California Regional Water Quality Control Board
North Coast Region

ORDER NO. R1-2016-0012
REQUIRING
CITY OF EUREKA ELK RIVER WASTEWATER TREATMENT PLANT
TO CEASE AND DESIST FROM DISCHARGING OR THREATENING
TO DISCHARGE EFFLUENT IN VIOLATION OF
WASTE DISCHARGE REQUIREMENTS ORDER NO. R1-2016-0001
NPDES NO. CA0024449
WDID NO. 1B82151OHUM

Humboldt County

The Regional Water Quality Control Board, North Coast Region (hereinafter Regional Water Board), finds that:

1. The City of Eureka (hereinafter Permittee) owns and operates a wastewater treatment plant (Facility) located in Eureka, California. For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Permittee herein.

2. The Facility reports an average dry weather treatment capacity of 5.24 million gallons per day (mgd), a peak dry weather treatment capacity of 8.6 mgd, and a peak wet weather secondary treatment capacity of 12 mgd. Wastewater is conveyed to the Facility through an extensive sanitary sewer system consisting of 125 miles of sewer mains, 9,500 service laterals, 17 lift stations, 3 pump stations, interceptor lines, collection lines, and manholes. The system collects and conveys over 1.5 billion gallons of wastewater per year, including infiltration and inflow (I/I). The Facility provides primary treatment with mechanical bar screens, grit removal, and primary clarification and secondary treatment using two trickling filters, followed by secondary clarification, and chlorine disinfection. The chlorinated effluent is stored in a holding pond then dechlorinated and discharged year round at Discharge Point 001 to Humboldt Bay in conjunction with ebb tide cycles.

3. The Facility is regulated by Waste Discharge Requirements Order No. R1-2016-0001, National Pollutant Discharge Elimination System (NPDES) Permit No. CA0024449, adopted by the Regional Water Board on June 16, 2016. Order No. R1-2016-0001 contains discharge prohibitions, effluent and receiving water limitations, as well as other compliance provisions. Order No. R1-2016-0001 prohibits discharges to Humboldt Bay, which do not comply with the Water Quality Control Policy for the Enclosed Bays and Estuaries of California (Enclosed Bays and Estuaries Policy) adopted by the State Water Resources Control Board (State Water Board), and prohibits bypass of secondary treatment.

4. The discharge of treated effluent via the outfall in Humboldt Bay was permitted in 1981 based upon mathematical modeling, tidal monitoring, and a dye study completed in 1979, which indicated that discharging at ebb tide was expected to convey all effluent to the Pacific Ocean. Based upon findings from these 1979 studies

completed by the Permittee, the Regional Water Board concluded in Resolution No. 80-10 that an ebb discharge was a viable alternative to an ocean outfall discharge as a means of complying with the Enclosed Bays and Estuaries Policy adopted in 1974.

5. On January 8, 2014, the Permittee submitted an Effluent Discharge Study for the Elk River Wastewater Treatment Plant (2014 Effluent Discharge Study). The 2014 Effluent Discharge Study modeling analysis shows that under all simulations, Facility effluent is not completely conveyed to the ocean, and under certain conditions, up to 90% of the effluent remains in Humboldt Bay.

6. Based on the conclusions of the 2014 Effluent Discharge Study, a significant portion of the Facility's effluent remains in Humboldt Bay. Consequently, the Regional Water Board has determined that the discharge does not qualify as an ocean discharge as previously concluded, but rather a bay discharge subject to the Enclosed Bays and Estuaries Policy. The method to comply with the Bays and Estuaries Policy has not yet been determined, but is likely to be complex and requires extended time to achieve.

7. Regional Water Board waste discharge requirements for the Facility dating back to 1984 have authorized bypass of secondary treatment during peak wet weather flows exceeding 12 mgd. Order No. R1-2016-0001 recognizes that ebb tide currents in Humboldt Bay are not sufficient in strength to carry effluent discharges out of Humboldt Bay and prohibits discharges to Humboldt Bay that do not receive full biological secondary treatment. The method to eliminate bypass of secondary treatment has not yet been determined, but is likely to be complex and requires extended time to achieve.

8. Order No. R1-2016-0001 is proposed for adoption concurrently with this Cease and Desist Order. Upon adoption of Order No. R1-2016-0001, it will serve as the current NPDES Permit for this Facility effective September 1, 2016. The Permit includes discharge prohibitions, effluent and receiving water limitations, and compliance provisions. This Cease and Desist Order will become effective upon adoption.

9. Section 13301 of the California Water Code states "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 to (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."

