
North Coast Regional Water Quality Control Board

**Response to Written Comments
Draft Waste Discharge Requirements
Order No. R1-2022-0001
National Pollutant Discharge Elimination System (NPDES)
For the
Mendocino City Community Services District Wastewater Treatment Plant
Regional Water Quality Control Board, North Coast Region
August 4, 2022**

Comments Received

The deadline for submittal of public comments regarding draft Waste Discharge Requirements for Order No. R1-2022-0001, National Pollutant Discharge Elimination System Permit (Draft Permit) for the Mendocino City Community Services District (CSD or Permittee) Wastewater Treatment Plant (Facility) was March 28, 2022. Regional Water Board staff (Staff) only received written comments from the Permittee.

Regional Water Board staff virtually met with the Permittee on June 22, 2022 to discuss the Permittee's comments. Responses to comments contained in this document are consistent with the discussion that occurred during the June 22, 2022 meeting.

This Response to Comments document includes a summary of Permittee's comments, Staff responses, and staff-initiated changes. Text added to the Proposed Permit is identified by underline and text to be deleted from the Proposed Permit is identified by ~~strike-through~~ in this document. The term "Draft Permit" refers to the version of the permit that was sent out for public comment. The term "Proposed Permit" refers to the version of the permit that has been modified in response to comments received and is being presented to the North Coast Regional Water Quality Control Board (Regional Water Board) for consideration.

Mendocino City CSD Comments:

Comment No. 1: *The CSD requests that a new monitoring location can be established for monitoring of residual chlorine for the calculation of the Disinfection Contact Value and measurement of Disinfection Contact Time. Specifically, the CSD asks that the Proposed Order include Monitoring Location REC-002, located at the Recycled Water Storage Tank at the Mendocino City High School. As identified in the CSD's Title 22 Engineering Report, the CSD uses residual chlorine analysis from this location to*

determine compliance with the 450 milligram-minutes per liter recycled water requirement.

Response to Comment No. 1: Staff agree that the inclusion of proposed Monitoring Location REC-002 is required to accurately determine CT (see definition below) Disinfection contact time and CT value as identified in the CSD's Title 22 Engineering Report. Staff have updated the Proposed Permit to include Monitoring Location REC-002 and have update the Recycled Water Monitoring Requirements to correctly identify Monitoring Location REC-002 for residual chlorine, disinfection contact time, and disinfection contact value monitoring.

The CT value is the product of total chlorine residual and modal contact time measured at the same period. The modal contact time is the amount of time that elapsed between the time that a tracer, such as salt or dye, is injected into the influent at the entrance of the chlorination chamber and the time that the highest concentration of the tracer is observed in the effluent from the chamber.

The Proposed Permit has been modified as follows:

4.4.2. **Disinfection Process Requirements.**

The recycled water subsequent to filtration must be disinfected to meet the following criteria by either: (1) 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; or (2) A disinfection process that, when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for purposes of the demonstration.

Treated effluent shall be disinfected in a manner that ensures effective pathogen reduction as described in the following specifications, with compliance measured at Monitoring Location REC-0042:

The Proposed Monitoring and Reporting Program has been modified as follows:

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
---	INF-001	Influent wastewater prior to treatment and following all significant input of wastewater to the treatment system. <u>Influent wastewater following all significant input of wastewater to the treatment system and initial screening and prior to any further treatment.</u>
---	INT-001	Location for monitoring the surface loading rate through filters.
001	EFF-001	A location where representative samples of the treated wastewater can be collected from the effluent wet well, immediately following the tertiary filters.
001	EFF-002	A location where representative samples of the treated wastewater can be collected from the chlorine contact chamber prior to discharge to the flow equalization pond.
001	EFF-003	A location where representative samples of the treated wastewater overflow from the flow equalization pond at Structure A can be collected prior to contact with the receiving water. Latitude: 39° 18' 21" N Longitude: -123° 48' 30" W
002	REC-001 ¹	A location where representative samples of treated wastewater to be recycled can be collected <u>at the treatment system.</u>
<u>002</u>	<u>REC-002</u>	<u>A location where representative samples of treated wastewater to be recycled from the Mendocino High School recycled water storage tank.</u>
<u>Table Notes</u>		
1. For ocean discharges, the Permittee monitors BOD ₅ and TSS at the effluent wet well following the tertiary filters and total coliform bacteria and pH from the chlorine contact chamber. During periods of discharge to the recycled water system, monitoring at these locations shall be reported at Monitoring Location REC-001.		

