

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2004-0093

REQUIRING CITY OF RIO VISTA AND
ECO RESOURCES, INC
TRILOGY WASTEWATER TREATMENT PLANT
NORTHWEST WASTEWATER TREATMENT FACILITY
TO CEASE AND DESIST
FROM DISCHARGING CONTRARY TO REQUIREMENTS

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

1. On 9 July 2004, the Regional Board adopted Order No. R5-2004-0092 prescribing waste discharge requirements for City of Rio Vista (hereafter Discharger)Trilogy Wastewater Treatment Plant (WWTP)-Northwest Wastewater Treatment Facility (WWTF) in Solano County.
2. Waste Discharge Requirements (WDRs), Order No. R5-2004-0092, contains Effluent Limitation No. 1 which reads, in part, as follows:

“B. Effluent Limitations:

1. Effluent shall not exceed the following limits:

<u>Constituents</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>
Aluminum ¹⁰	µg/l	71	142
	lbs/day ³	0.12	0.24
Ammonia	mg/l-N	Attach G	Attach H
	lbs/day ³	calculate ⁶	calculate ⁶
Chloride	mg/l	106	
	lbs/day ³	177	
Electrical Conductivity	µmhos/cm	700	
Iron	µg/l	300	
	lbs/day ³	0.50	
Manganese	µg/l	50	
	lbs/day ³	0.083	
MBAS	µg/l	500	
(foaming agents)	lbs/day ³	0.83	
Nitrite	mg/l	1.0	
	lbs/day ³	1.7	

³ Based on an average dry weather flow of 0.2 mgd. For reporting purposes, compliance with these limitations shall be determined as follows. For monthly average limitations: (measured concentration [mg/l] x 8.345 [conversion factor] x monthly average flow rate). For daily maximum limitations: (measured concentration [mg/l] x 8.345 [conversion factor] x daily flow rate).

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- ⁶ Using the value, in mg/l, determined from attachment G and H, calculate the lbs per day using the formula:
 $x \text{ mg/l} \times 8.345 \times \text{design flow in mgd} = \text{lbs/day}$.
- ¹⁰ Compliance can be demonstrated using either total, or acid-soluble (inductively coupled plasma/atomic emission spectrometry or inductively coupled plasma/mass spectrometry) analysis methods, as supported by USEPA's Ambient Water Quality Criteria for Aluminum document (EPA 440/5-86-008), or other standard methods that exclude aluminum silicate as approved by the Executive Officer

3. Maximum pollutant effluent concentrations in the Discharger's Trilogy Plant effluent are summarized below:

Aluminum (total)	2400 µg/l
Ammonia (mg/L as N)	27 mg/L
Chloride	220 mg/L
Electrical Conductivity	1400 µmhos/cm
Iron	320 µg/L
Manganese	76 µg/L
Foaming Agents (MBAS)	2300 µg/L
Nitrite	3.6 mg/L

4. Additional pollutant data can be found in WDR's Order No. R5-2004-0092, Attachment E, a part of this Order.
5. Based on these Findings, and results of monitoring, the Discharger threatens to violate Effluent Limitations in WDR's Order No. R5-2004-0092 for aluminum, ammonia, chloride, electrical conductivity, iron, manganese, MBAS (foaming agents), and nitrite.
6. In accordance with California Water Code Section 13385(j)(3), the Regional Board finds that, based upon results of the Trilogy Plant effluent monitoring, the Discharger is not able to consistently comply with the aluminum, ammonia, chloride, electrical conductivity, iron, manganese, MBAS (foaming agents), and nitrite effluent limitations. These limitations are new requirements that become applicable to the Order after the effective date of adoption of the waste discharge requirements, and after 1 July 2000, for which new or modified control measures are necessary in order to comply with the limitation, and the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.

Since the time schedule for completion of action necessary to achieve full compliance and bring the waste discharge into compliance exceeds one year, interim requirements and dates for their achievement are included in this Order.

The compliance time schedule in this Order includes interim effluent limitations for aluminum, ammonia, chloride, electrical conductivity, iron, manganese, MBAS (foaming agents), and nitrite based on previous performance of the Trilogy Plant. These interim effluent limitations consist of a maximum daily effluent concentration derived using sample data shown in Attachment E, and applying statistical methodologies for estimating maximum concentrations identified in Chapter 3 of USEPA's Technical Support Document (TSD). Therefore, the interim daily maximum for each

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constituent is calculated by multiplying the maximum observed concentration by a factor of 4.2 from a 99% confidence level and 99% probability basis table (TSD Table 3.1), using the default coefficient of variation ($CV=\sigma/\mu$) of 0.6 (when data available is less than 10 samples) and number of samples ($n=5$, minimum number of samples available).

This time schedule does not exceed five years. Source control and treatment actions can be taken to correct the violations that would otherwise be subject to mandatory penalties under California Water Code section 13385(h) and (i). The discharger can take reasonable measures to achieve compliance within 5 years from the date the waste discharge requirements were required to be reviewed pursuant to Section 13380. In fact, the Discharger has proposed to come into compliance by constructing a new Northwest Wastewater Treatment Facility with an outfall and diffuser for direct discharge into the Sacramento River where there is assimilative capacity for all constituents except aluminum, iron, and manganese.

