

DRAFT

**OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
PERMIT TO SUPPLY RECLAIMED WATER**

**PERMIT NUMBER: RW24-011
ID NUMBER: S10835**

In compliance with the Oklahoma Pollutant Discharge Elimination System (OPDES) Act, Title 27A O.S. § 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),

Elmore City Public Works Authority (PWA)
P.O. Box 99
Elmore City, OK 73433

is hereby authorized to supply and reuse treated municipal wastewater, also known as reclaimed water, from the Elmore City Wastewater Treatment Facility (also referred to as TRL-5) located at approximately

Latitude: 34° 36' 47.808" N [GPS: NAD83]
Longitude: 97° 23' 31.794" W [GPS: NAD83]

for reuse of reclaimed water within the boundaries of the permitted land application site located at approximately

Parts of Sections 27, Township 2 North, Range 2 West, Indian Meridian (I.M.),
Garvin County, Oklahoma

in accordance with the limitations, monitoring requirements, and other conditions set forth in Parts I, II, III, and IV hereof.

The reclaimed water shall be used solely for 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 treated wastewater shall expire at midnight Month Date, Year.

For the Oklahoma Department of Environmental Quality:

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

George Russell IV, Director
Water Quality Division

PART I. LIMITATIONS, MONITORING, AND REPORTING REQUIREMENTS

A. LIMITATIONS AND MONITORING REQUIREMENTS FOR CATEGORY 5 RECLAIMED WATER

1. Authorized Land Application Sites for Category 5 Reclaimed Water

Beginning the effective date and lasting through the expiration date of the permit, the permittee is authorized to supply Category 5 reclaimed water for reuse at the following water reuse sites:

Site ID	Legal Description	Method of Irrigation	Approximate Total Area (Acres)	Approximate Irrigated Area (Acres)
R01 ^a	Parts of Sections 27, Township 2 North, Range 2 West, I.M., Garvin County, OK	Fixed Sprinkler	20.9	15

^a Owned and operated by the Elmore City PWA.

2. Limitations and Monitoring Requirements for Category 5 Reclaimed Water Reuse^{a, b}

The Category 5 reclaimed water shall be supplied from the final cell of the total retention lagoon system for irrigation of pastureland, in accordance with OAC 252:656 and OAC 252:627, and the following limitations and monitoring requirements:

Site ID	Parameter	Monitoring Requirements	Monitoring Frequency	Monitoring Location
R01	Flow (gpm)	Record	Daily ^c	Irrigation Pump Station

^a When there is no supply of reclaimed water for the entire day, report “0” in the Monthly Operating Report (MOR), and write “No Supply” in the comment column.

^b 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. To determine water flow, the facility shall estimate gallons per minute (GPM) based on the manufacturer’s specifications for the irrigation pump at site R01. The formula used for this estimate is:

$$GPM = (RPM \times \text{displacement volume}) / 231$$

3. Prevention of Unauthorized Access to Land Application Sites

The permittee shall ensure that all permitted land application sites are completely fenced at all times in accordance with OAC 252:627-3-4(a).

4. Signage Requirements

Beginning from the effective date of the permit, the permittee shall comply with the following signage requirements:

- a. All reclaimed water piping located outside the fenced water reuse area shall be identified with above-ground signs containing the language “CAUTION: RECLAIMED WATER - DO NOT DRINK” together with the international “Do Not Drink” symbol:
 - i. every 300 feet.
 - ii. at every change in direction.
 - iii. in the road easement on both sides of the road at every road crossing; and
 - iv. at every outlet.

- 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.

B. RESTRICTIONS FOR USING RECLAIMED WATER

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 one specified in the permit;
 - c. on any food crop that may be consumed raw;
 - d. on grain crops such as corn, wheat and oats, less than thirty (30) days before harvest;
 - e. at rates that allow a discharge from the permitted water reuse site;
 - f. within one hundred feet (100') 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. three hundred feet (300') from public wells;
 - b. fifty feet (50') from private water wells;
 - c. fifty feet (50') from creeks, lakes, ponds, and other water of the state;
 - d. one hundred feet (100') from adjacent property lines.
3. The permittee 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 permittee shall 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. RECORDKEEPING OF MONITORING RESULTS, OPERATION, AND MAINTENANCE

1. Monthly Operating Reports

- a. The permittee shall complete DEQ Form 627-001 "Water Reuse System Monthly Operation Report" ("MOR") for each month for each reuse site in accordance with OAC 252:627-5-1(b). The permittee shall **retain MORs on site for 3 years**, as well as all records, including all maintenance records, and make them available for review by DEQ upon request in accordance with OAC 252:627-5-1(d) and (e).
- b. The permittee shall complete DEQ Form 619-001 "Total Retention Lagoon Monthly Operation Report" ("MOR") for each month for each reuse site. The permittee shall **retain MORs on site for 3 years** and make them available for review by DEQ upon request in accordance with OAC 252:619-1-4(f).

2. Record Keeping Requirements for Commercial Fertilizer

In compliance with OAC 252:627-3-4(b)(7), the permittee is required to keep a 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, Phosphorus, Potassium)	Quantity of Fertilizer Applied (lb)

D. RE-OPENER CLAUSE

This permit may be reopened for modification and/or reissuance to require additional or more frequent monitoring, additional or more stringent limits, additional operational controls, or additional reporting and recordkeeping requirements where actual or potential threats to public health or the environment are determined to be the result of the permittee's operation of the water reuse system or where the water reuse system is not being properly operated and maintained in accordance with OCA 252:627. Modification and/or reissuance of the permit shall comply with the regulations listed in OAC 252:004.

E. SCHEDULE OF COMPLIANCE FOR SIGNAGE

Not applicable.

PART II. OTHER PERMIT REQUIREMENTS

A. The following general provisions for supply of reclaimed water (treated wastewater) 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 (treated wastewater) 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 treated 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 (treated wastewater) 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 (3') or less.

2. **Treated wastewater flushing system.** The treated wastewater distribution system shall be designed with all appurtenances necessary to adequately flush the distribution system to prevent slime growth and the regrowth of pathogens. The flushing plan shall be maintained and followed for all treated wastewater distribution systems. The flushing system shall include provisions for the disposal of flushed treated wastewater 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 treated wastewater 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 following:
 - 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.