

**ATTACHMENT L - MENDOCINO COUNTY WATER WORKS DISTRICT NO. 2,
ANCHOR BAY INDIVIDUAL REQUIREMENTS**

1. FACILITY INFORMATION.

1.1. The Mendocino County Water Works District No. 2 (hereinafter Permittee) is the owner and operator of the Anchor Bay Wastewater Treatment Facility (hereinafter Facility), a Publicly-Owned Treatment Works (POTW). The following table summarizes administrative information related to the facility.

Table L-1. Facility Information

WDID	1B83118OMEN
Permittee	Mendocino County Water Works District No. 2
Name of Facility	Anchor Bay Wastewater Treatment Facility
Facility Address	46890 Getchell Gulch Road Anchor Bay, CA 95445 Mendocino County
Facility Contact, Title and Phone	Chris Troyan, General Manager, (707) 785-2331
Authorized Person to Sign and Submit Reports	Chris Troyan, General Manager, (707) 785-2331
Mailing Address	PO Box 104 Gualala, CA 95445
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	No
Land Discharge Authorized	Yes
Facility Permitted Flow	0.0196 million gallons per day (mgd)
Facility Design Flow	0.0240 mgd (average dry weather treatment capacity)
Permitted Initial Dilution Factor (Dm)	35:1
Instream Waste Concentration	2.86%

Watershed	Mendocino Coast Hydrologic Unit
Receiving Water	Pacific Ocean
Receiving Water Type	Ocean Waters and Groundwater (Land Discharge to Forest Irrigation System)

2. FACILITY DESCRIPTION

The Permittee owns and operates a municipal wastewater treatment facility (WWTF) and associated wastewater disposal facility that serves a population of approximately 100 residents including 68 residences, the Anchor Bay Campground, and a commercial business district.

2.1. Description of Wastewater and Biosolids Treatment and Controls

The Facility treats domestic, commercial, and industrial wastewater and has an average dry weather design treatment capacity of 0.0240 mgd.

The Permittee's wastewater collection system consists of approximately 6,800 linear feet of gravity pipeline, 1,370 linear feet of pressurized force mains, 26 manholes, and two wastewater pump stations.

Headworks includes a bar screen for coarse screening and a Parshall flume for flow measurement. However, influent flow is currently calculated using pump hours and known pumping volume rather than direct measurement through the Parshall flume.

From headworks wastewater flows by gravity into primary treatment, consisting of a 320,000-gallon aerated pond for biological treatment using mechanical aeration. Effluent then moves to secondary treatment consisting of a 300,000-gallon settling pond, which contains a smaller pond aerator for further treatment.

The treated wastewater is transferred via a pump station to a serpentine chlorine contact chamber for disinfection. The disinfected effluent is then either directed to the land disposal system or dechlorinated for ocean discharge.

2.2. Discharge Points and Receiving Waters

Treated wastewater is discharged west of the Facility at Discharge Point 001 at 38°47' 51.7" N latitude and 123° 34' 17.1" W longitude to the Pacific Ocean via the outfall located in a sea cave. The outfall cave is located near the town of Anchor Bay at the south end of Fish Rock Beach has dimensions of approximately 31.6 feet in depth, 10.6 feet in width, and a height of 7-9 feet. The outfall pipe is located near the back of the cave and extends through the roof of the cave and is designed to provide a 35:1 initial dilution at a maximum discharge rate of 60 gallons per minute.

During the summer and other dry weather periods, disinfected secondary effluent is land applied to the forest irrigation area at Discharge Point 002. The irrigation area consists of 3.3 acres of forest land. The primary irrigation area is located in the northwest area of the Facility, and a second small irrigation area is located between the aeration pond and Getchell Gulch Road.

