



State of Oregon
Department of
Environmental
Quality

Water Pollution Control Facilities Permit Renewal Fact Sheet City of Metolius

Permittee	City of Metolius 636 Jefferson Avenue Metolius, Oregon 97741
Existing Permit Information	File Number: 55940 Permit Number: 102589 Expiration Date: TBD
Permittee Contact	Kevin Raines Public Works Supervisor 561-546-5533 636 Jefferson Avenue Metolius, Oregon 97741
Facility Name & Location	Facility Name: City of Metolius Address: NW of Culver Hwy and Dover St. intersection Metolius, Oregon Lat/Long: 44.5936, -121.1698 County: Jefferson
LLID:	LLID: 1212134446671-6.4-N
Receiving Stream/Basin:	Nearest stream: Dry Canyon Sub Basin Name: Lower Deschutes WRD Basin Name: Deschutes
Proposed Action:	Permit Renewal Application Number: 950154 Date Application Received: February 1, 2021
Source Category:	Domestic
Sources Covered:	Domestic Wastewater and Recycled Water
Permit Type:	WPCF-Dom
Permit Writer	Anna Morgan-Hayes 541-246-4562 Date Prepared: December 21, 2023

WPCF Permit Renewal Fact Sheet

City of Metolius

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1. Introduction

As required by Oregon Administrative Rule 340-045-0037, this fact sheet describes the basis and methodology used in developing the permit. The permit is divided into several sections:

- Schedule A – Waste discharge limitations
- Schedule B – Minimum monitoring and report requirements
- Schedule C – Compliance conditions and schedules
- Schedule D – Special conditions
- Schedule F – General conditions

A summary of the major changes to the permit are listed below:

Changes to monitoring frequencies include influent and effluent flow meter calibration verification required as a component of proper operations and maintenance at the facility. However, reporting of verifications has been removed from Schedule B of the permit. A sludge depth survey is required during the permit cycle to provide planning for removal if needed.

2. Facility Description

2.1 Wastewater Facility

The wastewater treatment facility is located on a 63-acre parcel located west of the Madras-Culver Highway at the north end of Metolius. The system includes an influent pump station with two submersible pumps, and force main, approximately 1,500 feet long. There are three treatment lagoons which are operated in series: Lagoon #1 (aerated) is 1.52 acres, 10 feet deep, and has a 4.24 million gallon (MG) capacity; Lagoons #2 and #3 (facultative) are 0.7 acres each and six feet deep, and are lined with 60-mil HDPE. The storage pond is 9.29 acres and 13 feet deep. Disinfection is provided by sodium hypochlorite tablets. The average daily design flow is 0.126 MGD, and the peak daily design flow is 0.379 MGD.

In 2011, a new air diffusion system was installed in Lagoon #1. The diffusion system includes 2-15 HP rotary blowers, one in service and one in standby mode. The air is then distributed through twenty 220' lines that are laid across the bottom of the lagoon. In addition, there are 12 stainless steel discs, each with 100' of diffusion line spiraled into them, located at the inlet side of the lagoon. The discs are placed on the inlet side (east side) to provide more oxygen as the influent enters the lagoon. A dissolved oxygen (DO) sensor was also installed; however, the blowers are neither started nor stopped by the DO level in the lagoon.

Treated effluent is spray irrigated at agronomic rates typically from April through October (irrigation season) on a pasture grass crop. The permit requires the facility to meet Class C

recycled water standards according to OAR 340-055 prior to discharge into the irrigation storage lagoon. According to the water balance projections for the year 2020, 48.04 acres is needed for spray irrigation requiring 64 acre-feet or 20.90 million gallons for storage.

