

Draft of April 14, 2025

**AUTHORIZATION TO DISCHARGE UNDER THE  
OKLAHOMA POLLUTANT DISCHARGE ELIMINATION SYSTEM**

**OPDES Permit Number: OK0031577  
Permit to Supply Reclaimed Water Number: RW20-005  
Facility ID Number: S21661**

**PART I**

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) adopted thereunder (see the Oklahoma Administrative Code (OAC) 252:606, OAC 252:627, and OAC 252:656)); the Federal Clean Water Act (CWA), Public Law 95-217 (33 USC 1251, *et seq.*), Section 402; and the National Pollutant Discharge Elimination System (NPDES) regulations at Title 40 of the Code of Federal Regulations (C.F.R.) Parts 122, 124, and 403),

Big Cabin Public Works Authority  
P.O. Box 161  
Big Cabin, OK 74332

is hereby authorized to discharge treated wastewater and supply reclaimed water for reuse from the Big Cabin Wastewater Treatment Plant located at approximately

W½, W½ of Section 25,  
Township 24 N, Range 19 E, IM  
Craig County, Oklahoma  
or at NS 4360 Rd, Big Cabin, OK 74332

to receiving waters: Unnamed tributary to Rock Creek at the point located at approximately

Latitude: 36° 30' 57.059" N [GPS: NAD83]  
Longitude: 95° 15' 40.985" W [GPS: NAD83]

Water Body ID No. OK121600020180\_00

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

This permit replaces and supersedes the previous permit issued on June 14, 2021.

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

This permit shall become effective **Month Date Year**.

This permit and authorization to discharge 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 Permits Section  
Water Quality Division

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George Russell IV, Director  
Water Quality Division

**A. Effluent Limitations and Monitoring Requirements (Outfall 001)**

Beginning the effective date of the permit through the expiration date of the permit, the permittee is authorized to discharge treated wastewater during November – May periods in accordance with the following limitations. **Discharge is NOT permitted during June – October periods.**

Effluent Characteristic		Discharge Limitations				Monitoring Requirements	
		Mass Loading (lb/day)	Concentration (mg/L, unless otherwise specified)			Frequency	Sample Type
			Monthly Avg.	Monthly Avg.	Weekly Avg.		
Flow (mgd) [STORET: 50050]	Nov – May	---	Report	---	Report	5 per week	Instantaneous
Biochemical Oxygen Demand -5 Day (BOD <sub>5</sub> ) [STORET: 00310]	Nov – May	27.5	30	45	---	2 per month	Grab
Total Suspended Solids (TSS) [STORET: 00530]	Nov – May	82.6	90	135	---	2 per month	Grab
pH (standard unit) [STORET: 00400]	Nov – May	---	6.5 – 9.0			2 per week	Grab

<sup>a</sup> Monthly data for *E. coli* is reported as geometric mean of all samples in that month.

**Sampling Point**

Samples taken for compliance with the monitoring requirements specified above shall be taken at the discharge from the final treatment.

**Year-round Requirements**

- There shall be no discharge of floating solids or visible foam in other than trace amounts.
- There shall be no discharge of a visible sheen of oil or globules of oil or grease on or in the water. Oil and grease shall not be present in quantities that adhere to stream banks and coat bottoms of water courses, or which cause deleterious effects to the biota.
- All monitoring and reporting requirements shall also be in compliance with Part III of this permit.

**B. Compliance Schedule for Discharge**

Not applicable.

**C. Sanitary Sewer Overflows**

Any bypass in the collection system [sanitary sewer overflow (SSO)] shall be reported in accordance with Part III.B.6 of this permit.

