CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2008-XXXX

REQUIRING
CITY OF GRASS VALLEY
WASTEWATER TREATMENT PLANT
NEVADA 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 6 June 2003, the Regional Water Board adopted Waste Discharge Requirements (WDRs) Order No. R5-2003-0089, and Cease and Desist Order (CDO) No. R5-2003-0090 prescribing waste discharge requirements and compliance time schedules for the City of Grass Valley (hereafter Discharger) Wastewater Treatment Plant. The Discharger discharges approximately 2.1 million gallons per day (mgd) of treated domestic and industrial wastewater to Wolf Creek, which is tributary to the Bear River. The design flow is 2.78 mgd.

2. WDRs Order No. R5-2003-0089 included limits for aluminum, chloroform, cyanide, iron, copper, dibromochloromethane, dichlorobromomethane, manganese, methyl tert butyl ether (MTBE), methylene blue active substances (MBAS), nitrite, nitrate plus nitrite, and zinc as contained in Effluent Limitations section B.4, which stated in part:

Constituents	***Units***	***Monthly Average***	***Average 4-Day***	***Daily Average***	***Average 1-Hour***
Aluminum[1]	*µg/L*	--	*87*	--	*750*
	lbs/day[2]	--	*2.0*	--	*17.4*
Chloroform	*µg/L*	*1.1*	--	--	--
	lbs/day[2]	*0.026*	--	--	--
Copper, Total Recoverable	*µg/L*	*Attachment E*[5]	--	*Attachment E*[5]	--
	lbs/day[2]	[6]	--	[6]	--
Cyanide, Total Recoverable	*µg/L*	*3.6*[5]	--	*9.6*[5]	--
	lbs/day[2]	*0.085*	--	*0.22*	--
Dibromochloromethane	*µg/L*	*0.41*	--	*1.0*	--
	lbs/day[2]	*0.0095*	--	*0.024*	--
Dichlorobromomethane	*µg/L*	*0.56*	--	*1.1*	--
	lbs/day[2]	*0.013*	--	*0.026*	--
Iron, Total Recoverable	*µg/L*	*300*[5]	--	--	--
	lbs/day[7]	*20*[7]	--	--	--
Manganese, Total Recoverable	*µg/L*	*50*[5]	--	--	--
	lbs/day[7]	*3*[7]	--	--	--
Methyl tert butyl ether (MTBE)	*µg/L*	*5*	--	--	--
	lbs/day[2]	*0.1*	--	--	--

Constituents	Units	Monthly Average	Average 4-Day	Daily Average	Average 1-Hour
Methylene blue active substances (MBAS)	*µg/L*	*500*[5]	--	--	--
	lbs/day[2]	*0.1*	--	--	--
Nitrate (as N)	*mg/L*	*10*	--	--	--
	lbs/day[2]	*1*	--	--	--
Nitrite (as N)	*mg/L*	*20*	--	--	--
	lbs/day[2]	*10*	--	--	--
Zinc, Total Recoverable	*µg/L*	*Attachment G*[5]	--	*Attachment G*[5]	--
	lbs/day[2]	[6]	--	--	--

[1] *Acid-soluble or total*
[2] *Based on design treatment capacity of 2.78 mgd*
[5] *To be ascertained by a 24-hour composite*
[6] *The mass limit (lbs/day) shall be equal to the concentration limit (from corresponding Attachment, for corresponding period) multiplied by the design flow of 2.78 mgd and the unit conversion factor 8.345 and divided by 1000 µg/mgEffective 1 March 2008*
[7] *Based on design equalized peak flow treatment capacity of 7 mgd*

3. WDRs Order No. R5-2003-0089 included a schedule for achieving compliance with the Effluent Limitations for copper, cyanide, dibromochloromethane, dichlorobromomethane, and zinc by 1 March 2008. The WDRs expired on 1 June 2008, however the Discharger submitted a complete Report of Waste Discharge by 3 December 2007, and therefore the permit is administratively extended.

4. CDO No. R5-2003-0090 included a schedule for achieving compliance with the Effluent Limitations for aluminum, chloroform, iron, manganese, MTBE, MBAS, nitrite, and nitrate plus-nitrite by 1 March 2008.

5. On 6 December 2007, the Regional Water Board adopted Cease and Desist Order (CDO) No. R5-2007-0163 which provided additional time for the Discharger to comply with final effluent limitations. The Regional Water Board found that the Discharger was not able to consistently comply with the effluent limitations for aluminum, chloroform, copper, cyanide, dibromochloromethane, dichlorobromomethane, manganese, nitrate-plus-nitrite, and zinc. The schedules for completing the actions necessary to achieve full compliance would exceed the expiration date of the WDR (1 June 2008) and would exceed the 1 March 2008 compliance dates in the WDR and CDO. Additional time was necessary to complete site-specific studies, plant improvements, and litigation that will improve the quality and consistency of the effluent and improve compliance with effluent limitations. These limitations were new requirements that became 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.

