuant to Section 13301 or a time schedule order issued pursuant to Section 13300, if all the [specified] requirements are met. ... For the purposes of this subdivision, the time schedule may not exceed five years in length..." ~~The time schedules for achieving compliance with effluent limitations for electrical conductivity and nitrate contained in WDR~~ Order No. R5-2003-0065 ~~were adopted by the Regional Water Board on 25 April 2003, contained effluent limitations for nitrate and electrical conductivity which took effect with an effective date of on~~ 14 June 2003. ~~CDO R5-2003-0066 contained a time schedule which gave the Discharger until 1 March 2008 to comply with the final limits for nitrate and electrical conductivity. CDO R5-2005-0152 extended this compliance deadline to 1 March 2009, but could not extend protection from MMPs beyond 5 years. For this reason, for nitrate and electrical conductivity, protection from MMPs ended on 14 June 2008.~~

WDR Order R5-2003-0065 also contained final effluent limits, in the form of monthly average and daily maximum limits, for bromoform, chlorodibromomethane, and dichlorobromomethane. These final effluent limits were to take effect on 1 March 2008. CDO R5-2003-0066 did not address these constituents. However, CDO R5-2005-0152 extended the compliance deadline for these requirements until 1 March 2009.

On 24 October 2008, the Regional Water Board adopted WDRs Order R5-2008-0164, which rescinded WDRs Order R5-2003-0065 and contained new daily maximum limits for bromoform, chlorodibromomethane, and dichlorobromomethane. On the same day, the Regional Water Board issued CDO R5-2008-0165, which provided protection from MMPs for these constituents, and contained a time schedule to achieve final compliance with the effluent limits by 31 December 2008.

By statute, CDO protection from MMPs cannot last longer than 5 years. CDO protection for the monthly averages for bromoform, chlorodibromomethane, and dichlorobromomethane (which were unchanged by WDRs Order R5-2008-0164) began on 1 March 2008 and may last through 1 March 2013. Because WDR Order R5-2008-0164, which was adopted by the Regional Water Board on 24 October 2008, contained more stringent regulatory requirements for the daily maximum limits for bromoform, chlorodibromomethane, and dichlorobromomethane, and because new control measures, which could not be implemented within 30 days of the issuance of the Order, must be implemented to comply with these limits, a CDO may be issued by the Regional Water Board providing protection from MMPs through 24 October 2013. Notwithstanding compliance schedules set forth in this Order, in accordance with the provisions of CWC section 13385(j), if the Discharger violates the effluent limitations in Order R5-2008-0164 for electrical conductivity or nitrate the Discharger may be subject to penalties set forth in section 13385(i) of the California Water Code.

~~8.~~ CWC section 13385(j)(3) requires the preparation and implementation of a pollution prevention plan (PPP) pursuant to section 13263.3 of the CWC. Provision H.7 of Order No. R5-2003-0065 required the Discharger to submit a PPP for bromoform, chlorodibromomethane, and dichlorobromomethane. CDO No. R5-2003-0066 required the Discharger to submit a PPP for electrical conductivity. This Order requires the Discharger to update and implement the existing PPPs for these parameters.

~~9-10.~~ This Order includes interim requirements and dates for their achievement. The time schedules do not exceed 5 years.

11. ~~10.~~—The compliance time schedule in this Order includes interim effluent limitations for bromoform, chlorodibromomethane, dichlorobromomethane, electrical conductivity, and nitrate. Interim effluent limitations typically consist of a maximum daily effluent concentration derived using sample data provided by the Discharger. In developing the interim limitations, where there are 10 sampling data points or more, sampling and laboratory variability is accounted for by establishing interim limits that are based on normally distributed data where 99.9% of the data points will lie within 3.3 standard deviations of the mean (*Basic Statistical Methods for Engineers and Scientists, Kennedy and Neville, Harper and Row*). When there are less than 10 sampling data points available, the *Technical Support Document for Water Quality-Based Toxics Control* ((EPA/505/2-90-001), TSD) recommends a coefficient of variation of 0.6 be utilized as representative of wastewater effluent sampling. The TSD recognizes that a

minimum of 10 data points is necessary to conduct a valid statistical analysis. The multipliers contained in Table 5-2 of the TSD are used to determine a maximum daily limitation based on a long-term average objective. In this case, the long-term average objective is to maintain, at a minimum, the current plant performance level. Thus, when there are less than 10 sampling points for a constituent, interim limitations are based on 3.11 times the maximum observed effluent concentrations to obtain the daily maximum interim limitation (TSD, Table 5-2). Because the maximum effluent concentrations for bromoform, chlorodibromomethane, dichlorobromomethane, electrical conductivity, and nitrate were greater than the statistically calculated effluent limitations, interim limitations were established at the maximum effluent concentration. ~~The interim limitations for total coliform organisms are established at the interim levels required in Order No. R5-2003-0065.~~