**D. Reporting of Monitoring Results**

Monitoring results shall be reported in accordance with the provisions of Part III.B.5 of the permit. Monitoring results obtained during the previous month shall be summarized and electronically reported

on an electronic Discharge Monitoring Report (eDMR) form due to the Oklahoma Department of Environmental Quality, Water Quality Division, Wastewater Compliance Tracking Section no later than the 15<sup>th</sup> day of the month following the completed monthly test. If no discharge occurs during the reporting period, an eDMR form stating "No Discharge" shall be electronically submitted according to the above schedule. Instructions on how to register as a Preparer or Signatory for eDMRs, as well as how to prepare and submit eDMRs, can be found on DEQ’s website at <https://oklahoma.gov/deq/divisions/water-quality/wastewater-stormwater/electronic-reporting.html> Assistance is also available by contacting DEQ at (405) 702-8100 or email [deqreporting@deq.ok.gov](mailto:deqreporting@deq.ok.gov).

The first report is due on the 15<sup>th</sup> of MONTH, 2026.

**E. Reclaimed Water Limitations and Monitoring Requirements for Category 5 Water Reuse**

Beginning the effective date and lasting through the expiration date of the permit, the Big Cabin Public Works Authority–, “the supplier”, is authorized to supply treated wastewater as Category 5 reclaimed water from the Big Cabin Wastewater Treatment Plant for reuse at the following land application sites, in accordance with OAC 252:627 and OAC 252:656 and the following limitations:

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

Land Application Site		Total Area (Acres)	Irrigated Area (Acres)	Approx. Location of Irrigation Pivot	
Site	Legal Description			Latitude	Longitude
R01 <sup>a, b</sup> (North)	NW¼, NW¼, SW¼ Section 25, Township 24 North, Range 19 East, IM Craig County, Oklahoma	7.39	7.0	36° 31' 52" N (GPS: 1983 NAD)	95° 14' 13" W (GPS: 1983 NAD)
R02 <sup>a, b</sup> (Middle)	NW¼, NW¼, SW¼ Section 25, Township 24 North, Range 19 East, IM Craig County, Oklahoma	3.93	3.1	36° 31' 48" N (GPS: 1983 NAD)	95° 14' 13" W (GPS: 1983 NAD)
R03 <sup>a, b</sup> (South)	NW¼, NW¼, SW¼ Section 25, Township 24 North, Range 19 East, IM Craig County, Oklahoma	3.98	3.2	36° 31' 44" N (GPS: 1983 NAD)	95° 14' 13" W (GPS: 1983 NAD)
R04 <sup>a, b</sup> (Circle)	E½, E½, Section 25, Township 24 North, Range 19 East, IM Craig County, Oklahoma	64.8	43.3	36° 31' 57" N (GPS: 1983 NAD)	95° 14' 43" W (GPS: 1983 NAD)
R05 <sup>a, b</sup> (Half Circle)	W½, E½ Section 25, Township 24 North, Range 19 East, IM Craig County, Oklahoma	37.1	18.3	36° 31' 53" N (GPS: 1983 NAD)	95° 14' 25" W (GPS: 1983 NAD)

<sup>a.</sup> Site owned and operated by the Big Cabin Public Works Authority.  
<sup>b.</sup> Can only land apply to one site at a time.

**2. Limits and Monitoring Requirements for Category 5 Reclaimed Water**

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

Site <sup>a</sup>	Parameter	Monitoring Requirements <sup>a</sup>	Monitoring Frequency <sup>b</sup>	Sample Type	Monitoring Location
R01	Flow (gpd)	Record	Daily	Totalized	Pump Station
R02	Flow (gpd)	Record	Daily	Totalized	Pump Station
R03	Flow (gpd)	Record	Daily	Totalized	Pump Station
R04	Flow (gpd)	Record	Daily	Totalized	Pump Station
R05	Flow (gpd)	Record	Daily	Totalized	Pump Station

- <sup>a</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>b</sup> 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. Prevention of Unauthorized Access to Water Reuse Site**

The permittee shall ensure that all permitted water reuse site(s) are always completely fenced 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 should be maintained at both the WWTF and Sites R01-R05

**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. All signs which describe the nature of the facility and advice against trespassing shall be posted on the perimeter of each permitted water reuse site(s). The required signage is currently posted and shall be maintained at the water reuse site(s).

