

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TIME SCHEDULE ORDER NO. R5-2010-0030-01

REQUIRING THE EL DORADO IRRIGATION DISTRICT
EL DORADO HILLS WASTEWATER TREATMENT PLANT
EL DORADO COUNTY

TO COMPLY WITH REQUIREMENTS PRESCRIBED IN ORDER NO. R5-2007-0069
(NPDES PERMIT NO. CA0078671)

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

1. On 22 June 2007 the Central Valley Water Board adopted Waste Discharge Requirements (WDR) Order R5-2007-0069, NPDES Permit No. CA0078671, prescribing waste discharge requirements for the El Dorado Irrigation District (hereinafter Discharger) at the El Dorado Hills Wastewater Treatment Plant (hereafter Facility), El Dorado County.
2. WDR Order R5-2007-0069 contains Final Effluent Limitations IV.A.1.a., which reads, in part, as follows:

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Bis (2-ethylhexyl) phthalate	µg/L	1.8	--	3.6	--	--
Copper, Total Recoverable	µg/L	4.62	--	7.60	--	--
Cyanide	µg/L	4.26	--	8.54	--	--
Dibromochloromethane	µg/L	0.41	--	0.80	--	--
Dichlorobromomethane	µg/L	0.56	--	0.93	--	--
Persistent Chlorinated Hydrocarbon Pesticides	µg/L	ND ¹	--	--	--	--
Zinc, Total Recoverable	µg/L	23.9	--	69.0	--	--

¹ Detection limits shall be equal to or less than the lowest minimum level published in Appendix 4 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (known as the State Implementation Plan or SIP). For persistent chlorinated hydrocarbon pesticides not listed in Appendix 4, the lowest possible detectable level shall be used with a maximum acceptable detection level of 0.05 µg/L. Persistent chlorinated hydrocarbon pesticides include, but are not limited to aldrin, alpha BHC, beta BHC, delta BHC, lindane (gamma BHC), captan, 2,4-D, 2,4-DB, 2,4-D Compounds, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, chlordane, dalapon, dicamba, dichloran, dichloroprop, dicofol, dieldrin, dinoseb, endrin, endrin aldehyde, alpha endosulfan, beta endosulfan, endosulfan sulfate, heptachlor, heptachlor epoxide, hexachlorobenzene, isodrin (an isomer of aldrin), kepone (chlordecone), MCPA, MCPP, methoxychlor, mirex, PCNB (pentachloronitrobenzene), perthane, strobane, 2,4,5-T, 2,4,5,TP (silvex), 2,4,5-T compounds, and toxaphene. All peaks detected during the laboratory analysis other than those identified as persistent chlorinated hydrocarbon pesticides listed above are also to be reported, along with any explanation provided by the laboratory pertaining to what pollutants those peaks may indicate a presence of.

3. WDR Order R5-2007-0069 contains a compliance schedule for meeting the final effluent limitations for copper, zinc, bis(2-ethylhexyl)phthalate, dibromochloromethane, dichlorobromomethane, and cyanide with compliance required by 18 May 2010. WDR Order R5-2007-0069 also contains a compliance schedule for meeting the final effluent limitations for persistent chlorinated hydrocarbon pesticides with compliance required by 18 May 2012.

4. California Water Code (CWC) section 13300 states: *“Whenever a regional board finds that a discharge of waste is taking place or threatening to take place that violates or will violate requirements prescribed by the regional board, or the state board, or that the waste collection, treatment, or disposal facilities of a discharger are approaching capacity, the board may require the discharger to submit for approval of the board, with such modifications as it may deem necessary, a detailed time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements.”*

5. On 1 December 2006 the Discharger submitted justification for a compliance schedule for copper, zinc, bis(2-ethylhexyl)phthalate, dibromochloromethane, dichlorobromomethane, and cyanide; and heptachlor, dalapon, gamma-BHC, and endrin aldehyde, which are persistent chlorinated hydrocarbon pesticides. The Discharger’s submittal included: (a) documentation that diligent efforts have been made to quantify pollutant levels in the discharge and the sources of the pollutant in the waste stream; (b) documentation of source control measures and/or pollution minimization measures efforts currently underway or completed; and (c) a proposal for additional or future source control measures, pollutant minimization actions, or waste treatment (i.e., facility upgrades) with projected time schedules to achieve compliance with final effluent limitations. The Discharger indicated that the proposed schedule is as short as practicable, and that full compliance by 17 May 2010 may not provide adequate time for the Discharger to implement actions for the Facility to consistently comply with the final effluent limits for copper, zinc, bis(2-ethylhexyl)phthalate, dibromochloromethane, dichlorobromomethane, total trihalomethanes, endrin aldehyde, and cyanide. In addition, the Discharger indicated that the Facility may not be able to consistently comply with the interim and final effluent limits for gamma-BHC, heptachlor, and dalapon by 17 May 2012.