12. ~~11.~~—The Regional Water Board finds that the Discharger can undertake source control and treatment plant measures to maintain compliance with the interim limitations included in this Order. Interim limitations are established when compliance with the final effluent limitations cannot be achieved by the existing discharge. Discharge of constituents in concentrations in excess of the final effluent limitations, but in compliance with the interim effluent limitations, can significantly degrade water quality and adversely affect the beneficial uses of the receiving stream on a long-term basis. The interim limitations, however, establish an enforceable ceiling concentration until compliance with the effluent limitation can be achieved.
13. ~~12.~~—Section 13301 of the CWC states in part *“When a regional board finds that a discharge of waste is taking place or threatening to take place in violation of requirements or discharge prohibitions prescribed by the regional board or the state board, the board may issue an order to cease and desist and direct that those persons not complying with the requirements or discharge prohibitions (a) comply forthwith, (b) comply in accordance with a time schedule set by the board, or (c) in the event of a threatened violation, take appropriate remedial or preventative action. In the event of an existing or threatened violation of waste discharge requirements in the operation of a community sewer system, cease and desist orders may restrict or prohibit the volume, type, or concentration of waste that might be added to such system by dischargers who did not discharge into the system prior to the issuance of the cease and desist order. Cease and desist orders may be issued directly by a board, after notice and hearing, or in accordance with the procedure set forth in Section 13302.”*
14. ~~13.~~—The issuance of this Order is not a “project” as defined by the California Environmental Quality Act (Public Resources Code, Section 21000, *et seq.*) (CEQA), and does not have the potential to cause a significant adverse impact on the environment (Title 14 CCR section 15061(b)(3)). This Order enforces preexisting requirements to improve the quality of ongoing discharges that are part of the CEQA “baseline”; and includes interim effluent limitations to ensure that discharges do not increase above the CEQA baseline. Any measures to meet effluent limitations are the result of WDRs Order No. R5-2003-0065 and not this Order. Even assuming the

issuance of this Order is a “project” within the meaning of CEQA, issuance of this Order is exempt from the provisions of in accordance with Water Code Section 13389, which exempts the adoption or modification of a NPDES Permit for an existing source. This Order only serves to implement a NPDES permit and is therefore exempt under Section 13389. The issuance of this Order is also exempt under Section 15321(a)(2), Title 14, California Code of Regulations (CCR).

15. ~~14.~~—On **24 October 2008**, in Sacramento, California, after due notice to the Discharger and all other affected persons, the Regional Water Board conducted a public hearing at which evidence was received to consider a Cease and Desist Order under CWC section 13301 to establish a time schedule to achieve compliance with waste discharge requirements.
16. ~~15.~~—Any person adversely affected by this action of the Regional Water Board may petition the State Water Resources Control Board to review this action. The petition must be received by the State Water Resources Control Board, Office of the Chief Counsel, P.O. Box 100, Sacramento, CA 95812-0100, within 30 days of the date on which this action was taken. Copies of the law and regulations applicable to filing petitions will be provided upon request.

IT IS HEREBY ORDERED THAT Cease and Desist Order No. R5-2005-0152 is rescinded, and, pursuant to CWC Section 13301:

1. The Discharger shall comply with the following time schedule to ensure compliance with the effluent limitations for bromoform, chlorodibromomethane, dichlorobromomethane, electrical conductivity, and nitrate and the provision for the construction, operation, and maintenance of the Facility as described in Finding 5 above:

<u>Task</u>	<u>Compliance Date</u>
a. Update and implement Pollution Prevention Plan as specified in CWC Section 13263.3 for bromoform, chlorodibromomethane, dichlorobromomethane, and electrical conductivity.	12 December 2008
b. Complete construction of treatment facilities to comply with the effluent limitations for bromoform, chlorodibromomethane, dichlorobromomethane, electrical conductivity, and nitrate contained at sections IV.A.1.a and IV.A.1.f and the provision contained at section VI.C.4.a of Order No. R5-2008-0164.	1 October 20 1009
c. Final compliance with the effluent limitations for bromoform, chlorodibromomethane, dichlorobromomethane, electrical conductivity, and nitrate contained at sections IV.A.1.a and IV.A.1.f and the provision contained at section VI.C.4.a of Order No. R5-2008-0164.	31 December 20 1009
d. Submit Progress Reports ¹ .	1 January 2009, and 1 July 2009, and <u>1 July 2010</u>

¹ The progress reports shall detail what steps have been implemented towards achieving compliance with waste discharge requirements, including studies, construction progress, evaluation of measures implemented, and recommendations for additional measures as necessary to achieve full compliance by the final date.

2. The following interim effluent limitations for bromoform, chlorodibromomethane, dichlorobromomethane, electrical conductivity, and nitrate shall be effective immediately, and shall remain in effect until 31 December 20~~1009~~, or when the Discharger is able to come into compliance with the final effluent limitation, whichever is sooner.

Parameter	Units	Maximum Daily Effluent Limitations
Bromoform	µg/L	148
Chlorodibromomethane	µg/L	78
Dichlorobromomethane	µg/L	15
Electrical Conductivity @ 25°C	µmhos/cm	3,000
Nitrate Nitrogen, Total (as N)	mg/L	171

3. For the compliance schedules required by this Order the Discharger shall submit to the Regional Water Board on or before each compliance report due date, the specified document or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, and shall include an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Regional Water Board by letter when it returns to compliance with the time schedule.
4. If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may apply to the Attorney General for judicial enforcement or issue a complaint for Administrative Civil Liability.
5. Any person signing a document submitted under this Order shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my knowledge and on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on **24 October 2008** and amended on 29 January 2010 by Order No. R5-2010-0010.

Original signed by Pamela C. Creedon

PAMELA C. CREEDON, Executive Officer