ATTACHMENT H - CITY OF MENDOCINO CITY INDIVIDUAL REQUIREMENTS

1. FACILITY INFORMATION

1.1. The City of Mendocino City (hereinafter Permittee) is the owner and operator of the Mendocino City Wastewater Treatment Plant (hereinafter Facility), a Publicly-Owned Treatment Works (POTW). The following table summarizes administrative information related to the facility.

Table H-1. Facility Information

WDID	1B83129OMEN
Permittee	Mendocino City Community Services District (CSD)
Name of Facility	Mendocino City Wastewater Treatment Plant
Facility Address	10500 Kelly Street Mendocino, CA 95460 Mendocino County
Facility Contact, Title and Phone	Robert Ryan Rhoades, District Superintendent, (707) 937-5790
Authorized Person to Sign and Submit Reports	Robert Ryan Rhoades, District Superintendent, (707) 937-5790
Mailing Address	P.O. Box 1029, Mendocino, CA 95460
Billing Address	Same
Type of Facility	POTW
Major or Minor Facility	Minor
Threat to Water Quality	2
Complexity	B
Pretreatment Program	No
Recycled Water Production Authorized	Yes
Land Discharge Authorized	No
Facility Permitted Flow	0.3 mgd (average dry weather flow) 1.0 mgd (peak daily wet weather flow)
Facility Design Flow	0.3 mgd (average dry weather flow) 1.0 mgd (peak daily wet weather flow)
Permitted Initial Dilution Factor (Dm)	100:1
Instream Waste Concentration	1.0%

Watershed	Mendocino Coast Hydrologic Unit
Receiving Water	Pacific Ocean
Receiving Water Type	Ocean Waters

2. FACILITY DESCRIPTION

The Permittee owns and operates the Facility, a wastewater collection, treatment, and disposal facility that serves a population of approximately 4,000, including 1,000 full-time residents and many visitors and tourists to Mendocino City, Russian Gulch State Park, and Headlands State Park.

2.1. Description of Wastewater and Biosolids Treatment and Controls

The Facility treats domestic and commercial wastewater and has an average dry weather design treatment capacity of 0.3 mgd and a peak daily wet weather treatment capacity of 1.0 mgd. The Facility consists of comminution, extended aeration activated sludge, secondary clarification, and tertiary filtration. Effluent is chlorinated, dechlorinated, and flows by gravity to a flow equalization pond. Influent flows in excess of the design flow can be routed to a 300,000 gallon overflow pond for storage until flows diminish, when the excess flow is routed back to the headworks for treatment. Effluent from the equalization pond is controlled at flow control structure A by sliding stop gates, from which flow continues to flow to control structure B, which has two pressure control valves to prevent backflow conditions in the outfall. From flow control structure B, effluent is discharged through a diffuser at Discharge Point 001 to the Pacific Ocean. Onsite storm water runoff is diverted to the plant headworks for treatment.

Solids are aerobically digested and dewatered to approximately 12 percent solids by a belt filter press, then dehydrated to approximately 90 percent solids using a sludge dryer. Condensate from the dryer is returned to the headworks for treatment. Biosolids are transported to a landfill for final disposal.

During the dry weather season (generally May through October) and other periods, as needed, tertiary treated effluent is distributed to a water recycling system at Discharge Point 002, which consists of a 55,000-gallon storage tank, accompanying appurtenances, and a pop-up sprinkler system located on the Mendocino High School athletic fields. Disinfected tertiary recycled water is pumped to the high school storage tank in a “batch” fashion, and each tank of recycled water transferred to the storage tank must be used for field irrigation before the tank is refilled from the treatment plant. The Permittee may expand recycled water use to other uses allowed by title 22, including landscape irrigation uses and toilet flushing at public facilities in the future.

2.2. Discharge Points and Receiving Waters

Treated wastewater is discharged at Discharge Point 001 at 39° 18’ 21” N latitude and 123° 48’ 30” W longitude to the Pacific Ocean. The outfall consists of a 996-foot, 8-inch pipe, which provides a minimum initial dilution of 100:1.