Furthermore, California Water Code Section 13385(j)(3) requires the Discharger to prepare and implement a pollution prevention plan pursuant to Section 13263.3 of the California Water Code. Therefore, in this case, since compliance with the aluminum, iron, and manganese effluent limitations will not be achieved with a direct discharge into the Sacramento River, a pollution prevention plan will be necessary for aluminum, iron, and manganese in order to effectively reduce the effluent concentrations by source control measures.

Compliance with this Order exempts the Discharger from mandatory minimum penalties for violations of aluminum, ammonia, chloride, electrical conductivity, iron, manganese, MBAS, and nitrite effluent limitations only, in accordance with California Water Code Section 13385(j)(3).

7. On 9 July 2004, in Sacramento, California, after due notice to the Discharger and all other affected persons, the Regional Board conducted a public hearing at which evidence was received to consider a Cease and Desist Order under California Water Code Section 13301 to establish a time schedule to achieve compliance with waste discharge requirements.
8. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 2100, et seq.), in accordance with California Water Code Section 15321 (a)(2), Title 14, of the California Code of Regulations.
9. Any person adversely affected by this action of the Regional 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 on request.

IT IS HEREBY ORDERED THAT:

1. The City of Rio Vista Trilogy WWTP-Northwest WWTF shall cease and desist from discharging and threatening to discharge contrary to WDR's Order No. R5-2004-0092, Effluent Limitations B.1 for aluminum, ammonia, chloride, electrical conductivity, iron, manganese, MBAS, and nitrite as described in the above Findings:
2. The City of Rio Vista shall comply with the following separate time schedule to ensure compliance with the aluminum, ammonia, chloride, electrical conductivity, iron, manganese, MBAS, and nitrite effluent limitations contained in WDR's Order No. R5-2004-0092 as described in the above Findings.

<u>Task</u>	<u>Date Due</u>
Commence Construction of necessary facilities, for a direct discharge to Sacramento River	1 October 2004
Complete Construction to allow direct discharge to the Sacramento River	28 February 2006
Full Compliance with ammonia, chloride, electrical conductivity, MBAS, and nitrite effluent limitations	1 March 2006
<u>Task</u>	<u>Date Due</u>
Begin Study for aluminum, iron, and manganese	1 June 2006
Submit Pollution Prevention plan for Al, Fe, and Mn pursuant to Section 13263.3 of the Water Code	1 September 2006
Begin Implementation of Pollution Prevention Plan	1 October 2006
Complete Study for aluminum, iron, and manganese	1 June 2007
Develop alternatives and implementation time schedule	1 September 2007
Begin implementation of selected alternative	1 January 2008
Progress Reports ¹	1 July and Dec 2008
Full compliance with aluminum, iron, and manganese effluent limitations	1 July 2009²

¹ The progress reports shall detail what steps have been implemented towards achieving compliance with waste discharge requirements, including construction progress, evaluate the effectiveness of the implemented measures and assess whether additional measures are necessary to meet the time schedule.

² If the Discharger is able to complete the corrective action and come into compliance at an earlier date than 1 July 2009, then the earlier date shall be described under task *Develop alternatives and implementation time schedule* and shall become the full compliance date.

2. The following interim effluent discharge limitations for ammonia, chloride, electrical conductivity, MBAS, and nitrite shall be effective until 28 February 2006 or when the Discharger completes construction of the Northwest WWTF, or has a direct discharge into the Sacramento River and comes into compliance, whichever is earlier:

<u>Constituents</u>	<u>Units</u>	<u>Daily Maximum</u>
Ammonia	mg/l-N	113
	lbs/day ¹	189
Chloride	mg/l	924
	lbs/day ¹	1542
Electrical Conductivity	µmhos/cm	5880
MBAS (foaming agents)	µg/l	9660
	lbs/day ¹	16
Nitrite	mg/l	15
	lbs/day ¹	25

¹ Based on a monthly average design flow of 0.2 mgd.

3. The following interim effluent discharge limitations for aluminum, iron, and manganese shall be effective until 30 June 2009 or when the Discharger is able to come into compliance, whichever is earlier:

<u>Constituents</u>	<u>Units</u>	<u>Daily Maximum</u>
Aluminum ³	µg/l	10080
	lbs/day ¹	16.8
	lbs/day ²	84
Iron	µg/l	1344
	lbs/day ¹	2.24
	lbs/day ²	11.2
Manganese	µg/l	319
	lbs/day ¹	0.53
	lbs/day ²	2.7

¹ Based on a monthly average design flow of 0.2 mgd.

² Based on a monthly average design flow of 1.0 mgd (after completion of Northwest WWTF).

³ Compliance can be demonstrated using either total, or acid-soluble (inductively coupled plasma/atomic emission spectrometry or inductively coupled plasma/mass spectrometry) analysis methods, as supported

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by USEPA's Ambient Water Quality Criteria for Aluminum document (EPA 440/5-86-008), or other standard methods that exclude aluminum silicate as approved by the Executive Officer

4. If, in the opinion of the Executive Officer, the City of Rio Vista Trilogy WWTP-Northwest WWTF fails to comply with the provisions of this Order, the Executive Officer may apply to the Attorney General for judicial enforcement.

I, THOMAS R. PINKOS, 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 9 July 2004.

THOMAS R. PINKOS, Executive Officer