Figure 2-1: City of Metolius, Wastewater Treatment and Storage Lagoons Map

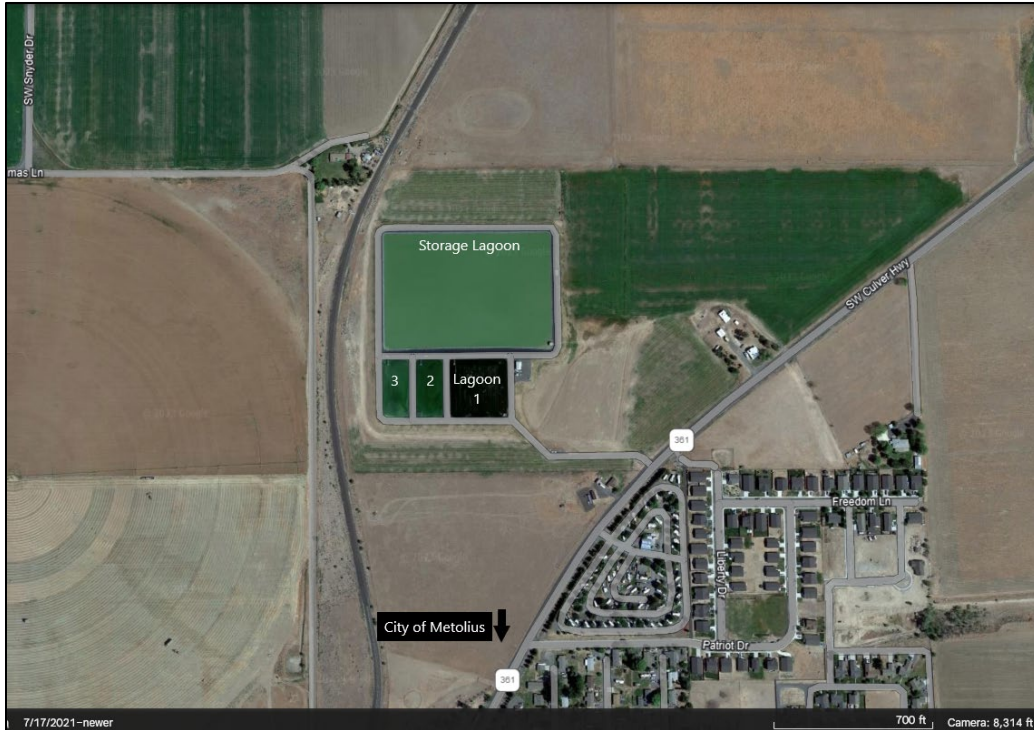


Figure 2-2: City of Metolius, Process Flow Diagram

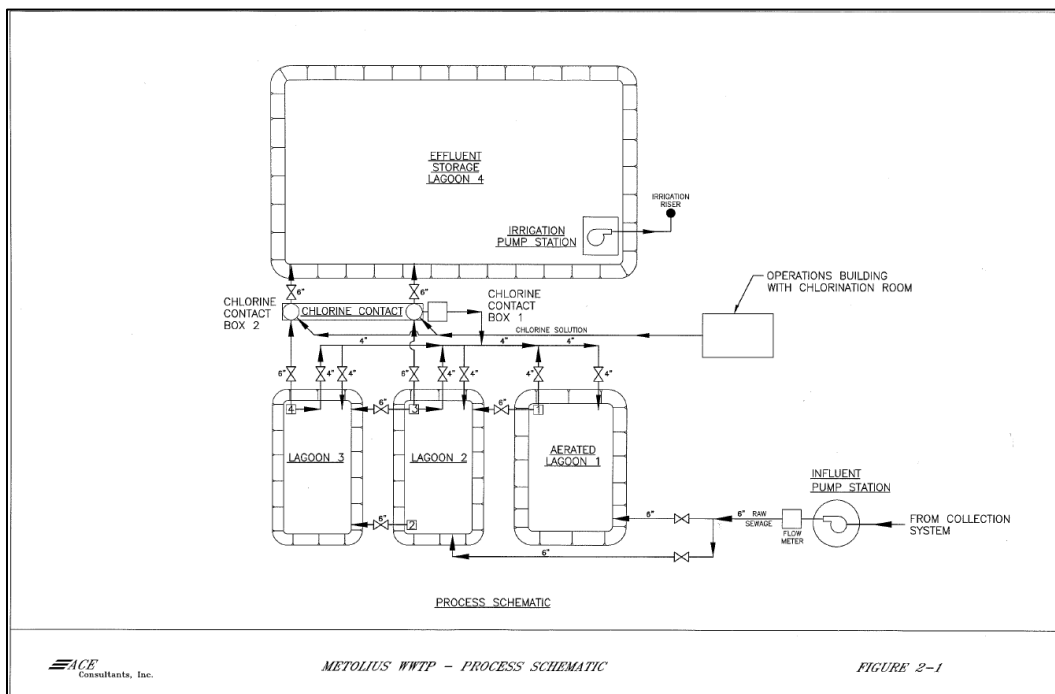


Table 2-1: List of Outfalls

Outfall Number	Type of Waste	Lat/Long	Design Flow¹ (mgd)
001	Facultative Lagoons	44.5936, -121.1698	0.126
002	Land application of recycled water	Specified in the recycled water use plan	
1. Design Flow = average daily design flow (City of Metolius Operations and Maintenance Manual, ACE Consultants, Inc., 2013).			