The Permittee's forest irrigation discharge has been characterized as a land discharge rather than water recycling because the discharge is to a natural area that is acclimated to obtaining its water needs during the rainy season and does not require irrigation during the dry season. A 1991 study determined that the forested area could be irrigated with the Permittee's secondary effluent in a manner that prevents runoff and percolation to groundwater. Based on that study, the irrigation capacity of the forest irrigation system is estimated to be between 6,000 and 10,000 gallons per day (gpd). Over the last 4 years, the average daily volume applied to the forest irrigation system over the irrigation season (April or May through October) has ranged from 1,080 gpd to 10,080 gpd.

2.3. Compliance Summary

The Permittee reported exceedances of effluent limitations while discharging to the Pacific Ocean during the term of Order No. R1-2021-0005, including for total suspended solids (3 excursions of the 85% removal limit); biochemical oxygen demand (2 excursion of the 85% removal limit), and total coliform (2 exceedances of the monthly median limit and 4 exceedances of the daily maximum limit).

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 J-3 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 November 2018 through December 2025.

Table L-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	=	1.1	1	0	8	3	2.9	3
Cadmium	µg/L	<	0.12	1	1	1	0	<0.0033	3
Chromium VI	µg/L	<	0.2	1	1	2	0	<0.0056	3
Copper	µg/L	=	4.2	3	0	3	2	2.1	3
Lead	µg/L	=	0.19	1	0	2	0	0.0053	3
Mercury	µg/L	<	0.033	2	2	0.04	0.0005	<0.013	3
Nickel	µg/L	=	3.2	1	0	5	0	0.089	3
Selenium	µg/L	=	0.75	1	2	15	0	0.021	3
Silver	µg/L	<	0.042	2	2	0.7	0.16	<0.1858	3
Zinc	µg/L	=	12	3	0	20	8	8.1	3
Cyanide	µg/L	=	5.9	1	0	1	0	0.1639	3
Ammonia (as N)	µg/L	=	7600	26	6	600	0	211	2
Total Chlorine Residual	µg/L	=	2030	397	0	2	0	56.38	1
Chronic Toxicity	TUc	=	0	1	1	1	0	0	3
Phenolic Compounds (non-chlorinated)	µg/L	=	0.12	1	0	30	0	0.0033	3
Chlorinated Phenolics	µg/L	=	0.13	1	0	1	0	0.0036	3
Endosulfan	µg/L	<	0.02	1	1	0.009	0	<0.0006	3
Endrin	µg/L	<	0.01	1	1	0.002	0	<0.0003	3
HCH	µg/L	<	0.015	1	1	0.004	0	<0.0004	3

Pollutant	Units	Qualifier	MEC ¹	No. Samples	No. ND ²	Co ³	Cs ⁴	X-obs ⁵	Endpoint ⁶
Acrolein	µg/L	<	5	1	1	220	0	<0.1389	3
Antimony	µg/L	=	0.77	1	0	1,200	0	0.0214	3
Bis(2-chloroethoxy) methane	µg/L	<	0.95	1	1	4.4	0	<0.0264	3
Bis(2-chloroisopropyl) ether	µg/L	<	0.0095	1	1	1,200	0	<0.0003	3
Chlorobenzene	µg/L	<	0.5	1	1	570	0	<0.0139	3
Chromium (III)	µg/L	<	0.25	1	1	190,000	0	<0.0069	3
Di-n-butyl Phthalate	µg/L	=	0.0022	1	0	3,500	0	0.0006	3
Dichlorobenzenes	µg/L	<	0.5	1	1	5,100	0	<0.0139	3
Diethyl Phthalate	µg/L	<	0.019	1	1	33,000	0	<0.0005	3
Dimethyl Phthalate	µg/L	<	0.19	1	1	820,000	0	<0.0005	3
4,6-dinitro-2-methylphenol	µg/L	<	4.7	1	1	220	0	<0.1306	3
2,4-dinitrophenol	µg/L	<	0.47	1	1	4	0	<0.0131	3
Ethylbenzene	µg/L	<	0.5	1	1	4,100	0	<0.0139	3
Fluoranthene	µg/L	<	0.0095	1	1	15	0	<0.0003	3
Hexachlorocyclopentadiene	µg/L	<	4.7	1	1	58	0	<0.1306	3
Nitrobenzene	µg/L	<	0.95	1	1	4.9	0	<0.0264	3
Thallium	µg/L	<	0.14	1	1	2	0	<0.0039	3
Toluene	µg/L	<	0.5	1	1	85,000	0	<0.0139	3
1,1,1-trichloroethane	µg/L	<	0.5	1	1	540,000	0	<0.0139	3
Acrylonitrile	µg/L	<	0.2	1	1	0.1	0	<0.0556	3

