

NOTICE OF ISSUANCE OF DRAFT TIER II PERMIT

POLLUTANT DISCHARGE APPLICATION NO. OK0020788

Notice is hereby given that the Oklahoma Department of Environmental Quality (DEQ) has issued a draft permit to the Tecumseh Utility Authority, 114 N. Broadway St., Tecumseh, OK, 74873, based on a Tier II application filed on December 9, 2019, for a renewal permit with DEQ. A final permit, if issued, would allow the Tecumseh Utility Authority to discharge treated municipal wastewater from their facility, the Tecumseh Wastewater Treatment Plant (Tecumseh WWTP), which is located in the SEA NW', SW', Section 6, Township 9 North, Range 4 East IM, Pottawatomie County, Oklahoma or at 19761 Patterson Drive, Tecumseh, OK, 74873. The Tecumseh WWTP is a municipal facility that accepts domestic wastewater. The proposed discharge consists of treated effluent from the Tecumseh WWTP. The discharge will be to unnamed tributary to Squirrel Creek. The discharge from Outfall 001 is located at latitude 35° 16' 46.522" N, longitude 96° 55' 37.915" W (GPS: NAD83) in Oklahoma County, Oklahoma. The sludge/biosolids generated by the facility is disposed of at the Sooner Landfill, located in the EY2 of Section 10 and W'/2 of Section 11, Township 8 North, Range 7 East, IM, Seminole County, Oklahoma.

A copy of the draft permit, fact sheet, and application may be reviewed the general public at the Tecumseh City Hall, 114 N Broadway St., Tecumseh, OK-74873. A copy of the draft permit, fact sheet, and application will be available on the facility's website at <https://tecumselt.squarespace.com/> for review by the general public. A copy of the draft permit may also be reviewed on the DEQ website at <https://www.deq.ok.gov/permits-for-public-review/>.

Pursuant to 27A O.S. § 2-14-302, persons wishing to make comments concerning the draft permit may do so by sending the comments in writing to the Contact Person for DEQ, at the address listed below, within 30 days after the date of publication or mailing. Comments should include: (1) name and address of the interested person, (2) the application name to which the request relates, (3) the nature and basis of the interest of the person affected, and (4) a statement of the objection or comment, the basis of the objection or comment, and any requested action by DEQ.

The contact person for DEQ, to schedule a date and time to review the draft permit at the office of the DEQ is:

Cailyn Prather

Oklahoma Department of Environmental Quality P.O. Box 1677, 707 N. Robinson Ave, Floor Oklahoma City, OK 73101-1677

(405) 702-8238

Email: cailyn.prather@deq.ok.gov

The contact person for the Tecumseh WWTP is:

Jimmy Stokes

City of Tecumseh 114 N. Broadway St. Tecumseh, OK 74873 (405) 598-2188

Pursuant to 27A O.S. § 2-14-302, persons wishing to request a public meeting concerning the draft permit may do so by filing the request in writing to the Contact Person for DEQ, at the address listed above, within 30 days after the date of publication or mailing. Requests for the public meeting should include: (1) name and address of the interested person, (2) the application name to which the request relates, (3) the nature and basis of the interest of the person affected, and (4) a statement of the objection or comment, the basis of the objection or comment, and any requested action by DEQ. A copy of the request must also be sent to the applicant, through the contact person listed above. A formal public meeting may be scheduled if there is a significant degree of public interest. Notice of the date, time and place of the public meeting will be given to all parties of record. A request for a public meeting may be combined with a submission of written comments.

If a public meeting is held, oral or written comments will be accepted at the meeting. DEQ shall, within 90 days of the date the public comment period closes (or longer if extended by the Executive Director of DEQ), issue responses to all public comments received.

SCOTT A. THOMPSON Executive Director OKI. A NOMA

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OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY KEVIN STITT Governor

May 18, 2020

CERTIFIED MAIL — RETURN RECEIPT REQUESTED

Jimmy Stokes

City of Tecumseh 114 N. Broadway Tecumseh OK 74873

Re: DEQ Application for Renewal, OPDES Permit No. OK0020788

Facility ID No. 520549, Tecumseh WWTP, Pottawatomie County, OK

Dear Mr. Stokes:

DEQ has been granted authority to issue permits for the disposal of pollutants in the State of Oklahoma subsequent to Public Notice. In accordance with 27A O.S. § 2-14-302, we are enclosing a draft Notice of Publication that the applicant must review for accuracy and publish in at least one daily or weekly newspaper local to the area affected by the proposed wastewater treatment/disposal facility.