2.2 Compliance History

The facility was last inspected on August 15, 2023, as a result of that inspection and compliance history review the following enforcement was issued, however has not yet been resolved via DEQ’s Office of Compliance and Enforcement at the time of writing this permit:

2023-PEN-8783: Violations were cited for failing to submit required annual reports, failing to conduct monitoring required by Schedule B and exceedances of *E. coli* bacteria permit limits for effluent.

2.3 Biosolids

The term wastewater solids includes sewage sludge and biosolids. Sewage sludge refers to solids from primary, secondary, or advanced treatment of domestic wastewater that have not been treated or determined to be suitable for land application as fertilizer or soil amendment. The term biosolids refers to domestic wastewater treatment facility solids that have undergone adequate treatment and are suitable for application to the land as a fertilizer or soil amendment. Land application of biosolids must be performed in accordance with a DEQ-approved biosolids management plan (BSMP) and site authorization letter. Alternatively, a BSMP and site authorization are not required for disposal of wastewater solids in a landfill.

2.4 Groundwater

The route of contamination for nitrate-nitrogen to groundwater is through land application. The permit incorporates additional monitoring for Recycled Water application to ensure application of nitrogen at agronomic rates, therefore limiting potential groundwater contamination. Additionally, the lagoons are lined with 60-mil HDPE to prevent leakage.

2.5 Recycled Water

Land application of recycled water is not permitted under this permit without a DEQ-approved recycled water use plan. If the permit holder chooses to develop a recycled water program, a comprehensive recycled water use plan meeting the requirements in OAR 340-055 must be submitted to DEQ for review and approval; appropriate notifications must also be made to Oregon Health Authority (OHA) and Oregon Water Resources Division (OWRD).

2.6 Wastewater Classification

OAR 340-049 requires all permitted municipal wastewater collection and treatment facilities receive a classification based on the size and complexity of the systems. DEQ evaluated the classifications for the treatment and collection system, which are publicly available at:

<https://www.deq.state.or.us/wq/opcert/Docs/OpcertReport.pdf>.

3. Schedule A: Effluent Limit Development

No discharge to state waters is permitted. All wastewater is treated in facultative lagoons and must be irrigated only on DEQ-approved land application sites in accordance with a recycled water use plan. Prior to land application, recycled water must be treated by disinfection to at least Class C standards for beneficial use as defined in OAR 340-055.

All activities concerning recycled water must conform to a recycled water use plan approved by DEQ. Specific crops, application rates and buffers are included in the required recycled water use plan. All recycled water must be distributed on land, for dissipation by evapotranspiration and controlled seepage by following sound irrigation practices to prevent:

- i. Prolonged ponding of treated recycled water on the ground surface;
- ii. Surface runoff or subsurface drainage through drainage tile;
- iii. The creation of odors, fly and mosquito breeding, or other nuisance conditions;
- iv. The overloading of land with nutrients, organics, or other pollutant parameters; and
- v. Until otherwise approved by DEQ via a revised recycled water use plan, treated effluent must only be reused as Class C for beneficial uses.
- vi. Treated effluent must only be applied at site and crop specific agronomic loading rates.

This section has added language in the draft permit to include requirements for biosolids if removed for land application.

3.1 Recycled Water

Schedule A of the permit requires the permittee to apply recycled water according to a recycled water use plan. Schedule A also restricts the application of recycled water to prevent the following:

- Irrigating above agronomic rates,
- Adverse impact to groundwater,

- Offsite surface runoff or subsurface drainage through drainage tile,
- Creation of odors, fly and mosquito breeding, or other nuisance conditions.

3.2 Biosolids

Schedule A of the permit requires the facility to apply biosolids according to their biosolids management plan. In addition, Schedule A requires the following:

- Apply at or below agronomic rates.
- The permittee must have written site authorization for each location from DEQ before land applying and abide by the restrictions for each site.
- Prior to application, the permittee must ensure that biosolids meet one of the pathogen reduction standards under 40 CFR 503.32.
- The permittee must not apply biosolids containing pollutants in excess of the ceiling concentrations for the nine metals shown in Schedule A of the permit.

3.3 Groundwater

DEQ may evaluate the need for a full assessment of the facility's impact on groundwater quality if there is any evidence of an adverse impact resulting from the facilities operation or the facility fails to operate in accordance with permit conditions. Schedule A of the proposed permit includes a condition prohibiting adverse impacts to groundwater.