Pollutant	Units	Qualifier	MEC ¹	No. Samples	No. ND ²	Co ³	Cs ⁴	X-obs ⁵	Endpoint ⁶
Aldrin	µg/L	<	0.005	1	1	0.000022	0	<0.0001	3
Benzene	µg/L	<	0.5	1	1	5.9	0	<0.0139	3
Benzidine	µg/L	<	4.7	1	1	0.000069	0	<0.1306	3
Beryllium	µg/L	<	0.07	1	1	0.033	0	<0.0019	3
Bis(2-chloroethyl) Ether	µg/L	<	0.0047	1	1	0.045	0	<0.0001	3
Bis(2-ethylhexyl) Phthalate	µg/L	=	1.3	1	0	3.5	0	0.0061	3
Carbon Tetrachloride	µg/L	<	0.5	1	1	0.9	0	<0.0139	3
Chlordane	µg/L	<	0.05	1	1	0.000023	0	<0.0014	3
Chlorodibromomethane	µg/L	=	0.79	1	0	8.6	0	0.02	3
Chloroform	µg/L	=	25	1	0	130	0	0.7	3
DDT	µg/L	<	0.01	1	1	0.00017	0	<0.0003	3
1,4-Dichlorobenzene	µg/L	<	0.5	1	1	18	0	<0.0005	3
3,3'-Dichlorobenzidine	µg/L	<	0.5	1	1	0.0081	0	<0.0139	3
1,2-Dichloroethane	µg/L	<	0.5	1	1	28	0	<0.0139	3
1,1-Dichloroethylene	µg/L	<	0.5	1	1	0.9	0	<0.0139	3
Dichlorobromomethane	µg/L	=	7.5	1	0	6.2	0	0.2083	3
Dichloromethane	µg/L	<	0.5	1	1	450	0	<0.0139	3
1,3-Dichloropropene	µg/L	<	0.5	1	1	8.9	0	<0.0139	3
Dieldrin	µg/L	<	0.01	1	1	0.00004	0	<0.003	3
2,4-Dinitrotoluene	µg/L	<	0.024	1	1	2.6	0	<0.0007	3
1,2-Diphenylhydrazine	µg/L	<	0.95	1	1	0.16	0	<0.0264	3

Pollutant	Units	Qualifier	MEC ¹	No. Samples	No. ND ²	Co ³	Cs ⁴	X-obs ⁵	Endpoint ⁶
Halomethanes	µg/L	=	33.79	1	0	130	0	0.9386	3
Heptachlor	µg/L	<	0.01	1	1	0.00005	0	<0.0003	3
Heptachlor Epoxide	µg/L	<	0.01	1	1	0.00002	0	<0.003	3
Hexachlorobenzene	µg/L	<	0.5	1	1	0.00021	0	<0.0139	3
Hexachlorobutadiene	µg/L	<	0.0095	1	1	14	0	<0.0003	3
Hexachloroethane	µg/L	<	0.0095	1	1	2.5	0	<0.0003	3
Isophorone	µg/L	<	0.95	1	1	730	0	<0.0264	3
N-Nitrosodimethylamine	µg/L	<	0.95	1	1	7.3	0	<0.0264	3
N-Nitrosodi-N-Propylamine	µg/L	<	0.95	1	1	0.38	0	<0.0264	3
N-Nitrosodiphenylamine	µg/L	<	0.95	1	1	2.5	0	<0.0264	3
PAHs	µg/L	<	0.024	1	1	0.0088	0	<0.0007	3
PCBs	µg/L	<	0.5	1	1	0.000019	0	<0.0139	3
TCDD equivalents	µg/L	<	0.97e-6	1	1	3.9e-9	0	<0.000000019	3
1,1,2,2-Tetrachloroethane	µg/L	<	0.5	1	1	2.3	0	<0.0139	3
Tetrachloroethylene	µg/L	<	0.5	1	1	2	0	<0.0139	3
Toxaphene	µg/L	<	0.5	1	1	0.00021	0	<0.0139	3
Trichloroethylene	µg/L	<	0.5	1	1	27	0	<0.0139	3
1,1,2-Trichloroethane	µg/L	<	0.5	1	1	9.4	0	<0.0139	3
2,4,6-Trichlorophenol	µg/L	=	0.13	1	0	0.29	0	0.0036	3
Vinyl Chloride	µg/L	<	0.5	1	1	36	0	<0.0139	3

