

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2002-0051

REQUIRING THE CITY OF NEVADA CITY
WASTEWATER TREATMENT PLANT
TO CEASE AND DESIST
FROM DISCHARGING CONTRARY TO REQUIREMENTS

The California Regional Water Quality Control Board, Central Valley Region, (hereafter referred to as "Regional Board") finds:

1. On 26 April 2002, the Regional Board adopted Waste Discharge Requirements (WDR) Order No. R5-2002-0050, for the City of Nevada City's (Discharger) Wastewater Treatment Plant. WDR Order No. R5-2002-0050 regulates the discharge of approximately 0.43 million gallons per day (mgd) of treated domestic wastewater to Deer Creek, which is tributary to the Yuba River. The design flow of the facility is 0.69 mgd.
2. WDR Order No. R5-2002-0050 contains Effluent Limitations for ammonia, nitrite, and nitrate plus nitrite as contained in B.1 and B.2, which read in part as follows:

<u>"Constituent"</u>	<u>Units</u>	<u>Average Monthly</u>	<u>Average 4-Day</u>	<u>Average 1-Hour</u>
Ammonia (as N)	mg/l lbs/day ²	Attachment B	Attachment C	Attachment D
Nitrite (as N)	mg/l lbs/day ¹	1 5.8	-- --	-- --
Nitrate + Nitrite (as N)	mg/l lbs/day ¹	10 58	-- --	-- --

¹ Based upon a design treatment capacity of 0.69 mgd ($x \text{ mg/l} \times 8.345 \times 0.69 \text{ mgd} = y \text{ lbs/day}$)

² The mass limit (lb/day) for ammonia shall be equal to the concentration limit (from Attachments) multiplied by the design flow of 0.69 mgd and the unit conversion factor of 8.345 (see footnote 1 for equation).

3. The Discharger currently nitrifies and denitrifies its wastewater whenever possible and generally maintains the effluent ammonia concentrations below water quality criteria during periods of warm weather. However, during low temperature conditions, the current plant design and operation result in incomplete nitrification and/or denitrification of wastewater and increased effluent ammonia, nitrate, and nitrite concentrations. Failure to nitrify the wastewater would result in concentrations of ammonia, nitrite, and nitrate plus nitrite that exceed Effluent Limitations.

4. WDR Order No. R5-2002-0050 contains Effluent Limitation 4 for pH, which reads as follows:

"The discharge shall not have a pH less than 6.5 nor greater than 8.5."
5. Discharger self-monitoring reports for the period beginning 1 January 2000 and ending 31 January 2002 reported 25 occasions on which the effluent pH fell below 6.5 and 1 occasion on which the effluent pH rose above 8.5. Because the previous permit for this discharge, WDR Order No. 96-103, allowed for infrequent, short-term pH excursions, only two of these twenty-six excursions were violations.
6. Based on the above findings, this discharge represents a threatened discharge of waste in violation of WDR Order No. R5-2002-0050, Effluent Limitations for ammonia, nitrate plus nitrite, nitrite, and pH.
7. In order to consistently comply with the ammonia, nitrate plus nitrite, and nitrite Effluent Limitations, nitrification and denitrification of the wastewater are necessary.
8. In order to consistently comply with the pH Effluent Limitation, a modified pH adjustment system may be necessary.
9. In accordance with California Water Code (CWC) Section 13385(j)(3), the Regional Board finds that, based upon operational capabilities, the Discharger is not able to consistently comply with the ammonia, nitrate plus nitrite, nitrite, and pH effluent limitations. The ammonia, nitrate plus nitrite, nitrite, and pH limitations are new requirements that become applicable to the permit 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 schedules for completion of actions necessary to achieve full compliance exceed one year, interim requirements and dates for their achievement are included in this Order. This time schedule does not exceed five years. 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), and the Discharger can take reasonable measures to achieve compliance within five (5) years from the date the waste discharge requirements were required to be reviewed pursuant to Section 13380.

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. A pollution prevention plan addresses only those constituents that can be effectively reduced by source control measures. Ammonia, nitrate plus nitrite, and nitrite cannot be significantly reduced through source control measures in domestic wastewater. The low alkalinity of the source water for the Nevada City service area results in substantial

decreases in the pH of the wastewater as it flows through the treatment processes. It is impracticable and undesirable to significantly reduce pH through source control measures in domestic wastewater. Therefore, this Order does not require a pollution prevention plan.

Compliance with this Order exempts the Discharger from mandatory minimum penalties for violations of effluent ammonia, nitrate plus nitrite, nitrite, and pH limitations only, in accordance with California Water Code Section 13385(j)(3).

10. On 26 April 2002, 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 to establish a time schedule to achieve compliance with waste discharge requirements.
11. 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 Section 15321 (a)(2), Title 14, California Code of Regulations.
12. Any person adversely affected by this action of the Regional Board may petition the State Water Resources Control Board (State Board) to review the action. The petition must be received by the State Board Office of the Chief Counsel, P.O. Box 100, Sacramento, CA, 95812-0100, within 30 days of the date on which the 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 Nevada City shall cease and desist from discharging and threatening to discharge contrary to Waste Discharge Requirements Order No. R5-2002-0050, Effluent Limitations 1, 2, and 4 for ammonia, nitrate plus nitrite, nitrite, and pH.
2. The City of Nevada City shall comply with the following time schedule to assure compliance with the ammonia, nitrate plus nitrite, nitrite, and pH Effluent Limitations contained in Waste Discharge Requirements Order No. R5-2002-0050 as described in the above Findings:

<u>Task</u>	<u>Compliance Date</u>
Comply with pH Limitations	15 April 2003
Progress Report/Implementation Schedule	31 October 2002
Progress Reports ¹	30 April and 31 October of each year
Achieve Full Compliance	30 April 2007

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.

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3. Until full compliance with Waste Discharge Requirements Order No. R5-2002-0050, Effluent Limitations B.1 and B.2 is achieved, the Discharger shall operate the treatment plant in a nitrification/denitrification mode to the maximum extent practicable.
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.

I, GARY M. CARLTON, 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 26 April 2002.

for 

GARY M. CARLTON, Executive Officer