June 2, 2023

TIME SCHEDULE ORDER No. R1-2023-0038

TO PROVIDE TIME SCHEDULES TO COMPLY WITH ORDER No. R1-2018-0035

UKIAH WASTEWATER TREATMENT PLANT
NPDES No. CA0022888

MENDOCINO COUNTY
WDID No. 1B84029OMEN

The California Regional Water Quality Control Board, North Coast Region (hereafter Regional Water Board), finds:

1. The City of Ukiah (Permittee) is the owner and operator of the Ukiah Wastewater Treatment Plant (Facility), a publicly owned treatment works, which discharges tertiary treated wastewater under Waste Discharge Requirements (WDRs) contained in Order No. R1-2018-0035 (Permit) beginning on November 1, 2018, adopted by the Regional Water Board on September 6, 2018. The Permit also serves as a National Pollutant Discharge Elimination System (NPDES) permit (NPDES No. CA0022888). The Permit contains discharge prohibitions, effluent and receiving water limitations, compliance provisions, and monitoring and reporting requirements, including the continuation of final effluent limitations for ammonia and nitrate.

2. The Permittee is also regulated under Time Schedule Order (TSO) No. R1-2018-0051, beginning on October 31, 2018. The TSO provides a time schedule to bring the Permittee's waste discharge into compliance with permit effluent limitations for ammonia, nitrate, dichlorobromomethane (DCBM), and chlorodibromomethane (CDBM). The TSO was subsequently revised on March 2, 2021 to allow additional time to complete tasks associated with the time schedule for ammonia and nitrate; compliance with final effluent limitations for DCBM and CDBM had been achieved by this time.

3. The Permittee was previously regulated under WDR Order No. R1-2012-0068 (previous permit), adopted by the Regional Water Board on August 23, 2012 which also contained discharge prohibitions, effluent and receiving water limitations, compliance provisions, and monitoring and reporting requirements, including the final effluent limitations for ammonia and nitrate.

4. The Facility serves a population of approximately 21,000 residential, commercial, and industrial users, including 16,000 within the City of Ukiah and 5,000 in the Ukiah Valley Sanitation District.

   The Facility is designed to treat an average dry weather flow of 3.01 million gallons per day (mgd), and a peak wet weather flow of 24.5 mgd of secondary treated wastewater, as well as a peak wet weather flow of 7.0 mgd of advanced treated wastewater.

   The treatment system consists of an influent wet well, bar screens, aerated grit removal, primary clarifiers, trickling filters, aerated solids contact tank, secondary clarifiers, and a chlorine contactor pipe where secondary disinfection is performed using sodium hypochlorite. This disinfected secondary effluent is discharged to three percolation ponds year-round. During the period from October 1 through May 14, treatment continues with the addition of a ferric chloride polymer as the wastewater is sent to multi-media filters, a tertiary chlorine contact basin where disinfection is performed using sodium hypochlorite, and a dechlorination facility where dechlorination is performed using sodium bisulfite. The resulting disinfected, dechlorinated advanced treated wastewater effluent is discharged to the Russian River.

5. The Permittee has been subject to Cease and Desist Order (CDO) No. R1-2012-0069 that was adopted concurrently with WDR Order No. R1-2012-0068 to establish a compliance schedule requiring the Permittee to complete specific tasks to achieve compliance with ammonia and nitrate effluent limitations. The Permittee completed studies and assessments to identify a means to comply with ammonia and nitrate effluent limitations which has proved challenging due to limited capital improvement funds following the Permittee's costly wastewater treatment plant upgrade in 2006 and limitations of the Permittee's current treatment process for achieving complete conversion of ammonia to nitrate and nitrate to nitrogen gas.

6. Pursuant to federal regulations at section 122.44(d)(1)(i), title 40 of the Code of Federal Regulation (CFR), NPDES permit effluent limitations must control all pollutants which are or may be discharged at a level that 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 water quality criteria. Beneficial uses, together with their corresponding water quality objectives or

promulgated water quality criteria, can be defined per federal regulations as water quality standards.

7. The Regional Water Board adopted the Water Quality Control Plan for the North Coast Region (hereinafter Basin Plan), which designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. The Basin Plan identifies present and potential beneficial uses for the Russian River.

