

DRAFT

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

**OPDES PERMIT NUMBER: OK0031577
PERMIT TO SUPPLY RECLAIMED
WATER NUMBER: RW20-005
ID NUMBER: S21661**

PART I

In compliance with the Oklahoma Pollutant Discharge Elimination System Act (OPDES Act), Title 27A O.S. § 2-6-201 *et seq.* as amended, and the rules of the State of Oklahoma Department of Environmental Quality (DEQ) adopted thereunder {See OAC 252:606}; the Federal Clean Water Act, Public Law 95-217 (33 U.S.C. 1251 *et seq.*), Section 402; and NPDES Regulations (40 CFR 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 from a facility located at approximately

W½, W½ of Section 25,
Township 24 North, Range 19 East, Indian Meridian (I.M.),
Craig County, Oklahoma
or at NS 4360 Rd, Big Cabin, Oklahoma, 74332

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

Latitude: 36° 30' 57.059" N [GPS: NAD 1983 CONUS]
Longitude: 95° 15' 40.985" W [GPS: NAD 1983 CONUS]

Water Body I.D. No. 121600020180_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 December 11, 2009.

The issuance date of this permit is _____.

This permit shall become effective _____.

This permit and authorization to discharge shall expire at midnight _____.

For the Oklahoma Department of Environmental Quality:

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

Shellie R. Chard, 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 - April periods in accordance with the following limitations and monitoring requirements. **Discharge is NOT permitted during May - October periods.**

Effluent Characteristic		Discharge Limitations				Monitoring Requirements	
		Mass Loading (lbs/day)	Concentrations (mg/l unless otherwise specified)			Frequency	Sample Type
			Monthly Avg.	Monthly Avg.	Weekly Avg.		
Flow (mgd) [STORET: 50050]	Nov - Apr	---	Report	---	Report	5/week	Instantaneous
Biochemical Oxygen Demand - 5 Day (BOD₅) [STORET: 00310]	Nov - Apr	27.5	30.0	45.0	---	2/month	Grab
Total Suspended Solids [STORET: 00530]	Nov - Apr	82.6	90.0	135.0	---	2/month	Grab
pH (standard unit) [STORET: 00400]	Nov - Apr	---	6.5 – 9.0			2/week	Grab

^a 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 unit.

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. 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.

C. 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 15th 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://www.deq.ok.gov/water-quality-division/electronic-reporting/>. Assistance is also available by contacting DEQ at (405) 702-8100 or email deqreporting@deq.ok.gov.

The first report is due on the _____.

D. RECLAIMED WATER LIMITATIONS AND MONITORING REQUIREMENTS

Beginning the effective date and lasting through the expiration date of the permit, the Big Cabin PWA - Big Cabin Wastewater Treatment Plant, “the supplier,” is authorized to supply and reuse treated wastewater as Category 5 reclaimed water for application 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 Reuse

Land Application Site		Approx. Irrigated Area (acres)	Approx. Total Area (acres)	Approx. Location of Point of Entry	
Site ID	Legal Description			Latitude	Longitude
R01 (North)	NW¼, NW¼, SW¼ of Section 25 Township 24N, Range 19E, I.M., Craig County, Oklahoma	7.0	7.39	36° 31' 52"	95° 14' 13"
R02 (Middle)	SW¼, NW¼, SW¼ of Section 25 Township 24N, Range 19E, I.M., Craig County, Oklahoma	3.1	3.96	36° 31' 48"	95° 14' 13"
R03 (South)	SW¼, NW¼, SW¼ of Section 25 Township 24N, Range 19E, I.M., Craig County, Oklahoma	3.2	3.98	36° 31' 44"	95° 14' 13"
R04 (Circle)	Part of E½ of Section 26, Township 24N, Range 19E, I.M., Craig County, Oklahoma	43.3	64.8	36° 31' 56"	95° 14' 17"
R05 (Half Circle)	Part of W½, E½ of Section 26, Township 24N, Range 19E, I.M., Craig County, Oklahoma	18.3	37.1	36° 31' 56"	95° 14' 17"

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

In accordance with 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.