**B. RESTRICTIONS FOR USING RECLAIMED WATER**

- a. The permittee shall not irrigate with Category 5 reclaimed water:
  - i. from a lagoon cell that receives raw sewage;
  - ii. from any cell other than the one specified in the permit;
  - iii. on any food crop that may be consumed raw;
  - iv. on grain crops such as corn, wheat and oats, less than thirty (30) days before harvest;
  - v. at rates that allow a discharge from the permitted water reuse site;
  - vi. within one hundred feet (100') of the permitted boundary of the site;

- vii. at a rate that exceeds the nitrogen and phosphorus rates for the crop grown at the site;
  - viii. at a rate that results in phytotoxicity;
  - ix. when the reclaimed water has a dissolved oxygen concentration of less than 2.0 mg/l;
  - x. during periods of precipitation or while the soil is saturated or frozen;
  - xi. on land having a slope greater than five percent (5%); and
  - xii. 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.
- b. They 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:
- i. three hundred feet (300') from public wells;
  - ii. fifty feet (50') from private water wells;
  - iii. fifty feet (50') from creeks, lakes, ponds, and other water of the state;
  - iv. one hundred feet (100') from adjacent property lines.
- c. The permittee must obtain a permit to construct infrastructure and a permit to supply 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**

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).

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

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 (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 follow regulations listed at OAC 252:004.

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

### **A. CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS**

1. The following pollutants shall not be introduced into a Publicly Owned Treatment Works (POTW) facility, defined in 40 C.F.R. § 403.3(q) “as any devices and systems used in storage, treatment, recycling, and reclamation of municipal sewage and industrial wastes of a liquid nature. It also includes sewers, pipes, and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality as defined in Section 502(4) of the CWA, which has jurisdiction over the Indirect Discharges to and from such treatment works.”
  - a. Pollutants which create a fire or explosion hazard in the POTW facility, including, but not limited to, wastestreams with a closed cup flashpoint of less than 60°C (140°F) using the test methods specified in 40 C.F.R. § 261.21;
  - b. Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the works are specifically designed to accommodate such discharges;
  - c. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, resulting in interference;
  - d. Any pollutant, including oxygen demanding pollutants (e.g., BOD), released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW;
  - e. Heat in amounts which will inhibit biological activity in the POTW resulting in interference but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40°C (104°F) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits;
  - f. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;
  - g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and
  - h. Any trucked or hauled pollutants, except at discharge points designated by the POTW.
2. The permittee shall require any indirect discharger to the treatment works to comply with the reporting requirements of Sections 204(b), 307, and 308 of the CWA, including any requirements established under 40 C.F.R. Part 403.
3. The permittee shall provide adequate notice of the following:
  - a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Sections 301 and 306 of the CWA and/or 40 C.F.R. Parts 405-499 if it were directly discharging those pollutants;

- b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit; and
- c. Any notice shall include information on (i) the quality and quantity of effluent to be introduced into the treatment works and (ii) any anticipated impact of the change on the quality or quantity of effluent to be discharged from the POTW.

## **B. RE-OPENER CLAUSE**

This permit may be re-opened for modification or revocation and reissuance to require additional monitoring and/or effluent limitations where actual or potential exceedances of State water quality criteria are determined to be the result of the permittee's discharge to the receiving water, or a revised Total Maximum Daily Load (TMDL) is established for the receiving water, or when required as technology advances. Modification or revocation and reissuance of the permit shall follow regulations listed at 40 C.F.R. § 124.5.

This permit also may be re-opened 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 OAC 252:627. Modification and/or reissuance of the permit shall follow regulations listed at OAC 252:004.