8. The Permit implements provisions of the Basin Plan by requiring the Permittee to monitor its effluent for certain constituents that may have reasonable potential to cause or contribute to an excursion above a water quality criterion or objective applicable to the receiving water. In particular, the Permit includes final effluent limitations for ammonia and nitrate. The Basin Plan also includes a narrative toxicity objective that requires all waters to be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. This Basin Plan objective is applicable because ammonia is toxic to aquatic life and must be controlled in order to prevent toxicity.

9. The Permittee is violating or threatening to violate, the following terms in Order Number R1-2018-0035:

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point 001 and 002

1. Final Effluent Limitations – Discharge Point 002

a. The discharge of treated wastewater shall maintain compliance with the following limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001B as described in the Monitoring and Reporting Program (MRP) (Attachment E). The advanced treated wastewater shall be adequately oxidized, filtered, and disinfected as defined in title 22, division 4, chapter 3, of the CCR.

Table 4: Effluent Limitations – Discharge Point 001 (Monitoring Location EFF-001B)

Table 4: Effluent Limitations- Discharge Point 001 (Monitoring Location EFF-001B)

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Ammonia Nitrogen	mg/L	2.5	--	5.6	--	--
Nitrate Nitrogen, Total (as N)	mg/L	10	--	--	--	--

10. Untreated domestic wastewater contains ammonia. Nitrification is a biological process that converts ammonia to nitrite and nitrate. Denitrification is a process that converts nitrate to nitrite or nitric oxide and then to nitrous oxide or nitrogen gas, which is then released to the atmosphere. Depending on the degree of nitrification and/or denitrification in a wastewater treatment process, there can be varying levels of ammonia and nitrate. There can also be concentrations of nitrite and organic nitrogen, however, these are usually found at lower concentrations than nitrate or ammonia. Inadequate or incomplete nitrification may result in the discharge of ammonia to the receiving stream. Ammonia is known to cause toxicity to aquatic organisms in surface waters. Discharges of ammonia would violate the Basin Plan narrative toxicity objective and numeric water quality objectives published in U.S. EPA's *Aquatic Life Ambient Water Quality Criteria for Ammonia – Freshwater* published in 2013. The discharge may contain concentrations of nitrate that exceed the primary drinking water maximum contaminant level of 10 mg/L established by the State Water Board, Division of Drinking Water for the protection of human health.

11. On February 27, 2023, the Permittee submitted a letter requesting that the tasks and deadlines included in the time schedule within TSO No. R1-2018-0051 be revised. Specifically, the Permittee requested an extension of time to complete construction of Phase 4 of the Permittee's Recycled Water Project (Task E), and requests that a new compliance task be included within the TSO's time schedule to allow the Permittee to evaluate current effluent data to determine the feasibility of compliance with the final effluent limitations for ammonia and nitrate, and to allow the omission of Tasks G-K if further treatment system upgrades are not necessary.

Additionally, the letter confirms that project funding for Phase 4 of the recycled water project has been secured and identifies that completion of Phase 4 of the Recycled Water Project will not be completed by the compliance date. The letter further explains that Phase 4 of the Recycled Water Project will be starting construction in fall 2023.

The letter also describes Facility and sewer system improvements that have been completed and that are planned, and identifies that the effluent ammonia and nitrate concentrations are currently in compliance with the final effluent limitations.

12. The Regional Water Board finds that delays related to the construction of Phase 4 of the Permittee's Recycled Water Project were out of the control of the Permittee and agrees that the inclusion of a new task to review current effluent data to determine if additional compliance actions are required to meet final effluent limitations for ammonia and nitrate is reasonable and appropriate.

13. This Order, TSO No. R1-2023-0038, replaces TSO No. R1-2018-0051 and provides an updated compliance schedule for the Permittee to complete the Permittee's Phase 4 Recycled Water Project, evaluate current effluent data and determine if additional treatment facility upgrades are necessary, and to develop and implement additional methods of compliance if necessary to meet the final effluent limitations for ammonia and nitrate.

14. Water Code section 13267, subdivision (a) provides that the Regional Water Board may investigate the quality of any waters of the state within its region in connection with any action relating to the Basin Plan. Water Code section 13267, subdivision (b) provides that the Regional Water Board, in conducting an investigation, may require a discharger to furnish, under penalty of perjury, technical or monitoring program reports. The reports required by this Order, pursuant to Water Code section 13267, are necessary to ensure that the future threat to water quality created by activities at the Facility are properly assessed and controlled. Due to the importance of protecting water resources as explained herein, the costs associated with developing the required reports and work plans bear a reasonable relationship to the benefits that will be obtained from having the necessary information for the Regional Water Board to properly regulate and monitor the Facility.