Treated wastewater may also be discharged to the recycled water system at Discharge Point 002.

2.3. Compliance Summary

On June 28, 2017, the Executive Officer issued an Expedited Payment Letter, (EPL) Order No. R1-2017-0035 for two (2) violations of effluent limits for oil and grease in Order No. R1-2015-0039. The EPL assessed a penalty of $3,000 for these violations and was paid by the Permittee on October 26, 2017.

2.4. Planned Changes

No modifications or operational changes that will cause a material change in the volume or quality of discharges from the Facility have been identified for the term of this Order.

3. REASONABLE POTENTIAL ANALYSIS (RPA)

Procedures for performing an RPA are described in section 5.3.3.1 of the Fact Sheet. A summary of the RPA results is included in Table H-2 below. The RPA for the effluent was conducted using effluent monitoring data generated from Ocean Plan Table 3 parameter monitoring and routine monitoring events conducted between January 2021 through December 2025.

Table H-2. Facility RPA Summary

Pollutant	Units	Qualifier	MEC [1]	No. Samples	No. ND [2]	Co [3]	Cs [4]	X-obs [5]	Endpoint [6]
Arsenic	µg/L	=	1.0	4	0	8	3	3.0	2
Cadmium	µg/L	<	0.06	4	4	1	0	<0.0006	3
Chromium VI	µg/L	<	0.5	4	4	2	0	<0.0050	3
Copper	µg/L	=	23	4	0	3	2	2.2	2
Lead	µg/L	=	0.16	4	0	2	0	0.0016	2
Mercury	µg/L	=	0.021	4	3	0.04	0.0005	<0.0007	2
Nickel	µg/L	=	3.1	4	0	5	0	0.0307	2
Selenium	µg/L	=	0.79	4	0	15	0	0.0078	2
Silver	µg/L	<	0.02	4	4	0.7	0.16	<0.16	3
Zinc	µg/L	=	37	4	0	20	8	8.3	2
Cyanide	µg/L	=	5.2	4	0	1	0	0.051	2
Total Chlorine Residual	µg/L	=	340	262	---	2	0	3.36	1
Ammonia (as N)	µg/L	=	800	63	17	600	0	7.9	2
Phenolic Compounds (non-chlorinated)	µg/L	<	17	4	4	30	0	<0.1683	3
Chlorinated Phenolics	µg/L	<	10	4	4	1	0	<0.0990	3
Endosulfan	µg/L	<	0.050	4	4	0.009	0	<0.0005	3
Endrin	µg/L	<	0.080	4	4	0.002	0	<0.0008	3
HCH	µg/L	<	0.050	4	4	0.004	0	<0.0005	3

Pollutant	Units	Qualifier	MEC [1]	No. Samples	No. ND [2]	Co [3]	Cs [4]	X-obs [5]	Endpoint [6]
Acrolein	µg/L	<	2.0	4	4	220	0	<0.0198	3
Antimony	µg/L	=	0.3	4	0	1,200	0	0.0030	2
Bis(2-chloroethoxy) methane	µg/L	<	0.9	4	4	4.4	0	<0.0089	3
Bis(2-chloroisopropyl) ether	µg/L	<	1.0	4	4	1,200	0	<0.0099	3
Chlorobenzene	µg/L	<	0.05	4	4	570	0	<0.0005	3
Chromium (III)	µg/L	=	0.75	4	3	190,000	0	<0.0074	2
Di-n-butyl Phthalate	µg/L	<	6.0	4	4	3,500	0	<0.0594	3
Dichlorobenzenes	µg/L	<	0.8	4	4	5,100	0	<0.0008	3
Diethyl Phthalate	µg/L	<	1.0	4	4	33,000	0	<0.0099	3
Dimethyl Phthalate	µg/L	<	2.0	4	4	820,000	0	<0.0198	3
4,6-dinitro-2-methylphenol	µg/L	<	3.0	4	4	220	0	<0.0297	3
2,4-dinitrophenol	µg/L	<	5.0	4	4	4	0	<0.0495	3
Ethylbenzene	µg/L	<	0.1	4	4	4,100	0	<0.0010	3
Fluoranthene	µg/L	<	0.8	4	4	15	0	<0.0079	3
Hexachlorocyclopentadiene	µg/L	<	2.0	4	4	58	0	<0.0198	3
Nitrobenzene	µg/L	<	0.9	4	4	4.9	0	<0.0089	3
Thallium	µg/L	<	0.05	4	4	2	0	<0.0005	3
Toluene	µg/L	<	0.1	4	4	85,000	0	<0.0010	3
Tributylin	µg/L	<	0.1	4	4	0.0014	0	<0.0010	3
1,1,1-trichloroethane	µg/L	<	0.1	4	4	540,000	0	<0.0010	3

