CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TIME SCHEDULE ORDER R5-2024-0021

REQUIRING
CITY OF BRENTWOOD
WASTEWATER TREATMENT PLANT
CONTRA COSTA COUNTY

TO COMPLY WITH WASTE DISCHARGE REQUIREMENTS PRESCRIBED IN ORDER R5-2024-0020
(NPDES PERMIT CA0082660)

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

1. Waste Discharge Requirements (WDR) Order R5-2024-0020 was adopted by the Central Valley Water Board renewing the National Pollutant Discharge Elimination System (NPDES) permit that prescribes waste discharge requirements for the City of Brentwood (hereafter Discharger), Wastewater Treatment Plant (hereafter Facility), Contra Costa County. The Discharger provides sewerage service to a population of approximately 64,870. WDR Order R5-2024-0020 regulates the discharge of an average dry weather flow 5.0 million gallons per day (MGD) and 6.4 MGD upon completion of the Phase II Facility Expansion Project of tertiary treated municipal wastewater to Marsh Creek, a water of the United States, within the legal boundary of the Sacramento-San Joaquin Delta.

2. On 19 April 2024, the Central Valley Water Board adopted WDRs Order R5-2024-0020, which imposed Final Effluent Limitations IV.A.1, which reads, in part, as follows:

Table 4. Effluent Limitations

Parameters	Units	Average Monthly	Average Weekly	Maximum Daily
Dibromochloromethane	micrograms per liter (µg/L)	34	--	58
Dichlorobromomethane	µg/L	46	--	72

NEED FOR TIME SCHEDULE AND LEGAL BASIS

3. On 16 January 2018, the Discharger submitted an infeasibility analysis documenting the compliance strategy for meeting final effluent limits for dibromochloromethane and dichlorobromomethane.

4. The Central Valley Water Board adopted Time Schedule Order (TSO) R5-2019-0030 providing a compliance schedule for the Discharger to comply with the final effluent limitations for dibromochloromethane and dichlorobromomethane contained in previous WDRs Order R5-2019-0029.

5. The Discharger has made diligent progress toward achieving compliance with the final effluent limitations for dibromochloromethane and dichlorobromomethane. The Discharger recycles wastewater and must meet Title 22 tertiary recycled water requirements. The California Code of Regulations Title 22 § 60301.230(a)(1) requires, "A chlorine disinfection process following filtration that provides a CT (the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow." This requirement is based on disinfection by chloramination; however, because the Facility is required to meet a low ammonia effluent limit, the disinfection process is by default free chlorine disinfection, which is a faster acting disinfection process than chloramination. The Discharger submitted a study to the State Water Board Division of Drinking Water (DDW) in June 2017 to request a lower site-specific CT requirement based on the use of free chlorine disinfection. A lower CT is expected to reduce the production of disinfection byproducts, such as dibromochloromethane and dichlorobromomethane. The Discharger's study demonstrates that a CT of only 9 mg-min/L (free chlorine) provides the level of disinfection required by Title 22. DDW approved the revised CT; however, the Discharger needed time to make the necessary changes to the Facility to implement free chlorine/low CT disinfection.

6. The COVID-19 pandemic that began in 2020 impacted the U.S. economy and has led to ongoing supply chain issues, including a shortage of construction materials, equipment, and parts necessary to implement the free chlorine/low CT disinfection process at the Facility. As a result, the Discharger has not completed the Facility modifications to implement free chlorine/low CT disinfection and cannot comply with the final effluent limitations for dibromochloromethane and dichlorobromomethane contained in WDR Order R5-2024-0020.

7. On 9 February 2024, the Discharger requested an extension of the compliance schedule for dibromochloromethane and dichlorobromomethane to allow additional time for completing and testing the Facility modifications to implement free chlorine/low CT disinfection and assess the Facility's ability to comply with final effluent limitations in WDR Order R5-2024-0020.

8. The compliance time schedule authorized by this Order allows time to proceed with implementation and evaluation of the free chlorine/low CT disinfection process. However, in the unlikely event that the Facility still cannot comply with the final effluent limitations for dibromochloromethane and dichlorobromomethane by the compliance date in this Order, the Central Valley Water Board will consider a request by the Discharger to further extend the compliance schedule for dibromochloromethane and dichlorobromomethane to allow additional time, in compliance with the requirements under Water Code section 13385, subdivision (j)(3)(C)(ii)(II), to research, design, and construct an alternative approach to fully comply with the final effluent limitations for dibromochloromethane and dichlorobromomethane contained in WDR Order R5-2024-0020.

MANDATORY MINIMUM PENALTIES

9. California Water Code (CWC) section 13385, subdivisions (h) and (i), requires the Central Valley Water Board to impose mandatory minimum penalties (MMPs) upon dischargers that violate certain effluent limitations. CWC section 13385, subdivision (j)(3), exempts the discharge from 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."

10. 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, subdivisions (h) and (i).

    b. 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 1 July 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. To comply with final dibromochloromethane and dichlorobromomethane effluent limitations, the Discharger has determined that additional time is necessary to develop and implement the projects discussed in Findings 4 through 8.

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

11. Final average monthly effluent limitations (AMELs) and maximum daily effluent limitations (MDELs) for dibromochloromethane and dichlorobromomethane became applicable to the waste discharge on the effective date of previous WDR Order R5-2019-0029 (1 June 2019). TSO R5-2019-0030 provided protection from MMPs for violations of final effluent limitations for dibromochloromethane and dichlorobromomethane from 1 June 2019 through 31 May 2024.