15. Water Code section 13383, subdivision (a) provides the Regional Water Board may establish monitoring, inspection, entry reporting, and record keeping requirements, as authorized by section 13160, 13376, or 13377 for any person who discharges, or proposes to discharge to navigable waters. Subdivision (b) provides that the Regional Water Board 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.

16. This Order may not provide additional protection from MMPs for ammonia and nitrate because the Permittee's original compliance schedule was provided through CDO No. R1-2012-0069, beginning October 1, 2012, and the California Water Code only allows such protections for a maximum of 10 years.

17. The compliance schedules established in this Order are intended to be as short as possible. The compliance schedule for ammonia and nitrate accounts for the interrelationship between ammonia and nitrate, the time necessary to complete construction of the Permittee's recycled water project and implement water recycling, evaluate the treatment system to determine if final effluent limitations for ammonia and nitrate can be met, and to evaluate options for ammonia and nitrate removal for the smaller volume of effluent to be discharged if necessary.

    The Regional Water Board recommends that the Permittee continue to evaluate resources to identify a means to shorten the time frame for achieving compliance with effluent limitations for these pollutants.

18. The Regional Water Board has notified the Permittee, interested agencies and persons, of its intent to issue a Time Schedule Order in accordance with Water Code section 13167.5.

19. 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.).

IT IS HEREBY ORDERED, pursuant to California Water Code section 13300, 13267 and 13383, the Permittee shall comply with the following requirements to prevent violations of Order No. R1-2018-0002:

1. Time Schedule Order No. R1-2018-0051 is rescinded, except for enforcement purposes and is replaced by the Order.

2. The Permittee shall implement the tasks in the following compliance schedule in order to ensure compliance with final effluent limitations for ammonia and nitrate in Effluent Limitation IV.A.1.a of Order No. R1-2018-0035 at the earliest possible date in accordance with the following schedule:

Table Compliance Schedule for Proposed Permit

Task	Task Description	Compliance Schedule Date
A	Submit annual progress reports.	**March 1, annually**
B	Complete construction of Phase 4 of the Recycled Water System.	**November 1, 2024**
C	Prepare report to summarize results of effluent monitoring conducted through the end of the 2022/2023 discharge season and determine feasibility of compliance with final effluent limitations for ammonia and nitrate. Submit report for Executive Officer review. If the Executive Officer agrees that compliance is feasible, Tasks D-H below are not required.	**August 1, 2023**
D	Complete a feasibility study and submit a feasibility study report for Executive Officer review and approval identifying the recommended treatment system to ensure compliance with final effluent limitations for ammonia and nitrate.	**October 1, 2023**
E	Complete preliminary design of the selected treatment system to ensure compliance with final effluent limitations for ammonia and nitrate.	**February 1, 2024**
F	Complete and submit CEQA documentation and construction contract documents for the recommended treatment alternative.	**April 1, 2024**
G	Award construction contract.	**June 1, 2024**
H	Complete construction of the recommended treatment alternative.	**December 1, 2024**
I	Because interim effluent limitations for ammonia and nitrogen are no longer available, the Permittee is currently subject to the applicable final effluent limitations for these constituents. This final compliance date reflects when the Permittee is expected to complete all required tasks in this compliance schedule that will ensure ongoing compliance with final effluent limitations.	**January 1, 2025**

3. 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. R1-2018-0035, 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 Requirement 2, above, the Permittee may request, in writing, an extension of the time. The extension request shall include justification for the delay and shall be submitted at least thirty days prior to the respective deadline to be considered complete and timely.

5. If the Regional Water Board finds that the Permittee fails to comply with the provisions of this Order, the Regional Water Board 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 13268, 13350, and/or 13385. The Regional Water Board reserves the right to take any enforcement actions authorized by law.

Any person aggrieved by this action of the North Coast Regional Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050. 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 at the State Water Board Quality Petitions website (https://www.waterboards.ca.gov/public_notices/petitions/water_quality) or 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, be advised that you must comply with the Order while your request for reconsideration and/or petition is being considered.

Ordered by:

Valerie Q

Digitally signed by Valerie Quinto
Date: 2023.06.02 13:17:16 -07'00'

Water Boards

Valerie Quinto
Executive Officer