7.1. Monitoring Locations REC-001 and REC-002

7.1.1. The Permittee shall monitor treated effluent during periods of water recycling at Monitoring Location REC-001 as follows:

Table E-6. Recycled Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow ¹	mgd	Meter	Continuous	---
Biochemical Oxygen Demand 5-day @ 20°C (BOD ₅)	mg/L	24-hr Composite	Weekly	Standard Methods ²
pH	s.u.	Grab	Weekly	Standard Methods ²
Total Suspended Solids (TSS)	mg/L	24-hr Composite	Weekly	Standard Methods ²
Total Coliform Bacteria	MPN/100 mL	Grab	Daily ³	Standard Methods ²
Total Residual Chlorine	mg/L	Meter	Continuous	Standard Methods ²
Disinfection Contact Time	Minutes	Measurement	Daily	---
Disinfection CT Value	mg-min/L	Calculation	Daily	---
Nitrate Nitrogen, Total (as N) ⁴	mg/L	Grab	<u>Monthly</u>	Standard Methods ²

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Nitrite Nitrogen, Total (as N) ⁴	mg/L	Grab	5	Standard Methods ²
Ammonia Nitrogen, Total (as N) ⁴	mg/L	Grab	5	Standard Methods ²
Organic Nitrogen, Total (as N) ⁴	mg/L	Grab	5	Standard Methods ²
Total Dissolved Solids (TDS)	mg/L	Grab	5	Standard Methods ²
Chloride	mg/L	Grab	5	Standard Methods ²
Boron	mg/L	Grab	5	Standard Methods ²
Sodium	mg/L	Grab	5	Standard Methods ²
Visual Observations ⁶	---	---	---	---

Table Notes

1. For each month, the Permittee shall record the number of days that treated wastewater was used for recycled water irrigation at the Mendocino High School athletic fields or other approved recycled water use sites, as well as the average and maximum daily flow rate.
2. In accordance with the current edition of Standard Methods for Examination of Water and Wastewater (American Public Health Administration) or current test procedures specified in 40 C.F.R. part 136.
3. Total coliform monitoring shall occur each day that recycled water is transferred from the wastewater treatment plant to the recycled water system. All total coliform samples shall be analyzed by the Permittee utilizing analytical equipment in the Permittee's laboratory. Once a week, two coliform samples shall be collected at the same time, with one sample to be submitted to a certified laboratory for analysis and the other sample to be analyzed in the Permittee's laboratory.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
<p>4. Monitoring for nitrate, nitrite, ammonia, and organic nitrogen is for the purpose of determining total nitrogen concentration for agronomic rate calculations.</p> <p>5. Nutrients (nitrate, nitrite, ammonia, total organic nitrogen) and salts (TDS, chloride, boron, and sodium) shall be monitored two times during the 2023 recycled water delivery season.</p> <p>6. During periods of discharge to the irrigation system, visual observations shall be conducted at least monthly for agronomic applications to verify compliance with recycled water requirements in Order section 4.3, Recycling Specifications and Requirements. The inspection frequency shall be increased for use sites with a history of non-compliance with water recycling requirements established in this Order. Visual monitoring shall confirm proper operations of the recycled water system and associated BMPs. The Permittee shall include a record of any malfunctions or findings of improper operations, including, but not limited to odors, evidence of surface runoff, or ponding that exceeds 24 hours. Visual observations may be performed by the irrigation users in accordance with the Permittee's user agreements. The quarterly recycled water report shall include the daily volume of treated wastewater discharged to the irrigation system and any observations indicating non-compliance with the provisions of the recycling requirements.</p>				

7.1.2. The Permittee shall monitor treated effluent during periods of water recycling at Monitoring Location REC-002 as follows:

Table E-7. Recycled Water Monitoring Requirements

<u>Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Minimum Sampling Frequency</u>	<u>Required Analytical Test Method</u>
<u>Total Residual Chlorine</u>	<u>mg/L</u>	<u>Meter</u>	<u>Daily²</u>	<u>Standard Methods¹</u>
<u>Disinfection Contact Time</u>	<u>Minutes</u>	<u>Measurement</u>	<u>Daily²</u>	<u>---</u>
<u>Disinfection CT Value</u>	<u>mg-min/L</u>	<u>Calculation</u>	<u>Daily²</u>	<u>---</u>
<u>Total Coliform Bacteria</u>	<u>MPN/100 mL</u>	<u>Grab</u>	<u>Daily²</u>	<u>Standard Methods¹</u>

<u>Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Minimum Sampling Frequency</u>	<u>Required Analytical Test Method</u>
<u>Table Notes</u>				
1. <u>In accordance with the current edition of Standard Methods for Examination of Water and Wastewater (American Public Health Administration) or current test procedures specified in 40 C.F.R. part 136.</u>				
2. <u>Monitoring shall occur each day that recycled water is transferred from the wastewater treatment plant to the recycled water system. Total coliform samples shall be analyzed by the Permittee utilizing analytical equipment in the Permittee's laboratory.</u>				

7.1.23. The Permittee shall comply with Water Recycling Specifications and Requirements contained in section 4.3 of this Order.

Comment No. 2: *The CSD identifies that their Facility only has one flow meter and asks that the Draft Permit be amended to identify that influent flow measurements are equivalent to and may be used to meet the effluent flow monitoring requirement. The CSD further identifies that water directed to the recycled water system is also metered.*

Response to Comment No. 2: Staff recognize that the Facility only contains influent and recycled water flow meters and agrees that a footnote identifying that influent flow measurements are representative of effluent flows would be appropriate to include in the Proposed Permit. Table E-5 of the Proposed Monitoring and Reporting Program has been modified as follows:

Table E-5. Effluent Monitoring – Monitoring Location EFF-003

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Effluent Flow ¹	mgd	Meter	Continuous	---
Total Residual Chlorine ²	mg/L	Grab	Weekly	Standard Methods ³
TCDD Equivalents ⁴	µg/L	24-hr Composite	Annually	Standard Methods ³

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Ammonia Nitrogen, Total (as N)	mg/L	Grab	Monthly	Standard Methods ³
Ocean Plan Table 3 Pollutants ⁵	µg/L.	Composite ⁶	Annually	Standard Methods ³
Chronic Toxicity ⁷	Pass or Fail, % Effect	Grab	Annually	See Section 5 below:

Table Notes

- Each month, the Permittee shall report the maximum daily and mean daily flows. The Permittee may use the influent flow measurement to calculate the effluent flow. In reporting the result, the Permittee shall indicate that influent flow was used in the calculation and shall subtract any treated effluent flow directed to Discharge Point 002.
- Accelerated Monitoring. If two consecutive weekly test results exceed an effluent limitation, the Permittee shall take two samples each of the two weeks following receipt of the second sample result. During the intervening period, the Permittee shall take steps to identify the cause of the exceedance and take steps needed to return to compliance.
- In accordance with the current edition of Standard Methods for Examination of Water and Wastewater (American Public Health Administration) or current test procedures specified in 40 C.F.R. part 136.
- TCDD-equivalents shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors.
- Excluding Table 3 pollutants with specific monitoring requirements established by Tables E-4, E-5, and E-6 and acute toxicity.
- Grab samples shall be used for volatile chemicals listed in Table 3 of the Ocean Plan (2019). Composite samples shall be used for all other Ocean Plan Table 3 parameters.
- The median monthly summary result shall be reported as "Pass" or "Fail". The maximum daily single result shall be reported as "Pass" or "Fail" with a "% Effect". Exactly three independent toxicity results are required when one toxicity test results in "Fail". Refer to section 5.1.8 for accelerated monitoring.

