

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

TIME SCHEDULE ORDER NO. R5-2011-0073

REQUIRING CITY OF WILLOWS  
WILLOWS WASTEWATER TREATMENT PLANT  
GLENN COUNTY

TO COMPLY WITH REQUIREMENTS PRESCRIBED IN ORDER NO. R5-2011-0072  
(NPDES PERMIT NO. CA0078034)

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

1. On 13 October 2011 the Central Valley Water Board adopted Waste Discharge Requirements (WDR) Order No. R5-2011-0072, NPDES Permit No. CA0078034, prescribing waste discharge requirements for the City of Willows (hereinafter Discharger) at the Willows Wastewater Treatment Plant (hereafter Facility), Glenn County.
2. WDR Order No. R5-2011-0072 contains Final Effluent Limitations IV.A.1.a., which reads, in part, as follows:

Parameter	Units	Effluent Limitations			
		Average Monthly	Average Weekly	Maximum Daily	Other
Biochemical Oxygen Demand 5-day @ 20°C	mg/L <sup>a</sup>	10	15	30	--
	lbs/day <sup>b</sup>	100	150	300	--
Total Suspended Solids	mg/L <sup>a</sup>	10	15	30	--
	lbs/day <sup>b</sup>	100	150	300	--
Total Residual Chlorine	mg/L			0.02 (1-hr average)	0.01 (4-Day Average)
Total Coliform Bacteria	MPN/100mL			23	2.2 (7-Day Median)
Nitrate (as N)	mg/L	10			
Ammonia <sup>c</sup>	mg/L	1.30 (Ag Drain C), 0.63 (GCID)		2.61 (Ag Drain C), 1.27 (GCID)	--
	lbs/day <sup>b</sup>	13.0 (Ag Drain C), 6.33 (GCID)		26.11 (Ag Drain C), 12.70 (GCID)	--
Ammonia <sup>d</sup>	mg/L	1.43 (Ag Drain C), 0.77 (GCID)		2.87 (Ag Drain C), 1.55 (GCID)	--
	lbs/day <sup>b</sup>	14.32 (Ag Drain C), 7.75 (GCID)		28.74 (Ag Drain C), 15.55 (GCID)	--
Electrical Conductivity					845 (Annual Average)
Dibromochloromethane	ug/L	0.41		0.82	--
Dichlorobromomethane	ug/L	0.56		1.13	--

<sup>a</sup> To be ascertained by a 24-hour composite

<sup>b</sup> Based upon a design treatment capacity of 1.2 mgd

<sup>c</sup> For the period of May 1 through October 31

<sup>d</sup> For the period of November 1 through April 30

3. The effluent limitations specified in Order No. R5-2011-0072 for Dibromochloromethane, Dichlorobromomethane and Nitrate are based on implementation of the California Toxics Rule.
4. Federal regulations, 40 CFR 122.44 (d)(1)(i), require that NPDES permit effluent limitations must control all pollutants which are or may be discharged at a level which will cause or have the reasonable potential to cause or contribute to an in-stream excursion above any State water quality standard, including any narrative criteria for water quality. Beneficial uses, together with their corresponding water quality objectives or promulgated water quality criteria, can be defined per federal regulations as water quality standards.
5. Immediate compliance with the final effluent limitations contained in Order No. R5-2011-0072 for Dibromochloromethane, Dichlorobromomethane and Nitrate at Discharge Point D-001 and D-002 is not possible. The Discharger has submitted a feasibility analysis indicating it would take 4 years and 9 months to complete upgrades to the plant to achieve compliance with the new final effluent limits. The Clean Water Act and the California Water Code authorize time schedules for achieving compliance. The following table summarizes the effluent monitoring data obtained from March 2007 through August 2011 for Dibromochloromethane, Dichlorobromomethane and Nitrate:

Parameter	Units	MEC	Mean	# of Samples	# of Non-Detects
Dibromochloromethane	ug/L	5.30	1.92	12	2
Dichlorobromomethane	ug/L	20.20	9.03	12	2
Nitrate (as N)	mg/L	20.0	17.5	9	0

6. On 24 February 2011, the Discharger submitted justification for a compliance schedule for Dibromochloromethane, Dichlorobromomethane and Nitrate. For compliance with the final effluent limitations for Dibromochloromethane, Dichlorobromomethane and Nitrate, the Discharger anticipates that additional time is necessary for plant upgrades to eliminate the discharge to surface waters in the next five years. The Discharger's submittal included: discussion of current plant processes and a detailed schedule for achieving full compliance.
7. On 11 July 2011, the Discharger submitted a request for additional time to begin a Basin Plan amendment study to de-designate the MUN beneficial use of the receiving water. If de-designation of the municipal beneficial use is not adopted through the Basin Plan amendment process, the Discharger will seek funding sources that would assist them in making the necessary process changes to comply with the final effluent limitations. Additionally, the Discharger would conduct a rate analysis and an associated rate increase, if necessary, to cover the costs for installation and maintenance to operate a new system that will achieve the final effluent limitations.
8. This Order provides a time schedule for the Discharger to develop, submit and implement methods of compliance, which includes a possible Basin Plan Amendment to update and implement the pollution prevention plan, and construct the necessary treatment plant upgrades to meet the final effluent limitations.