6. WDR Order R5-2007-0069 contains, in part, the following interim limits that are in effect through 17 May 2010:

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Bis (2-ethylhexyl) phthalate	µg/L	--	--	8.09	--	--
Copper, Total Recoverable	µg/L	--	--	23.88	--	--
Cyanide	µg/L	--	--	20.84	--	--
Dibromochloromethane	µg/L	--	--	3.28	--	--
Dichlorobromomethane	µg/L	--	--	23.95	--	--
Total Trihalomethanes	µg/L	--	--	178	--	--
Zinc, Total Recoverable	µg/L	--	--	330	--	--
Endrin Aldehyde	µg/L	--	--	--	0.529	--
gamma-BHC ¹	µg/L	--	--	--	0.208	--
Heptachlor ¹	µg/L	--	--	--	0.243	--
Dalapon ²	µg/L	--	--	--	3.1	--

¹ Interim limits of 0.04 µg/L and 0.0004 µg/L for gamma-BHC and heptachlor, respectively, are in effect from 18 May 2010 through 17 May 2012

² The interim limit is in effect through 17 May 2012.

7. In February 2008 the Discharger submitted pollution prevention plans (PPPs) for copper, zinc, bis(2-ethylhexyl)phthalate, dibromochloromethane, dichlorobromomethane, total trihalomethanes, cyanide, and persistent chlorinated hydrocarbon pesticides. The PPPs proposed source investigations for each constituent to determine potential source control actions necessary to achieve compliance with the applicable final effluent limitations in WDR Order R5-2007-0069.
8. On 4 November 2009 the Discharger submitted documentation demonstrating the diligent efforts it has been making to achieve full compliance with the final effluent limitations in WDR Order R5-2007-0069. However, the Discharger reported that the Facility has not yet achieved consistent compliance with the final effluent limitations in WDR Order R5-2007-0069 for copper, zinc, bis(2-ethylhexyl)phthalate, heptachlor, gamma-BHC, endrin aldehyde, dibromochloromethane, dichlorobromomethane, total trihalomethanes, cyanide, and dalapon. Therefore, based on the Discharger's past, ongoing, and potential future actions needed to consistently achieve compliance, the Discharger requested additional time to implement additional methods of compliance and to construct treatment facilities as necessary, and to conduct site specific studies to develop site specific water quality objectives to meet the final effluent limitations.
9. For copper and zinc, the Discharger completed a copper site-specific water-effect-ratio (WER) study and submitted the final report in April 2008. The Discharger is currently conducting a zinc WER study that is projected to be completed in December 2010. The final zinc WER report will also evaluate whether the individually derived copper and zinc WERs are protective when used in combination, and therefore, may influence the final copper WER previously reported. Following completion of the WER studies and subsequent evaluation of their combined effects, the Discharger requests time to complete the engineering feasibility and alternatives development selection, and to design and construct the facility upgrades necessary to comply with the new final copper and zinc effluent limits contained in WDR Order R5-2007-0069.
10. For bis(2-ethylhexyl)phthalate, and the persistent chlorinated hydrocarbon pesticides, the Discharger initiated a source investigation in January 2009 to characterize potential sources. The source investigation includes influent and effluent monitoring, and is projected to be completed in May 2010. The Discharger requests time to complete the source investigation, and in the event that subsequent source control actions do not resolve the compliance issue, the Discharger requests time to complete the engineering feasibility and alternatives development selection, and to design and construct the facility upgrades necessary to comply with the new final bis(2-ethylhexyl)phthalate, heptachlor, endrin aldehyde, gamma-BHC, and dalapon effluent limits contained in WDR Order R5-2007-0069.
11. For dibromochloromethane, dichlorobromomethane, and total trihalomethanes, the Facility's current construction project to replace the chlorine disinfection system with an ultra-violet (UV) disinfection system is expected to minimize the formation of dibromochloromethane, dichlorobromomethane, and total trihalomethanes; and thus, achieve compliance with the applicable final effluent limitations in WDR Order

R5-2007-0069. The UV disinfection system is projected to be fully operational in May 2011; therefore, the Discharger requests additional time to complete this Facility upgrade.

12. For cyanide, replacement of the chlorine disinfection system with the UV disinfection is expected to help prevent the formation of cyanide; however, the current analytical procedure specified in US EPA's Standards Methods potentially causes compliance issues due to possible false positive results. US EPA is currently preparing draft rules that will modify approved sample preservation procedures for total cyanide, which has been shown to eliminate false-positive results, and is expected to be approved in June 2011. Nevertheless, the Discharger requests an additional two years beyond June 2011 given the uncertainty as to the potential need to implement additional construction improvements at the Facility to achieve full compliance with the final cyanide effluent limit contained in WDR Order R5-2007-0069.