Comment No. 3: *The CSD has identified that the description for Monitoring Location INF-001 in Table E-1 of the Draft Monitoring and Reporting Program incorrectly describes this location as being prior to any treatment. Monitoring Location INF-001 is however located after the Facility's bar screen, part of the Facility's primary treatment. The CSD asks if the sampler needs to be relocated in front of the bar screen, although they further indicate that this would be challenging.*

Response to Comment No. 3: Influent monitoring prior to treatment is necessary to accurately assess compliance with the minimum allowable percent removal for BOD and TSS at a facility. By collecting influent samples after the bar screen, sample results may exhibit a low bias and the resulting percent removal will be lower. Because this bias is not beneficial to the Permittee's compliance determination and the Facility has consistently exceeded the minimum percent removal for BOD and TSS, staff feel that the current INF-001 sample location may continue to be used for the Facility's influent monitoring. Staff have updated the description of Monitoring Location INF-001 to properly describe the sampling point used, as indicated under Response to Comment No. 1 of this document. Monitoring and Reporting Program Table E-1 of the Proposed Permit has also been modified as indicated under Response to Comment No. 1 of this document.

Comment No. 4: *The CSD identifies that TCDD Equivalent monitoring was only required once per permit term in their current NPDES Permit. They ask if the annual monitoring requirement for TCDD Equivalent propose in the Draft Permit can be reduced to the currently required once per permit term frequency. The CSD further identifies that the laboratory costs to perform the increased number of TCDD Equivalent monitoring events would approximate \$5,000 and that they have a documented history of non-detect results.*

Response to Comment No. 4: Appendix III, Section 5 of the Ocean Plan identifies that monitoring for substances in Table 3 of the Ocean Plan shall be required at a minimum frequency of at least one complete scan annually for Facilities with discharges less than 10 million gallons per day. TCDD Equivalents are included within Table 3 of the Ocean Plan.

No changes have been made to the permit in response to this comment.

Comment No. 5: *The CSD identified that Table F-1 of the Fact Sheet in the Draft Permit incorrectly identifies Mike Kelley as the District Superintendent and asks that it is corrected to identify Robert Ryan Rhoades.*

Response to Comment No. 5: Table F-1 of the Proposed Permit has been corrected as requested.

Comment No. 6: *The CSD identifies that Table E-6 within the Monitoring and Reporting Program of the Draft Permit only requires that Nitrate Nitrogen be monitored two times during the 2023 recycled water delivery system, but that this monitoring frequency is not sufficient to determine compliance with the Recycled Water Discharge Specification average monthly effluent limit of 10 mg/L identified in Table 3 of the Draft Order. The CSD wishes to confirm that this monitoring is only required to be completed twice per year as indicated in the Draft Permit's MRP.*

Response to Comment No. 6: The recycled water monitoring requirement for Nitrate was retained from Order No. R1-2015-0039. The proposed monitoring frequency requirement for nitrate, nitrite, ammonia, and total organic nitrogen is intended to determine the total nitrogen agronomic rate calculations for each discharge season but is inadequate to demonstrate compliance with the Total Nitrate Discharge Specification included in Table 3 of the Proposed Order. Staff have updated Table E-6 of the Proposed Order to indicate a required monitoring frequency for Total Nitrate of monthly. Table E-6 of the Proposed Monitoring and Reporting Program has been modified as indicated under Response to Comment No. 1 of this document.

Comment No. 7: *The CSD asks if their consultant would be considered qualified to complete the requested Effluent Discharge Evaluation to establish the appropriate dilution ration for their discharge. Alternatively, the CSD asks if a dye study would be more appropriate for this study.*

Response to Comment 7: The Regional Water Board is open to consider either an engineering evaluation or practical dye study analysis to determine an appropriate dilution ratio for the Facility's outfall. It is for the CSD to evaluate the qualifications and proposed methodologies for each resource available to them to complete this study. Staff suggest that the Permittee request qualification statements and proposed methodologies from their available resources to better evaluate the appropriateness of each. Staff can make themselves available to discuss the acceptability of the provided qualifications and methodologies with the Permittee prior to submittal of the Effluent Discharge Evaluation Work Plan.

No changes have been made to the permit in response to this comment.

Comment No. 8: *The CSD has requested further explanation on the TRE/TIE analyses requirements as they relate to the existing MCCSD TRE work plan.*

Response to Comment No. 8: A detailed Toxicity Reduction Evaluation (TRE) Work Plan is required to be initiated when one of the accelerated toxicity tests described in section 5.1.8. of the Proposed Permit results in a "fail". A Toxicity Identification Evaluation (TIE), as identified in Section 5.2.3 of the Proposed Permit, may be included as part of a detailed TRE, although this is not necessarily required. Section 5.1.9.2. of the proposed Permit requires that the Regional Water Board Executive Officer be notified no later than 30 days from completion of each aspect of a TRE/TIE analysis.

