CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TIME SCHEDULE ORDER R5-2025-XXXX

REQUIRING
CITY OF DAVIS
WASTEWATER TREATMENT FACILITY
YOLO COUNTY

TO COMPLY WITH WASTE DISCHARGE REQUIREMENTS PRESCRIBED IN
ORDER R5-2025-XXXX
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT CA0079049

FINDINGS

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

1. The City of Davis (Discharger), owns and operates the City of Davis Wastewater Treatment Plant (Facility). The Facility discharges up to 7.5 million gallons per day (MGD) of tertiary treated municipal to Willow Slough Bypass, Conaway Ranch Toe Drain, and/or Tule Canal (via the Main Conaway Canal), waters of the United States.
2. On 19/20 June 2025, the Central Valley Water Board adopted Waste Discharge Requirements (WDR) Order R5-2025-XXXX, NPDES Permit CA0079049, which included final effluent limitations for total copper and total cyanide shown in part as follows:

Table 1. Effluent Limitations in Order R5-2025-XXXX

Parameter	Units	Average Monthly	Maximum Daily
Copper, Total	micrograms per liter (µg/L)	6.5	12
Cyanide, Total	µg/L	4.3	8.5

NEED FOR TIME SCHEDULE AND LEGAL BASIS

4. On 15 November 2024, the Discharger submitted an infeasibility analysis requesting additional time to comply with the existing final effluent limitations for total copper and total cyanide in WDR Order R5-2025-XXXX. For compliance with the final effluent limitations for total copper and total cyanide, the Discharger has requested time to conduct a water effects ratio study for copper, determine the most representative up and downstream receiving water hardness, investigate treatment process for cyanide generation, investigate cyanide sample preservation techniques, conduct a holding time study for unpreserved cyanide samples, and evaluate alternative cyanide sampling locations and/or treatment options.
5. The Discharger cannot consistently comply with the total copper and total cyanide effluent limitations in WDR Order R5-2025-XXXX and must implement additional actions to reach compliance. This Order contains a time schedule for compliance with final effluent limitations, sets interim limitations for certain constituents, and is

intended to provide protection from mandatory minimum penalties (MMPs) for these constituents.

MANDATORY MINIMUM PENALTIES

6. California Water Code (CWC) section 13385, subdivisions (h) and (i), requires the Central Valley Water Board to impose MMPs upon dischargers that violate certain effluent limitations. CWC section 13385(j)(3) exempts discharges from these MMPs:

   … 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...

7. Per the requirements of CWC 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 CWC section 13385(h) and (i).

   b. The Discharger requested 2 years 4 months to comply with the final effluent limitations for total copper and 3 years 1 month to comply with the final effluent limitations for total cyanide. The Discharger also provided a time schedule to comply with the final effluent limitations for total copper and total cyanide.

      i. **Copper.** To comply with final effluent limitations for total copper, the Discharger proposed that 1 year and 4 months are necessary to allow the Discharger to perform a Water Effect Ratio study and to collect additional receiving water hardness data to evaluate the most representative hardness value for the receiving water. Modifications would be required to Order R5-2025-XXXX to incorporate the results of these studies after the review and acceptance of the study results, which is estimated to take approximately one year.

      ii. **Cyanide.** To comply with final effluent limitations for total cyanide, the Discharger proposed that 2 years and 1 month is necessary to allow for the Discharger to prepare a cyanide study plan, conduct the approved cyanide study, and prepare a technical memorandum of the cyanide study results to submit to the Central Valley Water Board. Modifications would be required to Order R5-2025-XXXX to incorporate the results of these studies after the review and acceptance of the study results, which is estimated to take approximately one year.

   c. The final effluent limitations for total copper and total cyanide are new, more stringent, or modified regulatory requirements that became applicable to the waste discharge after the effective date of Order R5-2025-XXXX and after 1 July 2000. New or modified control measures are necessary in order to comply with the final effluent limitations for total copper and total cyanide. The new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.

d. This Order establishes a time schedule to bring the waste discharge into compliance with the 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 effluent limitations.

8. By statute, a Cease and Desist Order or Time Schedule Order may provide protection from MMPs for no more than five years.

9. For total copper, compliance with this Order exempts the Discharger from mandatory minimum penalties for violations of the final effluent limitations for total copper found in WDR Order R5-2025-XXXX from **1 August 2025** (effective date of WDR Order R5-2025-XXXX) until **1 December 2027**.

   For total cyanide, compliance with this Order exempts the Discharger from mandatory minimum penalties for violations of the final effluent limitations for total cyanide found in WDR Order R5-2025-XXXX from **1 August 2025** (effective date of WDR Order R5-2025-XXXX) until **18 September 2026**.

   The Discharger has previously been protected from mandatory minimum penalties for effluent limitations violations of the total copper for 5.3 years (1,708 days of MMP protection remaining) and total cyanide for 8.9 years (412 days of MMP protection remaining, which ends on 19 September 2026 prior to the TSO compliance date).

10. In accordance with CWC section 13385(j)(3)(C), the total length of protection from mandatory minimum penalties for the final effluent limitations for total copper and total cyanide does not exceed five years.

11. This Order provides a time schedule for completing the actions necessary to ensure compliance with the final effluent limitations for total copper and total cyanide contained in WDR Order R5-2025-XXXX. Since the time schedule for completion of actions necessary to bring the waste discharge into compliance exceeds one year, this Order includes interim effluent limitations and interim requirements and dates for their achievement.