Pollutant	Units	Qualifier	MEC [1]	No. Samples	No. ND [2]	Co [3]	Cs [4]	X-obs [5]	Endpoint [6]
Acrylonitrile	µg/L	<	0.1	4	4	0.1	0	<0.0010	3
Aldrin	µg/L	<	0.02	4	4	0.000022	0	<0.000198	3
Benzene	µg/L	<	0.06	4	4	5.9	0	<0.0006	3
Benzidine	µg/L	<	3.0	4	4	0.000069	0	<0.029703	3
Beryllium	µg/L	<	0.05	4	4	0.033	0	<0.0005	3
Bis(2-chloroethyl) Ether	µg/L	<	0.9	4	4	0.045	0	<0.0089	3
Bis(2-ethlyhexyl) Phthalate	µg/L	<	3.0	4	4	3.5	0	<0.0297	3
Carbon Tetrachloride	µg/L	<	0.1	4	4	0.9	0	<0.0010	3
Chlordane	µg/L	<	0.3	4	4	0.000023	0	<0.002970	3
Chlorodibromomethane	µg/L	=	4.7	4	0	8.6	0	0.0465	2
Chloroform	µg/L	=	61	4	0	130	0	0.6040	2
DDT	µg/L	<	0.090	4	4	0.00017	0	<0.00089	3
1,4-Dichlorobenzene	µg/L	<	0.05	4	4	18	0	<0.0005	3
3,3'-Dichlorobenzidine	µg/L	<	2.0	4	4	0.0081	0	<0.0198	3
1,2-Dichloroethane	µg/L	<	0.4	4	4	28	0	<0.0040	3
1,1-Dichloroethylene	µg/L	<	0.1	4	4	0.9	0	<0.0010	3
Dichlorobromomethane	µg/L	=	17	4	0	6.2	0	0.1683	2
Dichloromethane	µg/L	<	0.2	4	4	450	0	<0.0020	3
1,3-Dichloropropene	µg/L	<	0.4	4	4	8.9	0	<0.0040	3
Dieldrin	µg/L	<	0.05	4	4	0.00004	0	<0.00050	3
2,4-Dinitrotoluene	µg/L	<	5.0	4	4	2.6	0	<0.0495	3