4. Schedule B: Monitoring and Reporting Requirements

Schedule B of the permit describes the minimum monitoring and reporting necessary to demonstrate compliance with the proposed effluent limits. Detailed monitoring frequency and reporting requirements are in Schedule B of the proposed permit. The required monitoring, reporting and frequency for many of the parameters are based on DEQ's monitoring and reporting matrix guidelines, permit writer judgment, reporting requirements for similar facilities of this type and size and to ensure the needed data is available for the next permit renewal.

The monitoring data provide DEQ with information to evaluate the performance of the wastewater treatment facility for influent, the lagoons, and effluent. The authority to require periodic reporting by permittees is found at ORS 468.065(5).

Monitoring requirements for influent flow, pH, BOD₅ (5-day Biochemical Oxygen Demand) and Total Suspended Solids (TSS) sampling are included in the permit for the City of Metolius to track influent loading to the system and as monitoring for performance of the treatment system.

Lagoon monitoring is required to maintain the perimeter and depth of lagoons. Additionally, a lagoon sludge survey is required once per permit cycle to assess the need for solids removal in the

lagoons. A lagoon leak test is required once per permit cycle to assess if leakage is causing impacts to groundwater.

Recycled water monitoring is required so that land application areas are managed in accordance with the permittees' DEQ-approved Recycled Water Use Plan.

5. Schedule C: Compliance Schedule

The permittee is expected to meet all effluent limits and therefore a compliance schedule is not needed.

6. Schedule D: Special Conditions

The proposed permit contains the following special conditions. The conditions include the following:

6.1 Inflow and Infiltration

A requirement to submit an updated inflow and infiltration plan to reduce groundwater and stormwater from entering the collection system.

6.2 Emergency Response and Public Notification Plan

A requirement to develop and submit an emergency and spill response plan or ensure the current one is current per General Condition B.8 in Schedule F.

6.3 Recycled Water Use Plan

A condition requiring the permit holder to maintain a recycled water use plan that meet the requirements in OAR 340-055-0025. The plan must also include location-specific information describing where and how recycled water is managed to protect public health and the environment.

6.4 Exempt Wastewater Reuse at the Treatment System

A condition that exempts the permit holder from the recycled water requirements in OAR 340-055, when recycled water is used for landscape irrigation at the treatment facility or for in-plant processes, such as in plant maintenance activities.

6.5 Wastewater Solids Annual Report

This condition requires the permittee to submit a Wastewater Solids Annual Report each year documenting removal of wastewater solids from the facility during the previous calendar year.

6.6 Biosolids Management Plan

A requirement to manage all biosolids in accordance with a DEQ-approved biosolids management plan and land application plan. The biosolids management plan and the land application plan must meet the requirements in OAR 340-050-0031 and describe where and how the land application of biosolids is managed to protect public health and the environment.

6.7 Wastewater Solids Transfers

A condition that allows the facility to transfer treated or untreated wastewater solids to other in-state or out-of-state facilities that are permitted to accept the wastewater solids.

6.8 Hauled Waste Control Plan

A condition that allows the acceptance of hauled waste according to a DEQ-approved hauled waste plan. The hauled waste plan ensures waste is not accepted that could negatively impact the treatment capabilities of the facility.

6.9 Lagoon Sludge Depth Survey

A condition requiring the permittee to submit a sludge depth survey report to ensure lagoon solids are maintained within design standards and accumulations do not negatively affect treatment capabilities.

6.10 Lagoon Leak Test

This condition requires the permittee to submit a Lagoon Leak Test Report one-time during the permit cycle as specified in the permit.

6.11 Operator Certification

The permit holder is required to have a certified operator consistent with the size and type of treatment plant covered by the permit per OAR 340-049-0005. This special condition describes the requirements relating to operator certification.

7. Schedule F: WPCF General Conditions

This schedule includes conditions and definitions that are applicable to all WPCF permits in Oregon of this type.

8. Next Steps

The City of Metolius has submitted a complete WPCF permit renewal application. DEQ will send the draft permit documents to the applicant for review and comment, and then proceed with a Category II permitting action for public notification as per OAR 340-045-0027.

Once comments are received and evaluated, DEQ will decide whether to issue the permit as proposed, to make changes to the permit, or to deny the permit. DEQ will notify the permittee of DEQ's decision. If substantive changes are made to the permit, then an additional public notice period may occur. DEQ may also revise this fact sheet or update the fact sheet through memorandum.