13. In accordance with CWC section 13385(j)(3), the Central Valley Water Board finds that, based upon results of effluent monitoring, the Discharger is not able to consistently comply with the new water quality-based effluent limitations for copper, zinc, bis(2-ethylhexyl)phthalate, heptachlor, endrin aldehyde, gamma-BHC, dalapon, dibromochloromethane, dichlorobromomethane, total trihalomethanes, and cyanide. The final effluent limitations for these constituents are new, or more stringent, requirements that became applicable to WDR Order R5-2007-0069 after the effective date of adoption of the waste discharge requirement for which new or modified control measures are necessary in order to comply with the limitations, and the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days. The following table summarizes the effluent monitoring obtained over the past three years for these constituents:

Parameter	Units	MEC	Mean	# of Samples	# of Non-Detects
Copper	µg/L	8.11	5.09	16	1
Zinc	µg/L	61	38.5	16	0
Bis(2-ethylhexyl)phthalate	µg/L	5.6	--	16	12
Heptachlor	µg/L	0.11	--	18	17
Endrin Aldehyde	µg/L	0.17	--	18	17
gamma-BHC	µg/L	0.067	--	18	17
Dalapon	µg/L	2.0	--	13	10
Dibromochloromethane	µg/L	1.9	0.69	16	4
Dichlorobromomethane	µg/L	10	5.93	16	2
total Trihalomethanes	µg/L	82.1	38.6	16	0
Cyanide	µg/L	5.6	--	16	10

14. Immediate compliance with the new effluent limitations for copper, zinc, bis(2-ethylhexyl)phthalate, heptachlor, endrin aldehyde, gamma-BHC, dalapon, dibromochloromethane, dichlorobromomethane, total trihalomethanes, and cyanide is not possible or practicable. The Clean Water Act and the California Water Code authorize time schedules for achieving compliance.

Mandatory Minimum Penalties

15. CWC section 13385(h) and (i) require the Central Valley 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. CWC section 13385(j)(3) exempts the discharge from mandatory minimum penalties *“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.. .”*
16. By statute, a Cease and Desist Order or Time Schedule Order may provide protection from MMPs for no more than five years. Compliance with this Order exempts the Discharger from mandatory penalties for violations of the final effluent limitations for copper, zinc, bis(2-ethylhexyl)phthalate, dibromochloromethane, dichlorobromomethane, and cyanide, and the interim effluent limitations for heptachlor, gamma-BHC, endrin aldehyde, and dalapon, in accordance with CWC section 13385(j)(3).

Protection from MMPs for the final effluent limitations for dibromochloromethane, dichlorobromomethane, and total trihalomethanes begins on 18 March 2010 and may not extend beyond 31 May 2011. Protection from MMPs for the final effluent limitations for copper and zinc begins on 18 March 2010 and may not extend beyond 31 December 2012. Protection from MMPs for the final effluent limitations for bis(2-ethylhexyl)phthalate, and the interim effluent limitations for heptachlor, gamma-BHC, endrin aldehyde, and dalapon begins on 18 March 2010 and may not extend beyond 31 May 2013. Protection from MMPs for the final effluent limitation for cyanide begins on 18 March 2010 and may not extend beyond 31 January 2014.

17. Compliance with this Order exempts the Discharger from MMPs for violations of aluminum final effluent limitations found in WDR Order R5-2007-0069 as follows:
 - a. Aluminum: The final aluminum effluent limitations in WDR Order R5-2007-0069 became effective on 19 May 2012. This Order provides protection from MMPs beginning 4 October 2012 (the date of this Order) until 30 April 2013.
18. CWC section 13385(j)(3) requires the Discharger to update and implement a pollution prevention plan pursuant to section 13263.3 of the California Water Code.

19. Since the time schedules for completion of actions necessary to bring the waste discharge into compliance exceeds 1 year, this Order includes interim requirements and dates for achievement. The time schedules do not exceed 5 years.

The compliance time schedules in this Order include interim effluent limitations for copper, zinc, bis(2-ethylhexyl)phthalate, heptachlor, endrin aldehyde, gamma-BHC, dalapon, dibromochloromethane, dichlorobromomethane, total trihalomethanes, and cyanide. The interim effluent limitations are based on the current treatment plant performance.

The maximum daily interim limitations for copper, zinc, bis(2-ethylhexyl)phthalate, dibromochloromethane, dichlorobromomethane, total trihalomethanes, and cyanide in WDR Order R5-2007-0069 remain in effect pursuant to this Order.