Site ID	Parameter	Limit and Monitoring Requirements	Measurement Frequency	Monitoring Location
R01 (North)	Flow (gpd)	Record	Daily ^c	Flow meter located west of the southernmost lagoon cell
R02 (Middle)	Flow (gpd)	Record	Daily ^c	
R03 (South)	Flow (gpd)	Record	Daily ^c	
R04 (Circle)	Flow (gpd)	Record	Daily ^c	Hour meter located in the pump control panel
R05 (Half Circle)	Flow (gpd)	Record	Daily ^c	

^a Separate Monthly Operating Reports shall be maintained for each site in accordance with OAC 252:619-1-4(f) and OAC 252:627-5-1(d).

^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 252:619-1-4(f) and OAC 252:627-5-1(b), (d), and (e), the supplier shall complete DEQ Form 627-001 Water Reuse Monthly Operating Report (MOR) for each land application site, 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, Phosphorous, Potassium)	Quantity of Fertilizer Applied
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4. Restrictions for Category 5 Reclaimed Water Reuse

- a. In accordance with OAC 252:627-3-4(b), irrigation with Category 5 reclaimed water is prohibited:
- (1) from a lagoon cell that receives raw sewage;
 - (2) from any cell other than the one specified in the permit;
 - (3) on any food crop that may be consumed raw;
 - (4) on grain crops such as corn, wheat and oats, less than thirty (30) days before harvest;
 - (5) at rates that allow a discharge from the permitted water reuse site;
 - (6) within one hundred feet (100') of the permitted boundary of the site;
 - (7) at a rate that exceeds the nitrogen and phosphorus rates for the crop grown at the site;
 - (8) at a rate that results in phytotoxicity;
 - (9) when the reclaimed water has a dissolved oxygen concentration of less than 2.0 mg/l;
 - (10) during periods of precipitation or while the soil is saturated or frozen;
 - (11) on land having a slope greater than five percent (5%); and
 - (12) 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. 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:
- (1) three hundred feet (300') from public wells;
 - (2) fifty feet (50') from private water wells;
 - (3) fifty feet (50') from creeks, lakes, ponds, and other water of the state;
 - (4) one hundred feet (100') from adjacent property lines.
- c. The Big Cabin Public Works Authority must obtain a permit to construct infrastructure and a permit to supply from DEQ before supplying reclaimed water to any user(s) or site(s) not authorized in this permit. The Big Cabin Public Works Authority shall provide information to DEQ on the intended use of the reclaimed water by the new user, 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.

5. Fencing Requirements

In accordance with OAC 252:627-3-4(a)(1), the permittee shall ensure fences are maintained in place for prevention of unauthorized access to the permitted land application site at all times.

6. 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.

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 CFR 403.3(o) “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 Act, 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 CFR 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 Act, including any requirements established under 40 CFR 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 Act and/or Sections 40 CFR 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(s), or a revised Total Maximum Daily Load (TMDL) is established for the receiving water(s), or when required as technology advances. Modification or revocation and reissuance of the permit shall follow regulations listed at 40 CFR 124.5.

C. BIOSOLIDS/SEWAGE SLUDGE REQUIREMENTS

1. The permittee will be required to prepare and obtain approval of a biosolids/sewage sludge management plan prior to removing biosolids/sewage sludge from the facility. Biosolids/sewage sludge disposal practices shall comply with the Federal regulations for landfills, biosolids/sewage sludge, and solid waste disposal established at 40 CFR Part 257, 503, and the DEQ rules governing Sludge Management (OAC 252:515 and OAC 252:606) as applicable.
2. The biosolids/sewage sludge from this facility is self-contained within the lagoon treatment system.
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 the ODEQ upon request.
4. The permittee shall give 120 days prior notice to DEQ of any change planned in the biosolids/sewage sludge disposal practice.
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 reuse 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 Permits Section
P. O. Box 1677
707 North Robinson Street
Oklahoma City, Oklahoma 73101-1677