5. On **<DATE>**, the Regional Water Board adopted Order No. R5-2008-XXXX rescinding Order No. R5-2003-0089 and prescribing revised waste discharge requirements for the Facility. Order No. R5-2008-XXXX contains requirements that read, in part, as follows:

"IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point No. 001

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 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 Table 6:

Table 6. Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Ammonia (as N)	mg/L	0.6	--	2.1	--	--
	lbs/day[1]	14	--	49	--	--
Chloro-dibromomethane	µg/L	0.41	--	0.97	--	--
	lbs/day[1]	0.0095	--	0.022	--	--
Copper, Total Recoverable	µg/L	7.2	--	13	--	--
	lbs/day[1]	0.17	--	0.3	--	--
Cyanide, Total Recoverable	µg/L	3.6	--	9.6	--	--
	lbs/day[1]	0.085	--	0.22	--	--
Dichloro-bromomethane	µg/L	0.56	--	1.1	--	--
	lbs/day[1]	0.013	--	0.026	--	--
Nitrate + Nitrite (as N)	mg/L	10	--	--	--	--
	lbs/day[1]	232	--	--	--	--
Zinc, Total Recoverable	µg/L	65	--	143	--	--
	lbs/day[1]	1.5	--	3.3	--	--

[1] *Based on a design flow of 2.78 mgd.*

Manganese. *Effluent manganese shall not exceed 50 µg/L as an annual average.*

6. The Discharger has completed several efforts to attain compliance, including a pretreatment program and implementation of a pollution prevention program, as attempts to reduce overall inflow of contaminants into the treatment plant. The Discharger has also studied the effects of effluent hardness on aquatic life beneficial uses, and completed Water Effects Ratio (WER) studies for copper and zinc and translator studies for copper, lead, and zinc. However, additional data and information must be obtained from the Discharger prior to either the WER or translator studies being approved. The information and data needs have been provided to the Discharger. The Discharger is planning to construct major plant improvements to add ultraviolet light (UV) disinfection and to upgrade the biological nitrogen removal process. The Discharger is also involved in litigation with Newmont USA Limited regarding abandoned mine drainage from the Drew Tunnel, which is a source of aluminum and manganese entering the treatment plant. The Discharger's ability to comply with

manganese effluent limitations by the 1 March 2010 compliance date in this Order depends on timely action by Newmont to participate in the resolution of the mine discharge. Ongoing litigation may delay the Discharger's compliance with manganese final limitations and modification to the March 2010 compliance date may need to be considered in the future as more information becomes available.

7. Section 13301 of the California Water Code (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.*"

8. In accordance with California Water Code (CWC) Section 13385(j)(3), the Regional Water Board finds that the Discharger is not able to consistently comply with the effluent limitations for ammonia, copper, cyanide, dibromochloromethane, dichlorobromomethane, manganese, zinc, and nitrate plus nitrite. The schedules for completing the actions necessary to achieve full compliance exceed adoption date of this Order. Additional time is necessary to complete site-specific studies, plant improvements, and litigation that will improve the quality and consistency of the effluent and improve compliance with effluent limitations. New time schedules are necessary in a CDO for all the constituents listed above. These limitations were new requirements that became 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.

9. CWC section 13385(h) and (i) require the Regional Water Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limitations. CWC section 13385(j) 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.*"

10. Compliance with this Order exempts the Discharger from mandatory minimum penalties for violations of the effluent limitations for ammonia, copper, cyanide, dibromochloromethane, zinc, and dichlorobromomethane in accordance with CWC section 13385(j)(3). CWC section 13385(j)(3) requires the preparation and

implementation of a pollution prevention plan (PPP) pursuant to section 13263.3 of the CWC. CDO No. R5-2007-0163 required the Discharger to submit a PPP for copper, cyanide, dibromochloromethane, zinc, and dichlorobromomethane This Order requires the Discharger to update and implement the existing PPPs for these parameters.

PPPs have not been previously required for ammonia. However, because the Discharger has already commenced upgrades to the wastewater treatment plant in order to comply with the effluent limitations for these parameters, and because the time schedule for these parameters requires compliance in just over a year, PPPs are not required for these parameters.

11. Because CDO No. R5-2003-0090 provided the Discharger with almost 5 years to comply with effluent limitations for manganese, and nitrate-plus-nitrite, the exception from mandatory minimum penalties pursuant to CWC section 13385(j)(3) does not apply for these constituents. Pursuant to CWC section 13263.3(d)(1)(D), a pollution prevention plan was required in CDO No. R5-2007-0163 for manganese, and nitrate-plus-nitrite in order to effectively reduce the effluent concentrations by source control measures. This Order requires the Discharger to update and implement the existing PPPs for these parameters.

12. 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 their achievement. The time schedules do not exceed 5 years.This Order includes interim requirements and dates for their achievement. The time schedules do not exceed 5 years.

