

DRAFT

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY  
PERMIT TO SUPPLY RECLAIMED WATER

PERMIT NUMBER: RW20-025

ID NUMBER: S-21009

In compliance with the Oklahoma Pollutant Discharge Elimination System (OPDES) Act, Title 27A OS § 2-6-201 *et seq.*, as amended, and the rules of the Oklahoma Department of Environmental Quality (DEQ) promulgated thereunder (see the Oklahoma Administrative Code (OAC) 252:627 and 252:656),

City of Medford  
615 N. Front Street  
Medford, OK 73759

is hereby authorized to supply treated municipal wastewater, also known as reclaimed water, for land application, from a wastewater treatment facility located at approximately

Latitude: 36° 47' 39.361" N [GPS: NAD 1983 CONUS]  
Longitude: 97° 43' 37.858" W [GPS: NAD 1983 CONUS]

for reuse within the boundaries of the permitted land application sites located at approximately

Parts of NW¼ and Part of NE¼, Section 27,  
Township 27 North, Range 5 West, Indian Meridian  
Grant County, Oklahoma

The reclaimed water shall be used solely for the purpose of irrigation at the permitted land application sites, in accordance with applicable DEQ regulations.

This is a new permit.

The issuance date of this permit is Month Date, Year.

This permit shall become effective Month Date, Year.

This permit and the authorization to supply reclaimed water shall expire at midnight Month Date, Year.

For the Oklahoma Department of Environmental Quality:

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Michael B. Moe, P.E., Manager  
Municipal Discharge and Stormwater Permit Section  
Water Quality Division

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Shellie R. Chard, Director  
Water Quality Division

**PART I. LIMITATIONS, MONITORING, AND REPORTING REQUIREMENTS**

**A. LIMITATIONS AND MONITORING REQUIREMENTS FOR CATEGORY 5 RECLAIMED WATER**

The following limits and monitoring requirements apply to the existing land application site (R02), and the three newly approved land application sites (R01, R03, and R04) upon completion of construction of reclaimed water supply lines and all appurtenances per permits to construct, Permit No. SLR000056200161 and Permit No. STR000027200845, which were deemed approvable on June 11, 2021.

**1. Authorized Land Application Sites for Category 5 Reclaimed Water**

Site ID	Legal Description	Method of Irrigation	Approximate Total Area (Acres)	Approximate Irrigated Area (Acres)
R02 (Existing)	Part of SE¼, Sections 27, Township 27 North, Range 5 West, I.M., Grant County, Oklahoma	Fixed Sprinkler	34.0	11.0
R01 (New)	Part of NW¼, Sections 27, Township 27 North, Range 5 West, I.M., Grant County, Oklahoma	Fixed Sprinkler	36.4	4.5
R03 (New)	Part of NW¼, Sections 27, Township 27 North, Range 5 West, I.M., Grant County, Oklahoma	Fixed Sprinkler		5.0
R04 (New)	Part of NW¼, Sections 27, Township 27 North, Range 5 West, I.M., Grant County, Oklahoma	Fixed Sprinkler		17.5

**2. Limitations and Monitoring Requirements for Category 5 Reclaimed Water <sup>a, b</sup>**

Site ID	Parameter	Average Daily Hydraulic Loading Rate (gallons/day)	Monitoring Requirements	Monitoring Frequency	Monitoring Location
R02 (Existing)	Flow (mgd)	6600 <sup>c</sup>	Record	Daily <sup>d</sup>	Pump Station
R01 (New)	Flow (mgd)		Record	Daily <sup>d</sup>	Pump Station
R03 (New)	Flow (mgd)		Record	Daily <sup>d</sup>	Pump Station
R04 (New)	Flow (mgd)		Record	Daily <sup>d</sup>	Pump Station

<sup>a</sup> Monthly Operating Reports (MORs) shall be maintained for the land application site. In accordance with OAC 252:627-5-1(d), the supplier of reclaimed water shall maintain MORs on-site for three years and make them available to the DEQ upon request.

<sup>b</sup> When there is no supply of reclaimed water for the entire day, report “0” in the MOR, and write “No Supply” in the comments column.

<sup>c</sup> Total hydraulic loading rate per permit to construct, Permit No. STR000027200845.

<sup>d</sup> In accordance with OAC 252:656-25-2(h), flow measurement for each land application site shall be accomplished by flow meters, or the calibration of pumps and installation of run-time meters. When no pumps are used, as with gravity flow lines, flow shall be calculated using the on and off times.

**3. Record Keeping Requirements for Commercial Fertilizer**

In compliance with OAC 252:627-3-4(b)(7), the permittee is required to keep record of the commercial fertilizer applied at each site for the life of the permit in the following format. These records shall be made available to the DEQ on request.