Pollutant	Units	Qualifier	MEC ¹	No. Samples	No. ND ²	Co ³	Cs ⁴	X-obs ⁵	Endpoint ⁶
<u>Table Notes</u>									
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: $X\text{-obs} = (C_e + D_m * C_s)/(D_m + 1)$, 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 L-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, $C_e = C_o + D_m (C_o - C_s)$, effluent limitations are calculated as follows. Here, Dm is equal to 50 for each effluent limitation calculation. The effluent limitations established in this Order have been rounded to two significant figures.

Total Residual Chlorine

$Ce = 2 + 35 (2 - 0) = 72 \mu\text{g/L} (0.072 \text{ mg/L})$ (6-Month Median)

$Ce = 8 + 35 (8 - 0) = 288 \mu\text{g/L} (0.29 \text{ mg/L})$ (Daily Maximum)

$Ce = 60 + 35 (60 - 0) = 2,160 \mu\text{g/L} (2.16 \text{ mg/L})$ (Instantaneous Maximum)

3.2. Facility Specific Effluent Limitation Summary

Effluent limitations applicable to the Anchor Bay Wastewater Treatment Facility, for discharges from Discharge Point 001 (Monitoring Location EFF-001) are as follows:

Table L-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	--
Turbidity	NTU	75	100	--	--	225	--
Settleable Solids	mL/L	1.0	1.5	--	--	3.0	--
Total Residual Chlorine ¹	mg/L	--	--	0.29	--	2.16	0.072

Table Notes

1. See section 7.12 of this Order regarding compliance with chlorine residual effluent limitations.

3.2.1. **Percent Removal:** The average monthly percent removal of BOD₅ 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**

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

3.2.2.3.2. 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 Anchor Bay Wastewater Treatment Plant is 2.86 percent effluent. The adjusted chronic toxicity value unit for the City of Crescent City is 35.

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

The Anchor Bay Wastewater Treatment Facility is not authorized to produce recycled water under this General Order.

5. LAND DISCHARGE SPECIFICATIONS

Land discharge specifications applicable to the Anchor Bay Wastewater Treatment Facility, for discharges from Discharge Points 002 (Monitoring Location LND-001) are as follows:

Table L-5. Facility Specific Effluent Limitations – Discharge Point EFF-001

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Six-Month Median
BOD ₅	mg/L	50	80	--	--	--	--
TSS	mg/L	50	80	--	--	--	--
pH	s.u.	--	--	--	6.0	9.0	--

5.1. **Disinfection.** Disinfected treated domestic wastewater discharged at Discharge Point 002 shall not contain total coliform bacteria exceeding the following concentrations, as measured at Monitoring Location LND-001:

5.1.1. The median value of total coliform bacteria shall not exceed an MPN of 23 per 100 mL using the bacteriological results of the last calendar month for which analyses have been completed; and

5.1.2. In no case shall total coliform bacteria exceed an MPN of 240 per 100 mL, using bacteriological results from any calendar month.

5.2. Land Discharge Requirements

5.2.1. The Permittee shall install, operate, and maintain the forest irrigation system in a manner that ensures compliance with all requirements of this Order.