Furthermore, TRE/TIE results shall be submitted to the Regional Water Board Executive Officer within 60 days of completion. For purposes of this Order, any reference to TRE/TIE shall be considered an independent TRE, detailed TRE, TIE, or any combination of the previous. Each aspect of a TRE/TIE shall be synonymous with the independent steps identified by the Permittee in the TRE, Detailed TRE Work Plan, or TIE.

No changes have been made to the permit in response to this comment.

Staff Initiated Changes:

The following sections describe changes made to the draft Order, initiated by Regional Water Board staff and based on the recommended provisions included in DDW's June 21, 2022 Title 22 Engineering Report Conditional Acceptance Letter (Conditional Acceptance Letter). The Conditional Acceptance Letter was issued after the Draft Order was released for public comment and was revised on June 23, 2022 to correct the listed recycled water system identification number. The newly added or modified sections are identified by their section numbers as indicated in the Proposed Order. Regional Water Board staff virtually met with the Permittee on June 22, 2022 to discuss the changes made to the Draft Permit in response to DDW's conditional Acceptance Letter, and the Permittee did not have any objections to the proposed changes. Changes to various section's identifying section numbers that do not result in a change to the content of the draft Order, have not been identified within this document.

1. The draft Order has been modified as follows to incorporate recommended provisions per DDW's Conditional Acceptance Letter:
 - 4.3.2.1 The Permittee shall comply with applicable state and local requirements regarding the production and use of recycled wastewater, including requirements of Water Code sections 13500 – 13577 (Water Recycling) and ~~State Water Resources Control Board (State Water Board), Division of Drinking Water (DDW) regulations at California Code of Regulations (CCR), title 17, sections 7583 – 7586, section 7601 - 7605, and CCR, title 22, sections 60301 – 60357 of the CCR (Water Recycling Criteria).~~
 - 4.3.2.2. The Permittee shall maintain an up-to-date Division of Drinking Water (DDW) approved title 22 Recycled Water Engineering Report that demonstrates or defines compliance with the Uniform Statewide Recycling Criteria (and any future amendments thereto). A new Title 22 Engineering Report or Engineering Report addendum shall be submitted to DDW and the Regional Water Board for review and approval of any future use of recycled water or expansion of irrigated areas beyond those described in the approved Title 22 Engineering Report. The Permittee shall submit to DDW and the Regional Water Board a Recycled Water Engineering Report prepared in accordance with title 22 requirements within 6 months of the permit effective date. The

~~Permittee shall receive approval of its title 22 Engineering Report from DDW prior to adding any new recycled water user(s).~~

4.3.2.3. The Permittee must maintain a current operations plan for the Facility, which shall be submitted to DDW and the Regional Water Board for approval upon any changes or modifications to the treatment process and/or its operations.

4.3.2.5. Per Articles 8 and 10 of the Recycled Water Criteria, Title 22 of CCR, the Permittee shall always maintain the reliability features and contingency measures for the Facility process and ensure that recycled water not meeting the specifications of this Order not delivered to the recycled water user.

4.3.3. Recycled Water Use Site Specification

The application and use of disinfected tertiary recycled water must be in accordance with the Recycled Water Criteria, Title 22 of CCR. The Permittee, as the recycled water producer must ensure updated agreement(s) are maintained with the recycled water user(s) as deemed necessary to reflect upon current recycled water uses and practices, and for the following to be adhered:

4.3.3.1. An Engineering Report must be submitted to DDW and Regional Water Board for review and approval of any future use of recycled water or expansion of irrigated areas beyond those described in the approved Title 22 Engineering Report.

4.3.3.2. Plans for future uses of recycled water or expanded irrigated areas, when available must be submitted to DDW and the County Department of Environmental Health (County DEH) for review and approval.

4.3.3.4. Disinfected tertiary recycled water shall not be impounded within 100 feet of any domestic water supply well or domestic water supply intake. [Cal. Code Regs., tit. 22, § 60310(b)]

4.3.3.11. Drinking water fountains must be protected against contact with recycled water spray, mist, or runoff.

4.3.3.12. All irrigation equipment, pumps, piping, valves, quick couplers and outlets shall be a type or secured in a manner that only permits operation by authorized personnel and shall be appropriately marked to differentiate them from potable facilities. The recycled water system in the irrigated areas must not include hose bibs. Only quick couplers that differ from those used on the potable water system can be used.