**Site Name:** \_\_\_\_\_

Date	Acreage Fertilized	Composition of Fertilizer (Nitrogen, Phosphorous, Potassium)	Quantity of Fertilizer Applied
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**B. RESTRICTIONS**

1. In accordance with OAC 252:627-3-4(b), irrigation with Category 5 reclaimed water is prohibited:
  - a. from a lagoon cell that receives raw sewage;
  - b. from any cell other than the final treatment (secondary/storage) cell;
  - c. on any food crop that may be consumed raw;
  - d. on grain crops such as corn, wheat and oats, less than 30 days before harvest;
  - e. at rates that allow a discharge from the permitted water reuse site;
  - f. within 100 feet of the permitted boundary of the site;
  - g. at a rate that exceeds the nitrogen and phosphorus rates for the crop grown at the site;
  - h. at a rate that results in phytotoxicity;
  - i. when the reclaimed water has a dissolved oxygen concentration of less than 2.0 mg/l;
  - j. during periods of precipitation or while the soil is saturated or frozen;
  - k. on land having a slope greater than five percent (5%); and
  - l. where there are berms or other barriers on a water reuse site that would cause the pooling or ponding of reclaimed water at the water reuse site, nor shall any berms or barriers impede the natural flow of stormwater from the site.
  
2. In accordance with OAC 252:656-27-2(b), systems shall be designed to ensure that direct and wind-blown spray from irrigation systems and other sources are confined to the designated irrigation areas. Category 5 reclaimed water systems shall also be designed to comply with the following minimum buffer zones and setback distances, with all distances being measured from the edge of the wetted perimeter of the irrigation area to the edge of the following features:
  - a. 300 feet from public wells;
  - b. 50 feet from private water wells;
  - c. 50 feet from creeks, lakes, ponds, and other water of the state;
  - d. 100 feet from adjacent property lines.
  
3. The City of Medford must obtain a permit to construct and a permit to supply reclaimed water from DEQ before supplying reclaimed water to any user(s) or sites not authorized in this permit. The City will provide information to DEQ on the intended use of the reclaimed water by the new user(s), and if applicable, information on specific land application site(s) demonstrating that the requirements of OAC 252:627-3-4 for Category 5 reclaimed water are met.

## **C. PREVENTION OF UNAUTHORIZED ACCESS TO LAND APPLICATION SITES**

### **1. Fencing Requirements**

OAC 252:627-3-4(a) for operation and maintenance of Category 5 reclaimed water requires prevention of unauthorized access to the sites. This requirement can be met by completely fencing land application sites.

### **2. Signage Requirements**

- a. In accordance with OAC 252:656-27-4(a), all valves, outlets and appurtenances in the distribution system of reclaimed water shall have a sign "CAUTION: RECLAIMED WATER - DO NOT DRINK."
- b. In accordance with OAC 252:627-3-4(a)(2), signs which describe the nature of the facility and advise against trespassing shall be posted on the perimeter of each permitted reclaimed water application site.

## **D. COMPLIANCE SCHEDULE**

In order for the City of Medford to supply and reuse Category 5 reclaimed water at three newly approved land application sites, the City must complete constructions of all reclaimed water supply lines, all appurtenances; and installations of all fencing and signage as approved and permitted in permits to construct, Permit No. SLR000056200161 and Permit No. STR000027200845.

## **E. RECORDKEEPING OF MONITORING RESULTS**

In accordance with OAC 252:627-5-1(b), (d), and (e), the supplier shall complete DEQ Form 627-001 – Water Reuse Monthly Operating Report for each land application site and maintain the MORs on-site for at least three years and make them available for review by DEQ upon request.

## **PART II. OTHER PERMIT REQUIREMENTS**

A. The following general provisions for supply of reclaimed water must be met in accordance with OAC 252:656-27-2:

### **1. Prohibition Against Cross Connections**

Neither the supplier nor the user shall allow physical connections between the reclaimed water lines and the public water supply lines. The supplier and the user shall follow the requirements of OAC 252:626-5-15 and OAC 252:656-9-2.

### **2. Flow Measuring Devices**

Supplier shall provide flow measuring devices to measure the amount of reclaimed water being distributed to each user. Flow measurement devices shall have recording, totalizing and instantaneous indicating capabilities.

## **B. DISTRIBUTION SYSTEMS**

The distribution system for reclaimed water shall be operated and maintained in accordance with the following requirements:

### **1. Piping**

All reclaimed water piping, valves, outlets and appurtenances in distribution systems shall be colored **purple** (Pantone 522) and shall be embossed or integrally stamped with a warning that includes the following: **“CAUTION: RECLAIMED WATER – DO NOT DRINK”**.

For all pipes, the warning shall be located on opposite sides of all pipes and repeated every three feet or less.

### **2. Flushing**

Reclaimed water distribution system shall be designed with all appurtenances necessary to adequately flush the distribution system to prevent slime growth and the regrowth of pathogens. Flushing plan shall be maintained and followed for all reclaimed water distribution system. The flushing system shall include provisions for disposal of flushed reclaimed water that prevent bypasses and discharges to waters of the state or elsewhere.

### **3. Maintenance**

The permittee shall maintain the structural integrity of all parts of the reclaimed water distribution system and maintain it in good working order.

### **4. Pump Stations**

The permittee shall ensure that pump stations are properly maintained and operated by doing the followings:

- a. Securing pump station(s) to prevent unauthorized access.
- b. Maintaining pump(s) in working condition.

- c. Keeping screen(s) free of debris to prevent clogging.
- d. Maintaining the required alarms in working order.
- e. Maintaining the required back-up generators and/or portable engine driven pumps in working order.
- f. Maintaining a complete set of operational instructions, emergency procedures and maintenance schedules.