Pollutant	Units	Qualifier	MEC [1]	No. Samples	No. ND [2]	Co [3]	Cs [4]	X-obs [5]	Endpoint [6]
1,2-Diphenylhydrazine	µg/L	<	0.6	4	4	0.16	0	<0.0059	3
Halomethanes	µg/L	=	0.36	4	3	130	0	0.0036	2
Heptachlor	µg/L	<	0.050	4	4	0.00005	0	<0.00050	3
Heptachlor Epoxide	µg/L	<	0.090	4	4	0.00002	0	<0.00089	3
Hexachlorobenzene	µg/L	<	0.9	4	4	0.00021	0	<0.0089	3
Hexachlorobutadiene	µg/L	<	0.8	4	4	14	0	<0.0079	3
Hexachloroethane	µg/L	<	0.6	4	4	2.5	0	<0.0059	3
Isophorone	µg/L	<	0.9	4	4	730	0	<0.0089	3
N-Nitrosodimethylamine	µg/L	<	0.7	4	4	7.3	0	<0.0069	3
N-Nitrosodi-N-Propylamine	µg/L	<	0.8	4	4	0.38	0	<0.0079	3
N-Nitrosodiphenylamine	µg/L	<	1.0	4	4	2.5	0	<0.0099	3
PAHs	µg/L	<	8.0	4	4	0.0088	0	<0.0792	3
PCBs	µg/L	<	3.0	4	4	0.000019	0	<0.029703	3
TCDD equivalents	µg/L	=	12.02E-8	3	2	3.9E-09	0	1.2E-10	2
1,1,2,2-Tetrachloroethane	µg/L	<	0.8	4	4	2.3	0	<0.0008	3
Tetrachloroethylene	µg/L	<	0.1	4	4	2	0	<0.0010	3
Toxaphene	µg/L	<	2.0	4	4	0.00021	0	<0.0198	3
Trichloroethylene	µg/L	<	0.4	4	4	27	0	<0.0040	3
1,1,2-Trichloroethane	µg/L	<	0.08	4	4	9.4	0	<0.0008	3
2,4,6-Trichlorophenol	µg/L	<	1.0	4	4	0.29	0	<0.0099	3
Vinyl Chloride	µg/L	<	0.4	4	4	36	0	<0.0040	3

Pollutant	Units	Qualifier	MEC [1]	No. Samples	No. ND [2]	Co [3]	Cs [4]	X-obs [5]	Endpoint [6]

Table Notes

1. MEC = Maximum Effluent Concentration
2. ND = Non-Detected
3. Co = The concentration (water quality objective) to be met at the completion of initial dilution (from Table 3 of the 2019 Ocean Plan).
4. Cs = The background seawater concentrations (from Table 5 of the 2019 Ocean Plan).
5. X-obs = The maximum concentration after complete mixing, calculated according to Step 4 of Appendix VI of the Ocean Plan using the permitted dilution ratio (Dm) of 50 as follows: X-obs = (Ce + Dm * Cs)/(Dm + 1), unless otherwise noted.
6. RPA Results:

   Endpoint 1 = An effluent limitation must be developed for the pollutant. Monitoring is required.

   Endpoint 2 = An effluent limitation is not required for the pollutant. Monitoring may be required as appropriate.

   Endpoint 3 = RPA is inconclusive. Less than 3 detects or greater than 80% ND.

3.1. Water Quality-Based Effluent Limitations

Water quality objectives for pollutants determined to require an effluent limitation are as follows:

Table H-3. Applicable Water Quality Objectives – Ocean Plan

Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum	30-Day Average
Total Residual Chlorine	µg/L	2	8	60	--

Using the equation, Ce = Co + Dm (Co – Cs), effluent limitations are calculated as follows. Here, Dm is equal to 100 for each effluent limitation calculation. The effluent limitations established in this Order have been rounded to two significant figures.

Total Residual Chlorine

Ce = 2 + 100 (2 – 0) = 202 µg/L (6-Month Median)
Ce = 8 + 100 (8 – 0) = 808 µg/L (Daily Maximum)
Ce = 60 + 100 (60 – 0) = 6,060 µg/L (Instantaneous Maximum)

3.2. Facility Specific Effluent Limitation Summary

Effluent limitations applicable to the City of Mendocino City Wastewater Treatment Plant, for discharges from Discharge Points 001 (Monitoring Location EFF-001) are as follows:

Table H-4. Facility Specific Effluent Limitations – Discharge Point EFF-001

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Six-Month Median
Biochemical Oxygen Demand 5-day @ 20°C (BOD_5)	mg/L	30	45	--	--	--	--
Total Suspended Solids (TSS)	mg/L	30	45	--	--	--	--
pH	s.u.	--	--	--	6.0	9.0	--
Oil and Grease	mg/L	25	40	--	--	75	--
Settleable Solids	mL/L	1.0	1.5	--	--	3.0	--
Turbidity	NTU	75	100	--	--	225	--
Total Residual Chlorine [1]	mg/L	--	--	0.81	--	6.06	0.20

Table Notes

1. See section 8.13 of this General Order regarding compliance with chlorine residual effluent limitations.

3.2.1. **Percent Removal:** The average monthly percent removal of BOD_5 and total suspended solids shall not be less than 85 percent. Percent removal shall be determined from the monthly average value of influent wastewater concentration in comparison to the monthly average value of effluent concentration for the same constituent over the same time period as measured at Monitoring Locations INF-001 and EFF-001, respectively.