9. 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.

10. CWC subsections 13385(h) and (i) require the Central Valley Water Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limitations. CWC section 13385(j)(3) provides protection from mandatory minimum penalties for violations of an effluent limitation when:

... 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 or 13308, if all of the following requirements are met:

(A) The cease and desist order or time schedule is issued on or after July 1, 2000, and specifies the actions that the discharger is required to take in order to correct the violations that would otherwise be subject to subdivisions (h) and (i).

(B) The regional board finds that, for one of the following reasons, the discharger is not able to consistently comply with one or more of the effluent limitations established in the waste discharge requirements applicable to the waste discharge:

(i) The effluent limitation is a new, more stringent, or modified regulatory requirement that has become applicable to the waste discharge after the effective date of the waste discharge requirements and after July 1, 2000, new or modified control measures are necessary in order to comply with the effluent limitation, and the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.

(C) The regional board establishes a time schedule for bringing the waste discharge into compliance with the effluent limitation that is as short as possible, taking into account the technological, operational, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the effluent limitation. For the purposes of this subdivision, the time schedule may not exceed five years in length.... If the time schedule exceeds one year from the effective date of the order, the schedule shall include interim requirements and the dates for their achievement. The interim requirements shall include both of the following:

(i) Effluent limitations for the pollutant or pollutants of concern.

(ii) Actions and milestones leading to compliance with the effluent limitation.

(D) The discharger has prepared and is implementing in a timely and proper manner, or is required by the regional board to prepare and implement, a pollution prevention plan pursuant to section 13263.3.

11. The time schedule order satisfies provisions of CWC section 13385(j)(3) as follows:
- 13385(j)(3)(A): This time schedule order is being issued after July 1, 2000, and specifies actions that the Discharger must take to correct the violations that would be subject to enforcement actions (see Compliance Time Schedule Table on Page 7).
  - 13385(j)(3)(B)(i): This time schedule order includes new effluent limits that become effective after the July 1, 2000 date, and may require new or modified control measures in order to comply with the final effluent limits. Additionally, the Discharger has provided a feasibility study indicating it would take approximately 4 years and 9 months to conduct the planning, funding, and constructing improvements to the existing plant to meet the new final effluent limitations. Therefore the new modifications cannot be designed, installed, or put into operation within 30 calendar days.
  - 13385(j)(3)(C): The Discharger has provided a feasibility study that indicates it will take approximately 4 years and 9 months to upgrade the existing plant to meet the new final effluent limitations. To meet the new final limits, the Discharger will have to change from a wet chemistry (chlorination/dechlorination) to some other type of disinfection process, which will take a considerable amount of time (obtain funding, planning and construction). This timeframe is as short as possible, considering the major upgrades the plant will have to complete to meet the final effluent limitations.
  - 13385(j)(3)(C)(i): This time schedule order contains effluent limits for the constituents of concern which are Dibromochloromethane, Dichlorobromomethane and Nitrate.
  - 13385(j)(3)(C)(ii): This time schedule order contains milestones and actions which lead to compliance with the final effluent limitations (See the Compliance Time Schedule Table on Page 7).
  - 13385(j)(3)(D): This time schedule order contains a requirement that the Discharger must submit and implement a pollution prevention plan within 6 months after adoption of the time schedule order.
12. CWC section 13385(h) and (i) require the Central Valley Water Board to impose mandatory minimum penalties 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.”*

13. Compliance with this Order exempts the Discharger from mandatory penalties for violations of the final effluent limitations for Dibromochloromethane, Dichlorobromomethane and Nitrate, in accordance with CWC section 13385(j)(3). 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. Therefore, a pollution prevention plan will be necessary for Dibromochloromethane, Dichlorobromomethane and Nitrate in order to effectively reduce the effluent concentrations by source control measures.
14. 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.
15. The compliance time schedule in this Order includes interim performance-based effluent limitations for Dibromochloromethane, Dichlorobromomethane and Nitrate. Interim effluent limitations consist of a maximum daily effluent concentration derived using sample data provided by the Discharger demonstrating actual treatment plant performance. 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, 3<sup>rd</sup> Edition, January 1986). Where actual sampling shows an exceedance of the proposed 3.3 standard deviation limit, the maximum detected concentration has been established as the interim limitation. 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 (MEC) to obtain the daily interim limitation (TSD, Table 5-2) and 2.13 times the maximum MEC to obtain the average monthly interim limitation (assuming one sample per month). If the statistically projected interim limitation is less than the maximum observed effluent concentration, the interim limitation is established as the maximum observed concentration. The following table summarizes the calculation of the interim effluent limitation for Dibromochloromethane, Dichlorobromomethane and Nitrate:

Parameter	Units	MEC	Mean	Standard Deviation	Number of Samples with Detections	Interim Limitation (Average Monthly)	Interim Limitation (Maximum Daily)
Dibromochloromethane	ug/L	5.30	1.92	1.48	10	11.29	16.48
Dichlorobromomethane	ug/L	20.20	9.03	5.79	10	43.03	62.82
Nitrate (as N)	mg/L	20.0	17.5	1.98	9	42.6	NA

16. 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 limitations can be achieved.
17. On 13 October 2011, 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.
18. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.) (“CEQA”), under Water Code Section 13389, since any adoption or modification of a NPDES Permit for an existing source is exempt and this order only serves to implement such a NPDES permit. This Order is also exempt from CEQA in accordance with Section 15321(a)(2), Title 14, California Code of Regulations. This Order is not subject to the limitations of Government Code section 65962.5(c)(3) [Cortese List] on use of categorical exemptions because it does not involve the discharge of “hazardous” materials as used in that statute, but rather involves the discharge of domestic sewage. In addition, adoption of this Order is not subject to CEQA because this Order does not have the potential to cause a significant impact on the environment (Title 14 CCR section 15061(b)(3)) as it is intended to enforce preexisting requirements to improve the quality of ongoing discharges that are part of the CEQA “baseline”. Any plant upgrades or replacement are the result of WDRs Order No. R5-2011-0072 and not this Order.
19. 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](http://www.waterboards.ca.gov/public_notices/petitions/water_quality)

or will be provided upon request.

20. In the event the selected alternative requires additional review under the California Environmental Quality Act, the Discharger shall conduct required review and obtain appropriate approval prior to initiating construction.

**IT IS HEREBY ORDERED THAT:**

1. The Discharger shall comply with the following time schedule to ensure compliance with the final effluent limitations for Dibromochloromethane, Dichlorobromomethane and Nitrate, contained in WDR Order No. R5-2011-0072 as described in the above Findings:

**COMPLIANCE TIME SCHEDULE TABLE**

<b>Task</b>	<b>Compliance Date</b>
Submit and implement a Pollution Prevention Plan (PPP) <sup>1</sup> pursuant to CWC section 13263.3 for Dibromochloromethane, Dichlorobromomethane and Nitrate	6 Months after Adoption Date of this Order
Submit Initial Workplan for Proposed BPA	12 Months after Adoption Date of this Order
Progress Reports <sup>2</sup>	Semi Annually (1 March and 1 September)
Submit Formal Decision Regarding Continuance of BPA Approval Process or Initiation of Compliance Project Feasibility Study (i.e. Facility Upgrade, Relocation of Discharge to Colusa Basin Drain, Other)	4 Years After Adoption Date of this Order
Achieve compliance with applicable final effluent limits	5 years after Adoption Date of this Order
<sup>1</sup> The Discharger shall implement a new Pollution Prevention Plan (PPP) for Dibromochloromethane, Dichlorobromomethane and Nitrate and shall meet the requirements specified in California Water Code Section 13263. <sup>2</sup> The progress reports for Dibromochloromethane, Dichlorobromomethane and Nitrate 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 with the final effluent limitations.	

2. The following interim maximum daily effluent limitations shall be effective immediately in lieu of the final effluent limitations for Dibromochloromethane, Dichlorobromomethane and Nitrate contained in Order No. R5-2011-0072. The final effluent limitations at Discharge Point No. D-001 and D-002 for Dibromochloromethane, Dichlorobromomethane and Nitrate contained in Order No. R5-2011-0072 shall become effective five years after the adoption of this Order, or when the Discharger is able to come into compliance, whichever is sooner.

Parameter	Units	Interim Average Monthly Effluent Limitation	Interim Maximum Daily Effluent Limitation
Dibromochloromethane	µg/L	11.29	16.48
Dichlorobromomethane	µg/L	43.03	62.82
Nitrate (as N)	mg/L	42.6	NA

3. For the compliance schedule 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 Central Valley Water Board by letter when it returns to compliance with the time schedule.

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may take additional enforcement action, including but not limited to, the application to the Attorney General for judicial enforcement or issuance of a complaint for Administrative Civil Liability.

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 13 October 2011.

*Original signed by*

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PAMELA C. CREEDON, Executive Officer