10. Terms in Order No. R1-2016-0001 that are being violated or threaten to be violated are:

"III. DISCHARGE PROHIBITIONS

A. *Discharge Prohibition III.A. The discharge of waste to Humboldt Bay is prohibited unless it is done in a manner which complies with the State Water Board, Water Quality Control Policy for the Enclosed Bays and Estuaries of California (1974, 1995) (Enclosed Bays and Estuaries Policy).*

E. *Discharge Prohibition III E. The discharge of untreated or partially treated waste (receiving a lower level of treatment than secondary treatment as described in section II.A of the Fact Sheet) from anywhere within the collection, treatment, or disposal systems is prohibited, except as provided for in Attachment D, Standard Provisions G (Bypass) and H (Upset)."*

11. The Regional Water Board has determined that it is infeasible to comply with Discharge Prohibitions A and E in a short period of time.

12. The Permittee is unable to consistently comply with Discharge Prohibitions A and E because new or modified control measures are needed to achieve compliance. The new or modified control measures are dependent on the completion of a series of studies, thus these control measures cannot be designed, installed, and put into operation within 30 calendar days.

13. Requirements of this Order establish a time schedule for bringing the Facility into compliance with Discharge Prohibitions. A maximum of 168 months are provided to the Permittee to complete a series of studies, and based upon the findings from those studies, to design, install and implement control measures that will lead to compliance with the Discharge Prohibitions.

14. The compliance schedule established in this Order accounts for the considerable uncertainty in determining effective measures necessary to achieve compliance with Order No. R1-2016-0001. The compliance schedule is based on reasonably expected times needed to evaluate potential compliance measures in a step-wise manner. The Regional Water Board may wish to revisit these assumptions as more information becomes available from the Permittee's evaluations.

15. 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 an NPDES permit for an existing source is statutorily exempt and this Order only serves to implement an NPDES permit. Issuance of this Order is also exempt from CEQA pursuant to section 15321 of title 14 of the California Code of Regulations.

16. On June 16, 2016, after due notice to the Permittee and all other interested persons, the Regional Water Board conducted a public hearing and received evidence regarding this Order.

THEREFORE, IT IS HEREBY ORDERED, that pursuant to California Water Code section 13301, the Permittee shall cease and desist from discharging and threatening to discharge waste in violation of the terms of Waste Discharge Requirements Order No. R1-2016-0001, National Pollutant Discharge Elimination System (NPDES) Permit No. CA0024449 by complying with the following requirements:

1. **Eliminate discharge of untreated or partially treated waste:** Permittee shall complete the following tasks by the associated compliance schedules:

Task 1A. By **November 1, 2016**, the Permittee shall prepare and submit a Sanitary Sewer Evaluation Survey (SSES) for Executive Officer approval. At a minimum, the SSES shall:

a. Characterize the existing collection system using available closed circuit television (CCTV) data and employing a system for ranking the condition of pipelines that meets the National Association of Sewer Service Companies (NASCO) or other industry-accepted standards;

b. Identify and prioritize collection system deficiencies;

c. Provide a schedule of needed long-term and short-term repairs to address system deficiencies and reduce exfiltration, infiltration and inflow (I/I);

d. Include a hydraulic analysis of the collection system under estimated dry weather and peak wet weather flow conditions;

e. Present findings of the hydraulic analysis on a GIS system map or other database; and

f. Identify areas where increases in pipeline size, I&I reduction programs, increases and redundancy in pumping capacity are needed to eliminate any identified hydraulic capacity deficiencies.

Task 1B. By **March 1, 2017**, the Permittee shall prepare and submit a comprehensive Wet Weather Improvement Plan for Executive Officer approval. At a minimum, the Wet Weather Improvement Plan shall include the following components for the reduction and ultimate elimination of flows that bypass secondary treatment in order to comply with Order No. R1-2016-0001:

a. Incorporate proposed actions from *Effluent Discharge Study for the Elk River Wastewater Treatment Plant* (2014 Effluent Discharge Study);

b. Incorporate the priorities and schedule of needed long-term and short-term repairs from the SSES under Task 1A;

c. Identify a range of alternatives for treatment plant corrective actions, improvements, upgrades, configuration, and private sewer lateral programs;

d. Specify for each preferred measure, the volume of wastewater to be eliminated from influent and/or bypass, an implementation schedule, cost, and proposed funding mechanism(s); and

e. Describe the Permittee's strategy to work with satellite agencies to reduce peak wet weather flows (e.g. establishing quantifiable goals in the reduction of inflow and infiltration).

Task 1C. By **July 1, 2017**, the Permittee shall begin implementation of the Wet Weather Improvement Plan in accordance with the schedule approved by the Executive Officer.