3.2.2. **Disinfection.** Disinfected effluent discharged from the Facility through Discharge Point 001 to the Pacific Ocean shall not contain bacteria exceeding the following concentrations, as measured at Monitoring Location EFF-001:

3.2.2.1. **Enterococci**

3.2.2.1.1. The 6-week rolling geometric mean of enterococci shall not exceed 30 colony forming units (CFU) per 100 mL; and

3.2.2.1.2. Not more than 10 percent of the samples collected in a calendar month exceed an MPN of 110 per 100 mL.

3.2.2.2. **Total Coliform Bacteria**

3.2.2.2.1. The median value of total coliform bacteria shall not exceed an MPN of 70 per 100 mL in a calendar month; and

3.2.2.2.2. Not more than 10 percent of the samples collected in a calendar month exceed an MPN of 230 per 100 mL.

3.2.2.3. **Fecal Coliform**

The 30-day geometric mean of fecal coliform density not to exceed 200 per 100 mL;

No sample shall exceed an MPN of 400 per 100 mL.

3.2.3. **Whole Effluent Toxicity (WET)**

There are two types of WET tests – acute and chronic. An acute toxicity test is conducted over a short time period and measures mortality. A chronic test is conducted over a longer period of time and may measure mortality, reproduction, and/or growth. The in-stream waste concentration for chronic toxicity for the City of Mendocino City is 1.0 percent effluent. The adjusted chronic toxicity value unit for the City of Mendocino City is 101.

Compliance with the accelerated monitoring and TRE provisions shall constitute compliance with the chronic aquatic toxicity requirements, as specified in the MRP (Attachment E, sections 5.1 and 5.2).

4. RECYCLED WATER PRODUCTION

4.1. **Recycling Specifications.** The City of Mendocino City is authorized to produce tertiary treated recycled water under section 5.3 of this General Order. Water recycling at the Mendocino High School athletic fields began in 1977 and was previously regulated under Waste Discharge Requirements and Master Recycling Permit, Order No. R1-2022-0001. The Permittee must enroll under State Water Board Order DWQ 2016-0068-DDW (or any subsequent revision) and receive approval for the continued application of recycled water.

4.1.1. **Disinfection Process Requirements**

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 section 5.4.2.1.1 of the General Order. In order to ensure compliance with disinfection water recycling specifications in section 5.4.2 of this Order. Site specific requirements include:

4.1.1.1. 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.

4.1.1.2. Recycled water not meeting the CT criteria shall not be discharged for irrigation at the athletic fields.

4.1.1.3. 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.

4.1.1.4. 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.

4.1.2. **Filtration Process Requirements**

4.1.2.1. **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.

4.1.2.2. **Filtration Rate.** When discharging to the recycled water system, the rate of filtration through the tertiary filters, as measured at Monitoring Location INT-001A, shall not exceed 5 gallons per minute per square foot of surface area, corresponding to a maximum filtration 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.

4.1.2.3. **Turbidity.** When discharging to the recycled water system, the effluent from the filtration system shall at all times be filtered such that the filtered effluent does not exceed any of the following specifications at Monitoring Location INT-001B prior to discharge to the disinfection unit:

4.1.2.3.1. An average of 2 Nephelometric Turbidity Units (NTU) during any 24-hour period;

4.1.2.3.2. 5 NTU more than 5 percent of the time during any 24-hour period; and

4.1.2.3.3. 10 NTU at any time.

5. LAND DISCHARGE SPECIFICATIONS

The City of Mendocino City is not authorized to discharge to land under this General Order.