

DRAFT

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
PERMIT TO SUPPLY RECLAIMED WATER

PERMIT NUMBER: RW24-003
ID NUMBER: S21702

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),

Fin and Feather Resort
445889 Highway 10A
Gore, OK 74435

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

Latitude: 35° 37' 38.000" N [GPS: NAD 1983 CONUS]
Longitude: 95° 04' 40.000" W [GPS: NAD 1983 CONUS]

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

NW¼, SE¼, SE¼ of Section 4,
Township 13 North, Range 21 East, I.M.
Sequoyah 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

George Russell IV, Director
Water Quality Division

PART I. LIMITATIONS, MONITORING, AND REPORTING REQUIREMENTS

A. LIMITATIONS AND MONITORING REQUIREMENTS 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:

1. Authorized Land Application Sites

Site ID	Legal Description	Method of Irrigation	Approximate Total Area (Acres)	Approximate Irrigated Area (Acres)
R01	Part of Section 4, Township 13 North, Range 21 East, I.M., Sequoyah County, Oklahoma	Irrigation gun	17.27	10.06

2. Limitations and Monitoring Requirements

The permittee is authorized to supply Category 5 reclaimed water (municipal wastewater after primary treatment in a total retention lagoon system) (TRL-5) in accordance with OAC 252:627 and OAC 252:656. The Category 5 reclaimed water shall be supplied from the final storage cell of the total retention lagoon system for irrigation of pastureland in accordance with OAC 252:656, OAC 252:627, and the following limitations and monitoring requirements:

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

- ^a. Site owned and operated by the Fin and Feather Resort.
- ^b. 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’s column.
- ^c. Flow rate shall be estimated based on the manufacturer's specifications for the irrigation gun, which has an orifice size of 9/16 inch and operates at a pressure of 32 psi. The estimated flow calculation is as follows: 51 gpm x 60 min/hour x [hours/day of pumping duration] = [gallons/day].
- ^d. Reclaimed water is supplied from the WWTP to Site R01 using a portable pump powered by a power takeoff from a 70 hp tractor.

3. Prevention of Unauthorized Access to Water Reuse Site

The permittee shall ensure that all permitted water reuse sites are always completely fenced with a barbed wire fence to prevent unauthorized access to the reuse site in accordance with OAC 252:627-3-4(a). Fences with locked gates are currently installed and shall be maintained at both the WWTF and Site R01.

4. Signage Requirements

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. Signs which describe the nature of the facility and advise against trespassing shall be posted on the perimeter of each permitted water reuse site.

B. RESTRICTIONS FOR USING RECLAIMED WATER

1. **The permittee** shall not irrigate with Category 5 reclaimed water:
 - 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%; 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. The system 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 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 must 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

The permittee shall 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 (lbs)

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 follow regulations listed at OAC 252:004.

E. SCHEDULE OF COMPLIANCE FOR SIGNAGE

The permittee shall achieve compliance in accordance with the following schedule:

	Task	Date Due
1.	In accordance with OAC 252:627-3-4(a)(2), signs that describe the nature of the facility and advise against trespassing shall be posted on the perimeter of each permitted water reuse site.	6 months from the permit’s effective date
2.	Send notice of completion of Task 1 to the ECLS Total Retention Lagoon Section of DEQ, with a copy to the ECLS Sallisaw Office.	7 months from the permit’s effective date

PART II. OTHER PERMIT REQUIREMENTS

A. GENERAL PROVISIONS

The following general provisions for the 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.** In lieu of providing flow measuring devices to measure the amount of reclaimed water being distributed to each water reuse site, the permittee shall estimate flow using the procedure described in footnote c to the table in Section I.A.2 above.

B. OPERATION AND MAINTENANCE OF THE DISTRIBUTION SYSTEMS

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

1. **Piping.** Any new reclaimed water (treated wastewater) piping, valves, outlets, and appurtenances in distribution systems installed after the effective date of the permit 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 new pipes installed after the effective date of the permit, the warning shall be located on opposite sides of all new pipes and repeated every three feet (3’) or less.

The existing piping, valves, outlets and appurtenances in the distribution system were installed prior to July 1, 2012, and thus are exempt from the above requirement in accordance with OAC 252:656-27-4(a)(3).

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

The permittee meets this requirement by allowing reclaimed water in their distribution system (Moveable Lines, Distribution Line, and Supply Line) to drain by gravity back into the final lagoon cell when an irrigation event is completed. Any reclaimed water that might remain in the Moveable Lines after drainage of the system shall be applied to the irrigation area as each 30-foot segment of the Moveable Lines is disconnected from the system.

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 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.