The maximum daily interim effluent limitations for heptachlor, endrin aldehyde, gamma-BHC, and dalapon were based on current treatment plant performance during the past three years. In developing the maximum daily interim effluent limitation, where there are ten 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. When at least 80% of the data points are reported as non detected values, interim limitations are based on 3.11 times the maximum observed effluent concentration (MEC) to obtain the daily maximum interim limitation. The following table summarizes the calculations of the daily maximum interim effluent limitation for these constituents:

Parameter	Units	MEC	Mean (x)	Std. Dev. (sd)	Formula Used	Interim Limitation Maximum Daily
Heptachlor	µg/L	0.11	--	--	3.11* MEC	0.34
Endrin Aldehyde	µg/L	0.17	--	--	3.11* MEC	0.53
gamma-BHC	µg/L	0.067	--	--	3.11* MEC	0.21
Dalapon	µg/L	2.0	--	--	3.11* MEC	6

20. The Central Valley Water Board finds that the Discharger can 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. The Central Valley Water Board finds that the time schedules contained herein are as short as possible, taking into account the technological, operational, and economic factors that affect the design, development, and implementation of control measures that are necessary to comply with the final effluent limitations.
21. For aluminum, this Order maintains the interim maximum daily effluent limitation of 841 µg/L established in WDR Order R5-2007-0069.

Other Regulatory Requirements

22. On 18 March 2010, in Rancho Cordova, California, after due notice to the Discharger and all other affected persons, the Central Valley Water Board conducted a public hearing at which evidence was received to consider a Time Schedule Order under CWC section 13300 to establish a time schedule to achieve compliance with waste discharge requirements.
23. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code section 21000, et seq.), in accordance with California Code of Regulations, title 14, section 15321(a)(2)..

IT IS HEREBY ORDERED THAT:

1. The Discharger shall comply with the following time schedule to ensure compliance with the final effluent limitations for copper, zinc, bis(2-ethylhexyl)phthalate, persistent chlorinated hydrocarbon pesticides, dibromochloromethane, dichlorobromomethane, total trihalomethanes, and cyanide; and the interim effluent limitations for heptachlor, gamma-BHC, and dalapon contained in WDR Order No. R5-2007-0069 as described in the above Findings:

<u>Task</u>	<u>Date Due</u>
Submit Method of Compliance Workplan/Schedule	Within 6 months of adoption of this Order
Submit and implement an updated Pollution Prevention Plan (PPP) pursuant to CWC section 13263.3	Within 6 months of adoption of this Order
Annual Progress Reports ¹	1 December, annually , after approval of workplan until final compliance
Full compliance with the final effluent limitations for dibromochloromethane and dichlorobromomethane	1 June 2011
Full compliance with the final effluent limitations for copper and zinc	1 January 2013
Full compliance with the final effluent limitations for bis(2-ethylhexyl)phthalate	1 June 2013
Full compliance with the interim effluent limitation for gamma-BHC, heptachlor, and dalapon; and the final effluent limitations for persistent chlorinated hydrocarbon pesticides	1 June 2013
Full compliance with the effluent limitation for cyanide	1 February 2014

¹ The progress reports for dibromochloromethane, dichlorobromomethane, copper, zinc, bis(2-ethylhexyl)phthalate, heptachlor, persistent chlorinated hydrocarbon pesticides, and cyanide 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 maximum daily effluent limitations shall be effective immediately and until the date specified in the table for the applicable parameter, or when the Discharger is able to come into compliance, whichever is sooner.

Effective immediately and until:	Parameter	Maximum Daily Effluent Limitation (µg/L)
31 May 2011	Dibromochloromethane	3.28
31 May 2011	Dichlorobromomethane	23.95
31 May 2011	total Trihalomethanes	178
31 December 2012	Copper, Total Recoverable	23.88
31 December 2012	Zinc, Total Recoverable	330
31 May 2013	Bis(2-ethylhexyl)phthalate	8.09
31 May 2013	Heptachlor	0.34
31 May 2013	Endrin Aldehyde	0.53
31 May 2013	gamma-BHC	0.21
31 May 2013	Dalapon	6
31 January 2014	Cyanide	20.84
30 April 2013	Aluminum	841

3. For the compliance schedules required by this Order, the Discharger shall submit to the Central Valley Water Board on or before the 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 may issue an Administrative Civil Liability Complaint pursuant to CWC section 13323.

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 of this Order, except that if the thirtieth day following the date of this Order 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.

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EL DORADO COUNTY

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 18 March 2010, as amended 4 October 2012.

Original Signed By

PAMELA C. CREEDON, Executive Officer