

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

TIME SCHEDULE ORDER R5-2014-0159  
REQUIRING  
CITY OF DAVIS  
WASTEWATER TREATMENT PLANT  
YOLO COUNTY

TO COMPLY WITH WASTE DISCHARGE REQUIREMENTS PRESCRIBED  
IN ORDER R5-2013-0127 AND SUBSEQUENTLY ADOPTED ORDERS  
(NPDES PERMIT NO. CA0079049)

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

1. On 4 October 2013, the Central Valley Water Board adopted Waste Discharge Requirements (WDR) Order R5-2013-0127, NPDES Permit No. CA0079049 prescribing waste discharge requirements for the City of Davis (hereafter Discharger) Wastewater Treatment Plant (hereafter Facility). On 4 October 2013, the Central Valley Water Board also adopted Time Schedule Order (TSO) R5-2013-0128 to provide a time schedule and interim limits, in part, for aluminum and copper. Also on 4 October 2013, the Central Valley Water Board amended existing TSO R5-2010-0029-01 to reference WDR Order R5-2013-0127.
2. WDR Order R5-2013-0127 contains, in part, the following cyanide and selenium final effluent limitations for Discharge Point 001 that become effective 1 February 2015.

**Table 6. Effluent Limitations – Discharge Point No. 001**

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Cyanide	µg/L	3.8	--	8.1	--	--
Selenium, Total Recoverable	µg/L	4.4	--	7.1	--	--
	lbs/day <sup>2</sup>	0.28	--	0.44	--	--

<sup>2</sup> Based on an average dry weather flow of 7.5 MGD.

3. WDR Order R5-2013-0127 contains, in part, the following copper and selenium final effluent limitations for Discharge Point 002 that became effective 30 September 2014.

**Table 7. Effluent Limitations – Discharge Point No. 002**

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Copper, Total Recoverable	µg/L	16		33		
Selenium, Total Recoverable	µg/L	4.5	--	6.9	--	--
	lbs/day <sup>2</sup>	0.28	--	0.43	--	--

<sup>2</sup> Based on an average dry weather flow of 7.5 MGD.

4. On 25 October 2007, the Central Valley Water Board adopted WDR Order R5-2007-0132 that contained interim effluent limitations for cyanide and selenium, which were in effect until 18 May 2010. The Discharger could not comply with the final cyanide and selenium effluent limits in Order R5-2007-0132, therefore, the Central Valley Water Board adopted TSO R5-2010-0029 on 18 March 2010 to provide a time schedule for the Discharger to comply with final limits for cyanide and selenium by 1 February 2015.
5. The Central Valley Water Board amended WDR Order R5-2007-0132 on 5 February 2009, and amended WDR Order R5-2007-0132 a second time (WDR Order R5-2007-0132-02) on 23 September 2010, to include new final copper effluent limits at Discharge Point 002. On 23 September 2010, the Central Valley Water Board also amended TSO R5-2010-0029 to include a time schedule for the Discharger to comply with the new final copper limits at Discharge Point No. 002 by 30 September 2014. TSO R5-2010-0029-01 was amended a second time (R5-2010-0029-02) on 4 October 2013, to reference WDR Order R5-2013-0127.

#### **Need for Time Schedule Extension and Legal Basis**

6. On 25 August 2014, the Discharger submitted a request and justification to extend the time schedules in TSO R5-2010-0029-02 for copper, cyanide, and selenium. The Discharger's submittal described in Findings 7 through 9 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 the compliance projects cannot be completed in time to meet full compliance with the final copper effluent limitations at Discharge Points 001 and 002 by 30 September 2014, the final cyanide effluent limitations at Discharge Point 001 by 1 February 2015, and the final selenium effluent limitations at Discharge Points 001 and 002 by 1 February 2015.
7. The Discharger has conducted source identification studies that have estimated up to 25% of the influent copper concentrations may be attributed to discharge from car washing facilities. Therefore, the Discharger has performed copper reduction activities targeting car wash facilities. The Discharger has also established Best Management Practices (BMPs) for interceptors and has increased cleanout frequencies. Currently, additional control mechanisms for this source are being evaluated. Furthermore, the Discharger plans to conduct a study to establish a site-specific metals translator for copper at Discharge 002, which could affect the water quality-based effluent limits for copper. The Discharger is in the process of upgrading the Facility to provide tertiary treatment facilities and conventional secondary treatment facilities that will replace the overland flow system. Cleaning the overland flow system, which is necessary once every five years, disturbs years of sediment buildup and has been determined to be the main source of effluent copper. The Facility upgrades are expected to be online by 25 October 2017.