4.3.3.14. Recycled water use site shut down tests must be performed every four years and reuse site inspections must be performed annually. Each must be monitored by County DEH and DDW maybe invited to attend. The inspections and testing must be performed by a cross connection control specialist certified by the California-Nevada section of the American Water Works

Association or an organization with equivalent certification requirements. A written report documenting the result of the inspection or testing for the prior year must be submitted to the County DEH and DDW within 30 days following completion of the inspection or testing.

4.3.3.15. No physical connection can be made or allowed to exist between the recycled water system and any separate system conveying potable water. If a swivel-ell device is planned to be used, the construction plan must be submitted to DDW and the Regional Water Board for review and approval.

4.3.3.16. The installation of recycled water pipeline(s) with respect to water mains shall be in accordance with the separation criteria pursuant to section 64572, Chapter 16, California Waterworks Standards. The plans for the installation of the recycled water pipeline(s) must be submitted to DDW and the Regional Water Board for review, and written approval shall be obtained prior to installation.

4.4.1. **Filtration Process Requirements**

All recycled water shall be filtered using the dual media gravity filters as described in the approved Title 22 Engineering Report. No changes, additions, or modifications can be made to the filtration treatment unless approval is obtained from DDW and the Regional Water Board.

4.4.1.1. **Coagulation Prior to Filtration.** The wastewater must be continuously coagulated by addition of a coagulant dose prior to the filters. The coagulation dosing system must be maintained with reliability features including alarms for uninterrupted coagulant feed and shut down of recycled water transfer pumps in event of coagulant dosing failure as described in the approved Title 22 Engineering Report or subsequent revision.

1.1.1.1. **Filtration Rate.** When discharging to the recycled water system, the rate of filtration through the tertiary filters, as measured at Monitoring Location INT-001, shall not exceed five (5) gallons per minute per square foot of surface area, corresponding to a maximum filtration flow rate of 0.77 MGD, or other filtration rates authorized in writing by the Regional Water Board Executive Officer and under conditions recommended by DDW.

4.4.2. **Disinfection Process Requirements.**

The recycled water subsequent to filtration must be disinfected to meet the following criteria by either: (1) 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; or (2) A disinfection process that, when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque forming units of F-specific bacteriophage MS2, or polio

virus in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for purposes of the demonstration.

Treated effluent transferred to the Mendocino High School recycled water storage tank shall be disinfected in a manner that ensures effective pathogen reduction as described in the following specifications, with compliance measured at Monitoring Location REC-002:

- 4.4.2.1. Before recycled water is used to irrigate the athletic fields, a CT value of not less than 450 milligram-minutes per liter shall be achieved by maintaining a chlorine residual in the recycled water storage tank for a predetermined contact time. The minimum allowable contact time, between the time pumping from the Facility is stopped and the time irrigation begins, is 90 minutes. Recycled water present in the Mendocino High School recycled water storage tank shall be entirely representative of the fresh batch of recycled water transferred. If any previous transferred batch of recycled water remains within this tank, it shall be drained prior to transferring the fresh batch of recycled water.
- 4.4.2.3. The Permittee shall provide monitoring of an alarm and/or an operation protocol that ensures maintenance of the required minimum total chlorine residual with the corresponding recycled water storage tank retention time(s), which equates to the CT disinfection value of 450 mg-min/l.
- 4.4.2.4. A total coliform sample for each batch of recycled water transferred shall be collected in conjunction with the chlorine residual measurement for CT disinfection requirements and shall be negative to operate the irrigation pumps for reuse.
- 4.4.4. **Full Treatment.** Excess influent flows and/or off specification process flows temporarily diverted to overflow/emergency ponds must be returned to the headworks for full treatment.