Task 1D. By **July 1, 2018, and annually by July 1 thereafter**, the Permittee shall evaluate and report on the implementation and effectiveness of its Wet Weather Improvement Plan. Elements to be included in the report include, but are not limited to, progress on private sewer lateral programs and status of capital improvement projects. The Permittee shall include information from the satellite agencies to the extent that information is available.

Task 1E. Discharges of untreated or partially treated waste shall be eliminated as soon as practicable, but in no case later than **July 1, 2028**.

2. **Comply with the Enclosed Bays and Estuaries Policy:** The Permittee shall complete the following tasks by the associated compliance schedules:

Task 2A. By **July 1, 2020**, the Permittee shall submit for Executive Officer review and approval a Feasibility Study that considers the Outfall Inspection Report, Updated Sewer Use Ordinance Evaluation Report, Climate Change Readiness Study Plan, and Biological Survey Report required in accordance with Order No. R1-2016-0001, and evaluates and recommends alternatives to achieve compliance with Prohibition III.A of Order No. R1-2016-0001. At a minimum, the Enclosed Bays and Estuaries Compliance Feasibility Study shall:

a. Assess the existing Facility system configuration and performance;

b. Assess the existing condition and performance of the outfall at Discharge Point 001;

c. Analyze potential alternatives to ensure compliance with the Enclosed Bays and Estuaries Policy, including, but not limited to, Facility system configuration, effluent quality, and environmental enhancements;

d. Identify the Permittee's Preferred Alternative(s), including costs, a summary of how the Preferred Alternative(s) specifically considered the Outfall Inspection Report, Updated Sewer Use Ordinance Evaluation Report, Climate Change Readiness Study Plan, and Biological Survey Report; and

e. Propose a schedule of implementation.

Task 2B. By **July 1 2022**, the Permittee shall submit written verification and an electronic copy of preliminary design plans and specifications for construction of the Executive Officer approved Preferred Alternative(s).

Task 2C. By **July 1, 2023**, the Permittee shall submit an Environmental Impact Report (EIR) or other documentation as necessary to complete the California Environmental Quality Act (CEQA) process for the Preferred Alternative(s) identified in Task 2A.

Task 2D. By **July 1, 2024**, the Permittee shall submit written verification and an electronic copy of complete design plans and specifications for construction of the Preferred Alternative(s).

Task 2E. By **July 1, 2026,** the Permittee shall procure and submit copies of all permits necessary to implement the Preferred Alternative(s) (i.e. Coastal Commission, Army Corps of Engineers, Calif. Dept. of Fish and Wildlife, Regional Water Board, etc.).

Task 2F. By **July 1, 2030**, the Permittee shall complete construction of the Preferred Alternative(s) which complies with the Enclosed Bays and Estuaries Policy and achieve compliance with all Regional Water Board waste discharge requirements.

3. In the interim period until the Permittee can achieve full compliance with Order No. R1-2016-0001, the Permittee shall operate and maintain, as efficiently as possible, all facilities and systems necessary to comply with all prohibitions, effluent limitations and requirements identified in Order No. R1-2016-0001 or any future waste discharge requirements issued for the Facility.

4. If the Permittee is unable to perform any activity or submit any documentation in compliance with the deadlines set forth in Requirements above, the Permittee may request, in writing, that the Regional Water Board grant an extension of the time. The extension request shall include justification for the delay.

5. If the Executive Officer of the Regional Water Board finds that the Permittee fails to comply with the provisions of this Order, the Executive Officer may take all actions authorized by law, including referring the matter to the Attorney General for judicial enforcement or issuing a complaint for administrative civil liability pursuant to Water Code sections 13350 and 13385. The Regional Water Board reserves the right to take any enforcement actions authorized by law.

6. Any person affected by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and title 23, California Code of Regulations, section 2050. The petition must be received by the State Water Board within 30 days of the date of this Order. Copies of the law and regulations applicable to filing petitions will be provided upon request. In addition to filing a petition with the State Water Board, any person affected by this Order may request the Regional Water Board to reconsider this Order. To be timely, such request must be made within 30 days of the date of this Order. Note that even if reconsideration by the Regional Water Board is sought, filing a petition with the State Water Board within the 30-day period is necessary to preserve the petitioner's legal rights. If you choose to request reconsideration of this Order or file a petition with the State Water Board, you must comply with the Order while your request for reconsideration and/or petition is being considered.

Certification

I, Matthias St. John, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, North Coast Region, on June 16, 2016.

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Water Boards

Matthias St. John
Executive Officer

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