12. WDR Order R5-2024-0020 retains the AMELs for dibromochloromethane and dichlorobromomethane in WDR Order R5-2019-0029 and includes more restrictive MDELs.

13. By statute, a TSO may provide protection from MMPs for no more than five (5) years, except as provided in CWC section 13385(j)(3)(C)(ii).

14. Per the requirements of CWC 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 (5) years, if the Discharger demonstrates that the additional time is necessary to comply with the effluent limitation. In accordance with CWC Section 13385(j)(3)(C)(ii)(II), the time schedule is extended no more than five (5) years. 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 for dibromochloromethane and dichlorobromomethane contained in WDR Order R5-2024-0020.

15. Compliance with this Order exempts the Discharger from MMPs for violations of the final effluent limitations for dibromochloromethane and dichlorobromomethane in WDR Order R5-2024-0020 from **1 June 2024** through **30 September 2026**.

16. In accordance with CWC section 13385(j)(3)(C)(ii), the total length of protection from MMPs for the final effluent limitations for dibromochloromethane and dichlorobromomethane is as short as possible and does not exceed ten (10) years.

17. This Order provides a time schedule for completing the actions necessary to ensure compliance with the final effluent limitations for dibromochloromethane and dichlorobromomethane contained in WDR Order R5-2024-0020. Since the time schedule for completion of actions necessary to bring the waste discharge into compliance exceeds one (1) year, this Order includes interim effluent limitations and interim requirements and dates for their achievement.

18. This Order includes interim limitations for dibromochloromethane and dichlorobromomethane. The new performance-based interim effluent limitations for dibromochloromethane and dichlorobromomethane consist of an MDEL and AMEL derived using sample data provided by the Discharger. In developing the performance-based interim AMEL, where there are 10 data points or more and only once per month sampling is required, sampling and laboratory variability is accounted for by establishing interim effluent limitations that are based on normally distributed data where 99.9 percent 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, 3rd Edition, January 1986)*. When at least 80 percent of the data points are reported as non-detect (ND) values, or if there are less than 10 data points available, the interim AMEL is based on 3.11 times the maximum observed effluent concentration (MEC) when once per month sampling is required. Additionally, if either of these procedures produces an interim AMEL less than the MEC, the MEC is sometimes established as the interim AMEL. The interim MDEL can be calculated by multiplying the calculated AMEL with a multiplier from Table 2 (which is each parameter's MDEL multiplier divided by their AMEL multiplier) of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California. The coefficient of variation was calculated using historical effluent data. In this case, based on best professional judgment, and evaluation of the facility performance, the interim AMEL and MDEL for

dibromochloromethane and dichlorobromomethane are described below. This approach for interim effluent limitations was used in the previous TSO.

19. 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 achieved.

20. If an interim effluent limitation 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 and that a violation of an interim daily maximum effluent limitation subjects the Discharger to one MMP for the day in which the sample was collected.

OTHER REGULATORY REQUIREMENTS

21. CWC section 13300 states the following:

> 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.

22. CWC section 13383 states, in part:

> (a) The state board or 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.
>
> (b) The state board or regional boards may require any person subject to this section to establish and maintain monitoring equipment or methods, including, where appropriate, biological monitoring methods, sample effluent as prescribed, and provide other information as may be reasonably required.

23. The Discharger owns and operates the treatment facility which is subject to this Order. The technical and monitoring reports required by this Order are necessary to determine compliance with WDR Order R5-2024-0020 and with this Order.

24. Issuance of this Order is exempt from the provisions of the CEQA (Pub. Resources Code, § 21000 et seq.) pursuant to CWC 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.)

The Central Valley Water Board has notified the Discharger and interested agencies and persons of its intent with the compliance schedule for dibromochloromethane and dichlorobromomethane contained in TSO R5-2024-0021 for this discharge and has provided them with an opportunity to submit their written views and recommendations.

IT IS HEREBY ORDERED THAT, TSO R5-2019-0030 is rescinded upon the effective date of this Order, except for enforcement purposes, and pursuant to Water Code sections 13300 and 13383, the Discharger shall comply with the following**:**

1. The Discharger shall comply with the following time schedule to ensure compliance with final effluent limitations for dibromochloromethane and dichlorobromomethane in WDR Order R5-2024-0020.

Task	Compliance Date
i. Submit Legally Responsible Official's Signed Certification and Photo Documentation Demonstrating Free Chlorine/Low CT Disinfection Process is Operational	**31 December 2024**
ii. Submit Report Demonstrating Compliance with the Final Effluent Limitations for Dibromochloromethane and Dichlorobromomethane	**30 September 2026**

2. The discharge at Discharge Point 001 shall not exceed the interim effluent limitation described below for dibromochloromethane and dichlorobromomethane. The interim effluent limitations for dibromochloromethane and dichlorobromomethane are effective from **1 June 2024 through 30 September 2026,** or when the Discharger is able to come into compliance, whichever is sooner.

Parameter	Units	Interim AMEL	Interim MDEL
Dibromochloromethane	µg/L	53	91
Dichlorobromomethane	µg/L	130	210

3. 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."

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 civil engineering, geologic, or geophysical plans, calculations, specifications, and related reports submitted with technical reports specified herein shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated and 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 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 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 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 **19 April 2024**. This Order shall become effective upon the effective date of WDRs Order R5-2024-0020, which is **1 June 2024**.

Patrick Pulupa Date: 2024.05.06 22:28:32 -07'00'

PATRICK PULUPA, Executive Officer