We are also enclosing a copy of the draft permit and fact sheet for your review. You must also print copies of these documents and place them in the Tecumseh City Hall, 114 N Broadway St., Tecumseh, OK, 74873, for viewing by the general public. A copy of the application form you submitted, and which was received by DEQ on December 9, 2019, and a copy of the application Form (2M2), must also be placed at the above location for viewing by the general public. You must also make copies of these documents available on your website at <https://tecumseh.squarespace.com/>, for viewing by the general public. If you need to obtain a copy of your application, please contact the Central Records Section of DEQ at centralrecords@deq.ok.gov. Changes from the previous permit are listed on page 10 of the fact sheet.

The public comment period will end 30 days after the notice of draft permit is published in a newspaper local to the area where the facility is located or 30 days after DEQ publishes its statewide notice of draft permit, whichever occurs later. All comments and/or requests for a public meeting must be received by this date, unless extended for good cause by the DEQ. If a request for a public meeting has been granted, the applicant will be notified and provided a copy of the request.

PLEASE HAVE THE NEWSPAPER FURNISH THIS OFFICE WITH A CERTIFIED NOTICE OF PUBLICATION. THIS NOTICE MUST BE PUBLISHED WITHIN TEN DAYS OF RECEIPT OF THIS NOTICE.

If you have any questions concerning this matter, please contact Ismat Esrar, P.E. at (405) 702-8 193 .
Sincerely,

6.)114.-----

Michael B. Moe, P.E., Manager

Municipal Discharge and Stormwater Permit Section Water Quality Division

MBM/IE/cp Enclosure

707 NORTH ROBINSON, P.O. BOX 1677, OKLA110/1KA CITY, OKLAHOMA 73101-1677

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NOTE TO PUBLISHERS (not part of Notice to be published): Oklahoma Department of Environmental Quality has no responsibility and assumes no responsibility for the cost of publishing this NOTICE BY PUBLICATION.

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located in the SE^{1/4}, SWA, Section 6, Township 9 North, Range 4 East IM, Pottawatomie County, Oklahoma or at

19761 Patterson Drive, Tecumseh, OK, 74873. The Tecumseh WWTP is a municipal facility that accepts domestic wastewater. The proposed discharge consists of treated effluent from the Tecumseh WWTP. The discharge will be to unnamed tributary to Squirrel Creek. The discharge from Outfall 001 is located at latitude 35° 16' 46.522" N, longitude 96° 55' 37.915" W (GPS: NAD83) in Oklahoma County, Oklahoma. The sludge/biosolids generated by the facility is disposed of at the Sooner Landfill, located in the VA of Section 10 and W'A of Section 11, Township 8 North, Range 7 East, IM, Seminole County, Oklahoma.

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Email: cailyn.prather@deq.ok.gov

The contact person for the Tecumseh WWTP is:

Jimmy Stokes

City of Tecumseh

114 N. Broadway St. Tecumseh, OK 74873

(405) 598-2188

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DRAFT

AUTHORIZATION TO DISCHARGE UNDER THE

OKLAHOMA POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT NUMBER: OK0020788

ID NUMBER: S20549

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 State of Oklahoma Department of Environmental Quality (DEQ) adopted thereunder (see the Oklahoma Administrative Code (OAC) 252:606); the Federal Clean Water Act (CWA), Public Law 95-217 (33 U.S.C. 1251 et seq.), Section 402; and National Pollutant Discharge Elimination System (NPDES) Regulations (40 CFR Parts 122, 124, and 403),

City of Tecumseh

(Tecumseh Utility Authority)

114 N. Broadway St. Tecumseh, OK 74873

is hereby authorized to discharge treated wastewater from a facility located at approximately
SPA, NW', SW1/4

Section 6, Township 9 North, Range 4 East IM Pottawatomie County, Oklahoma

or at 19761 Patterson Drive, Tecumseh, OK 74873

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

Latitude: 35° 16' 46.522" N [GPS: NAD83]

Longitude: 96° 55' 37.915" W [GPS: NAD83]

Water Body ID. No. OK520510000390_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 July 2, 2015.