13. The compliance time schedule in this Order includes interim effluent limitations for ammonia, copper, cyanide, chlorodibromomethane, dichlorobromomethane, manganese, zinc, and nitrate plus nitrite. Interim effluent limitations typically consist of a daily effluent concentration derived using sample data provided by the Discharger. Existing interim average daily limitations for copper, cyanide, dibromochloromethane, dichlorobromomethane, manganese, zinc, and nitrate plus nitrite as established in CDO Order No. R5-2007-0163, are included in this Order. New interim average daily limitations for ammonia, based on effluent monitoring data demonstrating actual treatment plant performance from 1 June 2003 to 31 March 2008, are also included in this Order. To maintain consistency with interim limitations established in CDO No. R5-2007-0163, interim limitations for all constituents described above are established as average daily effluent limitations. In developing the interim limitations, when 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 (*Basic Statistical Methods for Engineers and Scientists, Kennedy and Neville, Harper and Row*). When there are less than ten 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 ten 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 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 ten sampling points for a constituent, interim limitations are based on 3.11 times the maximum observed effluent concentration to obtain the daily interim limitation (TSD, Table 5-2). If the statistically-projected interim limitation is less than the maximum observed effluent concentration, the interim limitation is established as the maximum observed concentration.

14. 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.

15. This Order modifies CDO No. R5-2007-0163 in the following ways: it establishes interim effluent limitations based on existing interim limitations or demonstrated plant performance for ammonia; and it provides deadlines for the Discharger to cease and desist from violating an existing order. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.) ("CEQA") for the following reasons, each of which is an independent basis for exemption.

    - This Order does not have the potential to cause a significant impact on the environment (Title 14 CCR section 15061(b)(3)) and is not a "project" as defined by CEQA. 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. This Order imposes requirements that will maintain the CEQA baseline while the Discharger attains compliance with the existing requirements. The PPP will identify source control measures in order to meet the preexisting effluent limitations. Since the compliance schedule is as short as possible and any actions to comply with the existing requirements are already required, this Order does not allow any environmental impacts to occur; those impacts would occur regardless of this Order.

    - Which source control measures the Discharger will identify or select for implementation as a result of source control review in the PPP is indefinite and uncertain. In addition, the Discharger is required to study alternatives and potential adverse impacts in its PPP, under Water Code Section 13263.3(d)(2).

    - This Order is exempt from CEQA under Water Code Section 13389, since the adoption or modification of a NPDES Permit for an existing source is exempt and

- this Order only serves to implement WDRs Order No. R5-2008-XXXX, which is an NPDES permit.

- This Order is exempt pursuant to CEQA Guidelines Section 15321. The discharges subject to this Order are not "hazardous materials." Even assuming for argument's sake that the facility discharges waste that could be considered "hazardous materials," it is questionable whether the Cortese List exception applies to enforcement orders intended to eliminate such discharges. Rather, the exception apparently was intended to apply only to permits for development projects located on a listed site. Also, the discharges occur offsite and do not occur at the site itself.

16. The Discharger has complied with the California Environmental Quality Act by preparing a mitigated negative declaration for the wastewater treatment plant improvement project, which was circulated through the State Clearinghouse and adopted by the City of Grass Valley City Council. The City Council approved the Project on August 28, 2007, and filed a Notice of Determination with the Governor's Office of Planning and Research and the Nevada County Clerk on August 29, 2007. The Regional Water Board has considered the mitigated negative declaration, which did not identify any environmental impacts to water quality except mitigated erosion potential during construction. Construction is scheduled to be completed by December 2009.

17. 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. R5-2007-0163 is rescinded, and, pursuant to CWC Section 13301:

1. The City of Grass Valley shall comply with the following time schedule to ensure compliance with Order No. R5-2003-0089 effluent limitations for ammonia, copper, cyanide, dibromochloromethane, dichlorobromomethane, manganese, zinc, and nitrate plus nitrite:

Task	**Compliance Date**
a. Update and implement Pollution Prevention Plan as specified in CWC Section 13263.3 for copper, cyanide, chlorodibromomethane, dichlorobromomethane, manganese, zinc, and nitrate plus nitrite.	**90 Days after the effective date of this Order**
b. Complete construction of plant upgrades.	**1 December 2009**
c. Demonstrate compliance with the effluent limitations for ammonia, copper, cyanide, chlorodibromomethane, dichlorobromomethane, manganese, zinc, and nitrate plus nitrite	**1 March 2010**
d. Submit Progress Reports[1].	**1 January 2009 and 1 July 2009**

Task **Compliance Date**

[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 shall be effective immediately, and shall remain in effect through 1 March 2010, or when the Discharger is able to come into compliance with the final effluent limitation, whichever is sooner.

Parameter	Units	Effluent Limitations	
		Monthly Median	Maximum Daily
Priority Pollutants			
Copper, Total Recoverable	µg/L	--	13
	lbs/day	--	0.30
Cyanide, Total	µg/L	--	15
	lbs/day	--	0.35
Chlorodibromomethane	µg/L	--	2.47
	lbs/day	--	0.057
Dichlorobromomethane	µg/L	--	14
	lbs/day	--	0.33
Zinc, Total Recoverable	µg/L	--	110
	lbs/day	--	2.61
Non-Conventional Pollutants			
Ammonia Nitrogen, Total (as N)	mg/L	--	13
Manganese	µg/L	--	249
Nitrate plus Nitrite, Total (as N)	mg/L	--	17
Total Coliform Organisms	MPN/100 mL	2.2	23

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 **<Date>**.

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PAMELA C. CREEDON, Executive Officer