8. The Discharger has made efforts to identify the source of cyanide in the effluent discharge by studying preservation techniques, checking for interferences from other constituents, and assessing the stability of cyanide in preserved samples at different holding times. The results of the Discharger's efforts have not been conclusive. Studies from other treatment plants have concluded that cyanide is produced in the chlorine disinfection process and artificially high cyanide levels may be due to interferences in sample preservation. The Discharger is in the process of upgrading the Facility to provide tertiary treatment facilities. The Discharger plans to conduct additional hold time studies for cyanide following the Facility upgrades. The Facility upgrades are expected to be online by 25 October 2017. The Discharger requested additional time to complete the hold time studies for cyanide.
9. The source of selenium in the Discharger's influent is primarily due to the high levels of selenium contained in the municipal water supply. The municipal water supply for the City of Davis is primarily from groundwater sources. The average selenium concentration in the groundwater is 7.4 µg/L. The Discharger determined that the best method for lowering the level of selenium in the effluent is to obtain a new municipal water supply from surface water. The average selenium concentration in the surface water is approximately 0.23 µg/L. The change from groundwater to surface water will significantly reduce the influent concentration of selenium to the Facility. As a joint project with the City of Woodland, construction of the new surface water supply facility began in April 2014. The schedule shows that the new surface water supply will be delivered to the Discharger by September 2016 and therefore, compliance with selenium final effluent limits in October 2017.
10. Immediate compliance with the final effluent limitations for copper, cyanide, and selenium is not possible or practicable. The Clean Water Act and the California Water Code authorize time schedules for achieving compliance.

### **Mandatory Minimum Penalties**

11. California Water Code (Water Code) sections 13385(h) and (i) require the Central Valley Water Board to impose MMPs upon dischargers that violate certain effluent limitations. Water Code 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 or 13308, if all the [specified] requirements are met...for the purposes of this subdivision, the time schedule may not exceed five years in length..."*
12. Per the requirements of Water Code section 13385(j)(3), the Central Valley Water Board finds that:
  - a. This Order specifies the actions that the Discharger is required to take in order to correct the violations that would otherwise be subject to Water Code section 13385(h) and (i).
  - b. To comply with final effluent limitations for selenium, the Discharger is constructing a new municipal surface water supply project to improve the municipal water supply.

Construction of the project began in April 2014 and the new supply is expected to be available in September 2016. The Discharger has requested additional time to comply with final effluent limitations in order to finish construction of the new surface water supply project and evaluate the effectiveness of the new water supply on selenium influent and effluent concentrations.

- c. To comply with final effluent limitations for cyanide, the Discharger is conducting hold time studies to analyze cyanide sampling methods and is constructing a Facility upgrade project. Construction is scheduled to begin in October 2014 and the secondary and tertiary facilities will be completed in October 2017. The Discharger has requested additional time following the completion of secondary and tertiary facilities in order to complete additional hold time studies on the effluent from the new Facility and implement additional source control measures as necessary.
  - d. To comply with final effluent limitations for copper, the Discharger is constructing a Facility upgrade project and implementing source control measures. Construction is scheduled to begin in October 2014 and the secondary and tertiary facilities will be completed in October 2017. The Discharger has requested additional time to comply with final effluent limitations in order to finish construction of the Facility upgrade project and evaluate the effectiveness of the new facilities on copper influent and effluent concentrations.
  - e. This Order establishes time schedules to bring the waste discharge into compliance with the final effluent limitations 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 final effluent limitations. The Central Valley Water Board finds, as described in previous findings in this Order, that the Discharger has demonstrated due diligence and is making diligent progress to bring the waste discharge into compliance with final effluent limitations.
13. By statute, a Cease and Desist Order or Time Schedule Order may provide protection from MMPs for no more than five years.
  14. Per the requirements of Water Code Section 13385(j)(3)(C)(ii)(II) following a public hearing, and upon a showing that the Discharger is making diligent progress toward bringing the waste discharge into compliance with the effluent limitation, the Central Valley Water Board may extend the time schedule for an additional five years beyond the initial five years, if the Discharger demonstrates that the additional time is necessary to comply with the effluent limitation.
  15. Compliance with this Order exempts the Discharger from MMPs for violations of the final effluent limitations found in WDR Order R5-2013-0127, or subsequently adopted WDR Order, as follows:

- a. Copper: Previous TSO R5-2010-0029-02 provided protection from MMPs for copper at Discharge Point 002 from 23 September 2010 through 30 September 2014. This Order provides protection from MMPs for copper at Discharge Point 002 for additional time, as allowed by Water Code Section 13385(j)(3)(C)(ii)(II), from 5 December 2014 through 24 October 2017.
  - b. Cyanide: Previous WDR Order R5-2007-0132 included a compliance schedule and interim effluent limitations for cyanide at Discharge Point 001. Previous TSO R5-2010-0029-02 provides protection from MMPs for cyanide at Discharge Point 001 from 18 March 2010 until 5 December 2014. This Order provides protection from MMPs for cyanide at Discharge Point 001 for additional time, as allowed by Water Code Section 13385(j)(3)(C)(ii)(II), from 5 December 2014 through 24 October 2019.
  - c. Selenium: Previous WDR Order R5-2007-0132 included a compliance schedule and interim effluent limitations for selenium at Discharge Points 001 and 002. Previous TSO R5-2010-0029-02 provides protection from MMPs for selenium at Discharge Points 001 and 002 from 18 March 2010 until 5 December 2014. This Order provides protection from MMPs for selenium at Discharge Points 001 and 002 for additional time, as allowed by Water Code Section 13385(j)(3)(C)(ii)(II), from 5 December 2014 through 24 October 2017.
16. In accordance with Water Code section 13385(j)(3), the total length of protection from MMPs for copper, cyanide, and selenium does not exceed ten years from the date the effluent limitations became applicable to the waste discharge.
  17. The previously established interim effluent limitations contained in R5-2010-0029-02 for copper, cyanide, and selenium are based on the treatment plant performance and are carried forward in this Order.
  18. The Central Valley Water Board finds that the Discharger can maintain compliance with the interim effluent limitations included in this Order. Interim effluent limitations are established when compliance with the final effluent limitations cannot be achieved by the existing Facility. 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 effluent limitations, however, establish an enforceable ceiling concentration until compliance with the final effluent limitation can be achieved.
  19. If an interim effluent limit contained in this Order is exceeded, then the Discharger is subject to MMPs for that particular exceedance as it will no longer meet the exemption in Water Code 13385(j)(3). It is the intent of the Central Valley Water Board that a violation of an interim monthly effluent limitation subjects the Discharger to only one MMP for that monthly averaging period. In addition, a violation of an interim daily maximum effluent limit subjects the Discharger to one MMP for the day in which the sample was collected.