12. This Order includes new performance-based interim effluent limitations for total copper and total cyanide. The Central Valley Water Board calculated an interim average monthly effluent limitation (AMEL) for total copper and total cyanide based on the current treatment plant performance. With 10 or more sampling data points, sampling and laboratory variability is accounted for by establishing interim effluent limitations that are based on normally distributed data where 99.9% of the data points will lie within 3.34 standard deviations of the mean (Basic Statistical Methods for Engineers and Scientists, Kennedy and Neville, Harper and Row). Therefore, an interim AMEL for total copper and total cyanide was calculated using the mean plus 3.3 standard deviations.

    The interim maximum daily effluent limitations (MDELs) were calculated using the MDEL/AMEL multipliers per Table 2 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California

(SIP). In calculating interim effluent limitations for total copper and total cyanide, effluent data between November 2020 through October 2023 for total copper and March 2020 through November 2020 for total cyanide was used. Table 2 below summarizes the calculation of the interim effluent limitations for total copper and total cyanide, a coefficient of variation (CV) of 0.6 was used for total cyanide since the number of samples was below ten, per SIP section 1.4.B, Step 3.

Table 2. Interim Effluent Limitations

Parameter	CV	AMEL Multiplier	MDEL Multiplier	Maximum Effluent Concentration (µg/L)	AMEL (µg/L)	MDEL (µg/L)
Total Copper	0.5	1.5	2.7	18	40	73
Total Cyanide	0.6	1.6	3.1	6.5	31	62

13. 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. However, the interim effluent limitations establish an enforceable ceiling concentration until compliance with the final effluent limitation can be achieved.

14. 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 CWC 13385(j)(3). It is the intent of the 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

15. CWC section 13300 states, in part: "*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.*"

16. CWC section 13383 states, in part: "*[A] regional board may establish monitoring, inspection, entry, reporting, and recordkeeping requirements . . . for any person who discharges, or proposes to discharge, to navigable waters, any person who introduces pollutants into a publicly owned treatment works, any person who owns or operates, or proposes to own or operate, a publicly owned treatment works or*

other treatment works treating domestic sewage, or any person who uses or disposes, or proposes to use or dispose, of sewage sludge."

17. The Discharger owns and operates the Facility. The technical and monitoring reports required by this Order are necessary to determine compliance with the requirements in this Order, WDR Order R5-2015-0002, and subsequent WDRs.

18. 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. City Council of City of Riverside (1977) 73 Cal.App.3d 546, 555-556.).

19. On 19/20 June 2025, 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 this Time Schedule Order under Water Code section 13301 to establish a time schedule to achieve compliance with waste discharge requirements.

IT IS HEREBY ORDERED THAT:

1. Pursuant to California Water Code Sections 13300 and 13383, the Discharger shall comply with the following time schedule shown on Table 3, to submit reports and ensure completion of the compliance project described in Finding 7.b, above:

Table 3. Compliance Schedule for Total Copper and Total Cyanide Effluent Limitations

Task Number	Task	Compliance Date
1	**Pollution Prevention Plan.** Submit and implement a Pollution Prevention Plan pursuant to CWC section 13263.3 for total copper and total zinc.	**1 August 2026**
2	**Annual Progress Reports.** The Discharger shall submit annual progress reports. The progress reports shall detail what steps have been implemented towards achieving compliance with total copper and total cyanide effluent limitations.	**31 March, annually until 31 March 2028**
3	**Copper Water Effects Ratio (WER) and Receiving Water Hardness Study Workplan.** The Discharger shall submit the Copper WER and Receiving Water Hardness Study Workplan describing how the sampling plan will be conducted along with methods used to determine a WER for total copper and how the evaluation of the representative up and downstream receiving water hardness values will be conducted.	**1 October 2025**

Task Number	Task	Compliance Date
4	**Copper WER and Receiving Water Hardness Technical Memorandum.** The Discharger shall submit the Copper WER and Receiving Water Hardness Technical Memorandum documenting results and conclusions from the total copper WER study and receiving water hardness study. This study shall, at minimum, provide an evaluation of the representative up and downstream receiving water hardness values, along with a WER value that was derived in accordance with the methods allowed in the SIP and CTR.	**1 December 2026**
5	**Compliance with Total Copper Effluent Limitations.** The Discharger shall submit documentation that the Facility complies with the total copper effluent limitations contained in WDR Order R5-2025-XXXX.	**1 December 2027**
6	**Cyanide Study Workplan.** The Discharger shall submit the Cyanide Study Workplan describing how the Discharger will investigate the treatment process for cyanide generation, investigate sample preservation techniques, conduct holding time study for unpreserved samples, propose an alternative effluent sampling location and sampling method for cyanide.	**1 March 2026**
7	**Cyanide Study Technical Memorandum.** The Discharger shall submit the Cyanide Study Technical Memorandum documenting the cyanide study results and conclusions.	**1 September 2027**
8	**Compliance with Total Cyanide Effluent Limitations.** The Discharger shall submit documentation that the Facility complies with the total cyanide effluent limitations contained in WDR Order R5-2025-XXXX.	**1 September 2028**

2. The following interim effluent limitations for total copper and total cyanide shall become effective 1 August 2025. The Discharger shall comply with the following interim effluent limitations through 1 August 2027 for total copper and 18 May 2026 (last day of MMP exemption) for total cyanide, or when the Discharger is able to come into compliance with the final effluent limitations, whichever is sooner.

Table 4. Interim Effluent Limitations

Parameter	Units	Interim AMEL	Interim MDEL
Total Copper	µg/L	40	73
Total Cyanide	µg/L	31	62

3 Any person signing a document submitted under this TSO 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."

4. 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 for, 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 WDR Order 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 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. Links to the laws and regulations applicable to filing petitions may be found on the Water Quality Petitions Page (http://www.waterboards.ca.gov/public_notices/petitions/water_quality) or will be provided upon request.

I, Patrick Pulupa, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on **20 June 2025**.

PATRICK PULUPA, Executive Officer