

DRAFT

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
PERMIT TO SUPPLY RECLAIMED WATER

PERMIT NUMBER: RW21-010
ID NUMBER: S11202

PART I

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),

Elgin Public Works Authority
8183 State Hwy 17
Elgin, OK 73538

is hereby authorized to supply and reuse treated municipal wastewater, also known as reclaimed water, for land application at the facility located at approximately

Latitude: 34° 46' 24.89" N [GPS: NAD83]
Longitude: 98° 16' 38.18" W [GPS: NAD83]

and within the boundaries of the permitted land application sites located at approximately

SW¹/₄, of Section 32,
Township 4 North, Range 10 West, Indian Meridian
Comanche 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 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 Permit Section
Water Quality Division

Shellie R. Chard, Director
Water Quality Division

A. LIMITATIONS AND MONITORING REQUIREMENTS FOR CATEGORY 5 RECLAIMED WATER

1. Authorized Land Application Sites

Beginning the effective date and lasting through the expiration date of the permit, the City of Elgin - “the supplier”, is authorized to supply treated wastewater as Category 5 reclaimed water for land application at the following site(s), which is also owned and operated by the City of Elgin – “the user”, in accordance with OAC 252:627 and OAC 252:656:

Authorized Land Application Site for Category 5 Reclaimed Water

Site ID	Legal Description	Method of Irrigation	Approximate Total Area (Acres)	Approximate Irrigated Area (Acres)
R01	NE¼, SW¼, of Section 32, Township 4 North, Range 10 West, IM Comanche County, Oklahoma	Sprinkler	64.0	44.0
R02	W½, SE¼, SW¼, of Section 32, Township 4 North, Range 10 West, IM Comanche County, Oklahoma	Sprinkler	28.0	21.0

2. Limitations and Monitoring Requirements

In accordance Appendix A of OAC 252:627, the following monitoring requirements are established for the permit to supply Category 5 reclaimed water by the supplier for land application at sites listed above.

Limitations and Monitoring Requirements for Category 5 Reclaimed Water

Site ID	Parameter	Monitoring Requirements ^{a, b}	Monitoring Frequency	Monitoring Location
R01	Flow (mgd)	Record	Daily ^c	Pump Station
R02	Flow (mgd)	Record	Daily ^c	Pump Station

^a Separate Monthly Operating Reports (MORs) shall be maintained for each site.

^b 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.

^c 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.

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 3 years and make them available for review by DEQ upon request.

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 DEQ on request.

Site Name: _____

Date	Acreage Fertilized	Composition of Fertilizer (Nitrogen, Phosphorous, Potassium)	Amount of Fertilizer Applied

4. 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).

5. Signage Requirements

Beginning from the effective date of the permit, the permittee shall comply with the following 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.

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 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 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 5 percent; 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; and
 - d. 100 feet from adjacent property lines.
3. The City of Elgin 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 of Elgin 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. SCHEDULE OF COMPLIANCE FOR SIGNAGE

Not applicable to this facility.

D. RECORDKEEPING OF MONITORING RESULTS

In accordance with OAC 252:627-5-1(d), the supplier of reclaimed water shall maintain MORs on-site for 3 years and make them available to DEQ upon request.

E. RECORDKEEPING OF ALL REPORTS

In accordance with OAC 252:627-5-1(e), the supplier of reclaimed water shall keep all records, including all maintenance records on-site for at least 3 years and make them available to DEQ upon request.

F. 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 follow regulations listed at OAC 252:004.

PART II. OTHER PERMIT REQUIREMENTS

A. GENERAL PROVISIONS

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.
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 3 feet or less.

2. **Treated wastewater flushing system.** 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. Flushing plan shall be maintained and followed for all treated wastewater distribution systems. The flushing system shall include provisions for 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 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.