### Other Regulatory Requirements

20. California Water Code 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.”*
21. California Water Code section 13267 states in part: *In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.*
22. The Discharger owns and operates the wastewater treatment facility which is subject to this Order. The technical and monitoring reports required by this Order are necessary to determine compliance with the requirements in WDR Order R5-2013-0127 and with this Order.
23. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.) (“CEQA”) pursuant to Water Code section 13389, since the adoption or modification of a NPDES permit for an existing source is statutorily exempt and this Order only serves to implement a NPDES permit. (*Pacific Water Conditioning Ass’n, Inc. v. Discharger Council of Discharger of Riverside* (1977) 73 Cal.App.3d 546, 555-556.). Issuance of this Order is also exempt from the provisions of CEQA in accordance with California Code of Regulations, title 14, section 15321, subdivision (a)(2).
24. A regional board may delegate issuance of time schedule orders to the Executive Officer. (Water Code §13223.). On 10 December 2009, the Central Valley Water Board adopted Resolution No. R5-2009-0114 to provide explicit authority to the Executive Officer to issue or modify time schedule orders, and to make this authority known to the public and regulated community.

25. On 25 September 2014 the Central Valley Water Board notified the Discharger, and interested agencies and persons, of its intent to adopt a new TSO for this discharge and provided them with an opportunity to submit their written views and recommendations. Pursuant to Water Code section 13167.5 for a time schedule order adopted pursuant to Water Code section 13300, comments were due 27 October 2014, which is at least a 30-day public notice and comment period.

**IT IS HEREBY ORDERED THAT:**

Time Schedule Order R5-2010-0029-02 is rescinded, except for enforcement purposes, and, pursuant to Water Code Sections 13300 and 13267:

1. The Discharger shall comply with the following time schedule to submit reports and ensure completion of the compliance projects described in the above Findings:

<b>Task</b>	<b>Compliance Date</b>
Submit documentation that the construction of the facility upgrade project has been initiated.	12 December 2014
Submit documentation that the construction of the new surface water supply project has been completed.	31 May 2017
Submit documentation that the discharge fully complies with the final effluent limitations for copper and selenium.	25 October 2017
Submit documentation that the construction of the secondary and tertiary facilities has been completed.	25 October 2017
Submit documentation summarizing the results from the hold time studies for cyanide.	31 October 2018
Submit documentation that the discharge fully complies with the final effluent limitations for cyanide.	25 October 2019

2. The following interim average monthly and maximum daily effluent limitations, as indicated for Discharge Point 001 and Discharge Point 002, shall be effective immediately through 24 October 2017, or when the Discharger is able to come into compliance, whichever is sooner.

<b>Parameter</b>	<b>Units</b>	<b>Average Monthly Effluent Limitation</b>	<b>Maximum Daily Effluent Limitation</b>
<b><i>Discharge Point 001</i></b>			
Selenium, Total Recoverable	µg/L	7.1	11
	lbs/day <sup>1</sup>	0.44	0.69
<b><i>Discharge Point 002</i></b>			
Copper, Total Recoverable	µg/L	39	82
Selenium, Total Recoverable	µg/L	7.2	12
	lbs/day <sup>1</sup>	0.45	0.75

<sup>1</sup> Based on an average dry weather discharge flow of 7.5 mgd.

3. The following interim average monthly and maximum daily effluent limitations at Discharge Point 001 shall be effective immediately through 24 October 2019, or when the Discharger is able to come into compliance, whichever is sooner.

Parameter	Units	Average Monthly Effluent Limitation	Maximum Daily Effluent Limitation
<b>Discharge Point 001</b>			
Cyanide	µg/L	9.6	18

4. 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.”*

5. In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain work plans, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall contain the professional's signature and/or stamp of the seal.

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order or with the WDRs may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

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 Water Code 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, 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.

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 **5 December 2014**.

***Original Signed By***

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PAMELA C. CREEDON, Executive Officer