6.3.4. **Construction, Operation and Maintenance Specifications**

- 6.3.4.1. **Proper Operation and Maintenance.** This Order (Attachment D, Standard Provision 1.4) requires that the Permittee at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Permittee to achieve compliance with this Order. Proper operation and maintenance includes adequate laboratory quality control and appropriate quality assurance procedures. A preventive maintenance program must be maintained by the Permittee to ensure all equipment is kept in a reliable operating condition.
- 6.3.4.3 **Operating Records.** The Permittee shall maintain operating records at the Facility or at the Permittee's central depository. The records shall include: all analyses specified in the reclamation criteria; any documentation of

operational problems, plant and equipment breakdowns, and diversions to emergency storage or disposal; and documentation of all corrective or preventive actions taken.

Process or equipment failures triggering an alarm must be recorded and maintained as a separate record file. The recorded information must include the time and cause of failure and corrective action taken.

6.3.5.4 **Operator Certification**

Supervisors and operators of municipal wastewater treatment facilities shall possess a certificate of appropriate grade in accordance with CCR title 23, section 3680. The State Water Board may accept experience in lieu of qualification training. In lieu of a properly certified wastewater treatment facility operator, the State Water Board may approve use of a water treatment facility operator of appropriate grade certified by the DDW where water recycling is involved.

The Permittee must always provide enough qualified personnel to operate the Facility effectively to achieve the required level of treatment. Qualified personnel must be those meeting requirements to Division 7, Chapter 9 (commencing with section 13625) of the Water Code.

2. The Monitoring and Reporting Program (MRP) of the draft Order has been modified to reflect recommended recycled water provisions included in DDW's Conditional Acceptance Letter:

7.1.4. The Permittee shall record the daily operating time(s) and duration, and volume of recycled water transferred to the recycled water distribution system.

9.1.1.3 **Reporting.** The maximum daily filter surface loading rate, number of filter(s) operating, filter operating time(s) and duration shall be reported on the quarterly self-monitoring report. The daily status of coagulation dosing operating time(s) and duration, alarm incidences, dosing failure incidences, reason for failure and time to restore coagulant dosing shall be reported in the quarterly self-monitoring report.

9.1.3 **Disinfection Process Monitoring (Monitoring Locations REC-001 and REC-002)**

9.1.3.1. **Monitoring.** The chlorine residual of the effluent shall be monitored continuously at the end of the chlorine contact chamber (Monitoring Location REC-001) and recorded, and the modal contact time shall be determined at the ~~same point~~ Mendocino High School recycled water storage tank (Monitoring Location REC-002).

- 9.1.3.3. **Reporting.** Monitoring and reporting for the disinfection requirements shall include number of recycled water batch transfers, volume of recycled water transferred per batch, holding time in the storage tank which is the time elapsed from when batch transfer stopped till chlorine residual measurement is taken prior to irrigation reuse, chlorine residual level measured including date, time and location, CT disinfection value achieved and compliance with 450 mg-min/l, total coliform sample collection date, time and location, time the irrigation pumps were unlocked for use and, and duration of irrigation pumps use.

If the chlorination equipment fails or the chlorine disinfection CT is less than 450 mg-min/L, the event shall be reported in the quarterly self-monitoring report and the incident shall be reported to the Regional Water Board by telephone within 24 hours in accordance with Provision 6.1.2.2 of the Order only if the non-compliant effluent was sent to the recycled water distribution system. A written report describing the incident and the actions undertaken in response shall be included in the quarterly self-monitoring report. Upon discovery of any equipment failure or failure to achieve 450 mg-min/L after disinfection, inadequately treated and disinfected wastewater shall be diverted to a storage basin or an upstream process for adequate treatment.

- 10.4.4.1.1.2.4. All equipment or process failures initiating an alarm, including, but not limited to, planned and unplanned shut down of recycled water transfer pump(s) due to coagulant dosing failure, filtration flow rate/filter loading rate exceedances and/or turbidity failure, as well as any corrective and preventative actions taken; and.

- 10.5.3. **Delivery of Inadequately Treated Recycled Water.** Any discharge of untreated or partially treated wastewater to the use area, and the cessation of same, must be reported immediately by telephone to the Regional Water Board, DDW, and the local health officer.

3. The Fact Sheet of the draft Order has been modified to reflect recommended recycled water provisions included in DDW's Conditional Acceptance Letter:

- 6.2.5.4. Operator Certification (Special Provision 6.3.5.4). This provision requires the Facility to be operated by sufficient supervisors and operators who are certified as required by title 23, section 3680 of the CCR.