5.2.2. The Permittee shall conduct periodic inspections of the irrigation system, facilities, and operations to monitor and ensure compliance with the conditions of this Order.

- 5.2.3. The Permittee shall operate the forest irrigation system in a manner that minimizes the potential for runoff. The Regional Water Board recognizes that even with diligent implementation of best management practices (BMPs), incidental runoff events may occur on occasion. Incidental runoff is defined as unintended small amounts of runoff from irrigation areas where appropriate irrigation rates and BMPs are being implemented. Examples of incidental runoff include unintended, minimal over-spray from sprinklers that escapes the irrigation area or accidental breakage of a sprinkler head on a properly maintained irrigation system.
- 5.2.4. Water leaving an irrigation area is not considered incidental if it is part of the facility design, if it is due to excessive application, if it is due to intentional overflow or application, or if it is due to negligence. Incidental runoff events are typically infrequent, low volume, accidental, not due to a pattern of neglect or lack of oversight and are promptly addressed.
- 5.2.5. The use of disinfected secondary effluent for forest irrigation shall not cause or contribute to an exceedance of any applicable water quality standard. The Permittee shall be responsible for ensuring that all discharges to the forest irrigation system meet all terms and conditions of this Order, including the quality standards in section 4.2.1 of this Order.
- 5.2.6. The Permittee shall discontinue delivery of effluent for irrigation during any period that there is reason to believe that land discharge specifications and/or requirements as specified in this Order are not being met. The delivery of treated effluent for irrigation shall not resume until corrections have been made to ensure compliance with all land discharge specifications and requirements.
- 5.2.7. Disinfected secondary effluent shall not be irrigated within 100 feet of any domestic water supply well.
- 5.2.8. The use of disinfected secondary effluent for irrigation shall not cause degradation of any water supply.
- 5.2.9. Irrigation areas shall be managed to prevent ponding and conditions conducive to the proliferation of mosquitoes and other disease vectors, and to avoid creation of a public nuisance or health hazard. The following practices shall be implemented, at a minimum:
- 5.2.10. Irrigation water shall infiltrate completely within a 48-hour period; and
- 5.2.11. Low-pressure and unpressurized pipelines and ditches that may be accessible to mosquitoes shall not be used to store effluent.
- 5.2.12. All areas where treated effluent is used for irrigation that are accessible to the public shall be posted with signs that are visible to the public, in a size no less than 4 inches high by 8 inches wide that include the following wording, or similar: "RECLAIMED WASTEWATER – DO NOT DRINK". These signs shall be

posted at least every 500 feet with a minimum of a sign at each corner and access road.

- 5.2.13. Treated effluent used for irrigation shall not be allowed to escape the use areas in the form of surface runoff. Where appropriate, practices and strategies to prevent the occurrence of runoff shall include, but not be limited to:
 - 5.2.13.1. A minimum 50-foot setback to all surface waters or implementation of BMPs designed to prevent the potential for runoff discharging to surface water;
 - 5.2.13.1.1. Proper design and aim of sprinkler heads;
 - 5.2.13.1.2. Proper design and operation of the irrigation system;
 - 5.2.13.1.3. Refraining from application during precipitation events;
 - 5.2.13.1.4. Application at a rate that does not exceed the demand of the vegetation being irrigated; and
 - 5.2.13.1.5. Maintenance of irrigation infrastructure (e.g., pipelines, pumps, etc.) to prevent and minimize breakage and leaks.
- 5.2.14. Direct or windblown spray, mist, or runoff from irrigation areas shall not enter dwellings, designated outdoor eating areas, or food handling facilities, roadways, or any other area where the public would accidentally be exposed to the effluent.
- 5.2.15. 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.
- 5.2.16. The main shutoff valve of the irrigation system meter shall be tagged with a warning sign indicating the use of treated wastewater effluent. The valve shall be equipped with an appropriate locking device to prevent unauthorized operation of the valve.