

DRAFT

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
PERMIT TO SUPPLY RECLAIMED WATER

PERMIT NUMBER: RW19-008
ID NUMBER: S20504

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),

Oklahoma Panhandle State University
P.O. Box 430, 323 West Eagle Blvd.
Goodwell, OK 73939

is hereby authorized to supply and reuse treated municipal wastewater, also known as reclaimed water, from the Oklahoma Panhandle State University Lagoon Wastewater Treatment Plant for land application at the facility located at approximately

Latitude: 36° 36' 4.320" N [GPS: NAD 1983 CONUS]
Longitude: -101° 37' 1.74" W [GPS: NAD 1983 CONUS]

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

Site R01: NW¼ of Section 36, Township 2 North, Range 13 East,
Cimarron Meridian (CM), Texas County, Oklahoma

Site R02: W ½ of Section 31, Township 2 North, Range 14 East,
Cimarron Meridian (CM), Texas 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 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 Permits Section
Water Quality Division

Shellie R. Chard, 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

Site ID	Legal Description	Method of Irrigation	Approximate Total Area (Acres)	Approximate Irrigated Area (Acres)
R01 (OPSU West)	NE¼ of Section 36, Township 2 North, Range 13 East, C.M., Texas County, Oklahoma	Center Pivot	120	80
R02 (OPSU East)	W½ of Section 31, Township 2 North, Range 14 East, C.M., Texas County, Oklahoma	Center Pivot	120	110

2. Limitations and Monitoring Requirements for Category 5 Reclaimed Water Reuse

Beginning the effective date of the permit through the expiration date of the permit, the permittee is authorized to supply treated wastewater for farmland irrigation in accordance with OAC 252:656 and OAC 252:627 and the following limitations and monitoring requirements:

Site ID	Parameter	Monitoring Requirements	Monitoring Frequency	Sample Type	Monitoring Location
R01	Flow (gpd)	Record ^a	Daily ^c	Totalized ^b	Pump Station
R02	Flow (gpd)	Record ^a	Daily ^c	Totalized ^b	Pump Station

^a 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.

^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. When no pumps are used, as with gravity flow lines, flow shall be calculated using the on and off times.

The supplier shall complete DEQ Form 619-001 Total Retention Lagoon Monthly Operation Report and DEQ Form 627-001 – Water Reuse Monthly Operating Report for the land application site and maintain the MORs on-site for at least three (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 the DEQ on request.

Site Name: _____

Date	Acreage Fertilized	Composition of Fertilizer (Nitrogen, Phosphorus, Potassium)	Quantity of Fertilizer Applied
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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 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)(3), all reclaimed water piping located outside the fenced land application 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

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. OPSU 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. OPSU 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. RECORDKEEPING OF MONITORING RESULTS

The Monthly Operating Reports (MORs) shall be maintained by the supplier, Oklahoma Panhandle State University, retained for three (3) years, and made available to the DEQ upon request.

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.** 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.