## **C. BIOSOLIDS/SEWAGE SLUDGE REQUIREMENTS**

1. The sewage sludge from this facility is self-contained within the lagoon treatment system.
2. The permittee shall be required to prepare and obtain approval of a Sludge Management Plan for beneficial use of biosolids and/or a Sludge Disposition Plan for disposal of sewage sludge prior to removing biosolids and/or sewage sludge from the facility. The plan shall comply with the Federal regulations for landfills, biosolids beneficial use, and/or sewage sludge solid waste disposal established at 40 C.F.R. Parts 257, 503, and the DEQ rules governing Sludge Management (OAC 252:515 and OAC 252:606) as applicable.
3. The permittee is required to maintain all records relevant to biosolids/sewage sludge disposal for the life of the permit. These records shall be made available to DEQ upon request.
4. The permittee shall notify DEQ at least 120 days prior to implementing any changes in the biosolids beneficial use and/or sewage sludge disposal practices.
5. The permittee shall also comply with all applicable biosolids/sewage sludge requirements in Part IV of this permit.

## **D. POLLUTION PREVENTION REQUIREMENTS**

1. The permittee shall institute a program within 12 months of the effective date of the permit (or continue an existing program) directed towards optimizing the efficiency and extending the useful life of the facility. The permittee shall consider the following items in the program:
  - a. The influent loadings, flow and design capacity;

- b. The effluent quality and plant performance;
  - c. The age and expected life of the wastewater treatment facility's equipment;
  - d. Bypasses and overflows of the tributary sewerage system and treatment works;
  - e. New developments at the facility;
  - f. Operator certification and training plans and status;
  - g. The financial status of the facility;
  - h. Preventative maintenance programs and equipment conditions; and
  - i. An overall evaluation of conditions at the facility.
2. The permittee shall prepare the following information on the biosolids/sewage sludge generated by the facility:
- a. An annual quantitative tabulation of the ultimate disposition of all biosolids/sewage sludge (including, but not limited to, the amount beneficially reused, landfilled, and incinerated).
  - b. An assessment of technological processes and an economic analysis evaluating the potential for beneficial reuse of all biosolids/sewage sludge not currently beneficially reused including a listing of any steps which would be required to achieve the biosolids/sewage sludge quality necessary to beneficially reuse the biosolids/sewage sludge.
  - c. A description of, including the expected results and the anticipated timing for, all projects in process, in planning and/or being considered which are directed towards additional beneficial reuse of biosolids/sewage sludge.
  - d. An analysis of one composite sample of the biosolids/sewage sludge collected prior to ultimate re-use or disposal shall be performed for the pollutants listed in Part IV, Element 1, Section III, Table 3 of the permit.
  - e. A listing of the specific steps (controls/changes) which would be necessary to achieve and sustain the quality of the biosolids/sewage sludge so that the pollutant concentrations in the biosolids/sewage sludge fall below the pollutant concentration criteria listed in Part IV, Element 1, Section III, Table 3 of the permit.
  - f. A listing of, and the anticipated timing for, all projects in process, in planning, and/or being considered which are directed towards meeting the biosolids/sewage sludge quality referenced in (e) above.

The permittee shall certify in writing, within three years of the effective date of the permit, that all pertinent information is available. This certification shall be submitted to:

Oklahoma Department of Environmental Quality  
Water Quality Division  
Municipal Discharge and Stormwater Permits Section  
P. O. Box 1677  
707 North Robinson Ave  
Oklahoma City, Oklahoma 73101-1677

## A. GENERAL PROVISIONS FOR SUPPLY OF RECLAIMED WATER

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 lines and the public water supply lines.
2. **Flow measuring devices.** The permittee shall provide flow measuring devices to measure the amount of reclaimed water being distributed to each water reuse site. Flow measurement devices shall have recording, totalizing and instantaneous indicating capabilities.

## B. OPERATION AND MAINTENANCE OF THE RECLAIMED WATER 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 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, the warning shall be located on opposite sides of the pipes and repeated every 3 feet or less.

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 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 systems and maintain it in good working order.
4. **Pump station.** 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.