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:

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) 1. Final Limitations

Beginning the effective date of the permit through the expiration date of the permit, the permittee is authorized to discharge treated wastewater in accordance with the following limitations:

Effluent Characteristic Discharge Limitations Monitoring

Requirements

Mass

Loading

(lb/day) Concentrations

(mg/L unless otherwise

specified) Frequency

Type Sample

Monthly Avg. Monthly Avg. Weekly Avg. Daily Max.

Flow (mgd)

[50050] Year round --- Report --- Report Daily Totalized

Carbonaceous Biochemical Oxygen Demand-5 Day (CBOD5) [80082] Apr — Oct 50.04 10
15 --- 3/month Single

composite

SBR sample

Nov — Mar 75.06 15 22.5 ---

Total Suspended Solids — (TSS) [00530] Apr — Oct 75.06 15 22.5 --- 3/month
Single

composite

SBR sample

Nov — Mar 150.12 30 45 ---

Ammonia as N (NH3-N) [00610] Apr — May 15.01 3 4.5 --- 3/month 3-hour

composite

Jun — Oct 10.00 2 3 ---

Nov — Mar 50.04 10 15 --

Dissolved Oxygen (DO) [00300] Year round --- Instantaneous

Minimum: 6.0 Daily Grab

E. coli a

[51040] May — Sep --- 126 b -- 406 2/week Grab

Oct — Apr --- 630 b --- 2,030 1/week

Total Residual Chlorine (TRC) [50060] Year round --- Instantaneous Maximum: No Measurable " d Daily Grab

pH (standard unit) [00400] Year round --- 6.5 — 9.0 Daily Grab

a E coli shall be reported in MPN/100 mL

b Monthly average value for E. coli shall be reported as geometric mean of all samples in that month.

C If no chlorine is used for an entire reporting period, the permittee shall report a value of "zero" for the daily

maximum and enter "no chlorine used this reporting period" in the comments section on the DMR for that reporting period in lieu of the indicated testing. For any week in which chlorine is used, the indicated testing shall be done until the chlorine is no longer in use and at least one subsequent test verifies that the effluent meets the total residual chlorine limit.

No measurable is defined as less than 0.1 mg/L.

Sampling Point

Samples taken for compliance with the monitoring requirements specified above (except DO) shall be taken at the discharge from the final treatment unit. Samples taken for compliance with the DO monitoring requirements specified above shall be taken following post aeration at the end-of-pipe discharge to the receiving stream.

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 111.115 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 DEQ, Water Quality Division, Wastewater Compliance Tracking Section no later than the 15' 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 deqreportingadeq.ok.gov.

The first report is due on the 15th of MONTH, 2020.

D. Reclaimed Water Limitations and Monitoring Requirements Not applicable to this facility.

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 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, waste streams 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 CWA, 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 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 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 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 Parts 257, 503, and the DEQ rules governing Sludge Management (OAC 252:515 and OAC 252:606) as applicable.

2. The biosolids/sewage sludge disposal shall also comply with the requirements of Sludge Management Plan number 3567020, approved by DEQ on October 10, 2014, that allows the permittee to landfill biosolids/sewage sludge at the Sooner Landfill, located in the E1/2 of Section 10 and the W1/2 of Section 11, Township 8 North, Range 7 East, 1M, Seminole County, Oklahoma.
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 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 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

FACT SHEET

FOR THE DRAFT AUTHORIZATION TO DISCHARGE TO WATERS OF THE UNITED STATES UNDER THE
OKLAHOMA POLLUTANT DISCHARGE ELIMINATION SYSTEM

DEQ Permit Number: 01(0020788

State ID Number: S20549

Applicant: City of Tecumseh

(Tecumseh Utility Authority) 114 N. Broadway Tecumseh, OK 74873

Issuing Office:

Prepared By:

Date Prepared:

Reviewed By: Oklahoma Department of Environmental Quality

Water Quality Division

707 North Robinson Ave

P.O. Box 1677

Oklahoma City, Oklahoma 73101-1677

Ismat Esrar, P.E

Municipal Discharge and Stormwater Permit Section Water Quality Division

March 27, 2020

Michael B. Moe, P.E., Manager

Municipal Discharge and Stormwater Permit Section Water Quality Division

Karen Steele, P.E. Manager Wastewater Group Water Quality Division

The Oklahoma Department of Environmental Quality (DEQ) has made a tentative determination to issue a permit for the discharge described in the application. DEQ is the permitting authority and this permit will be enforceable under both Federal and State laws, rules and regulations. Permit requirements are based on National Pollutant Discharge Elimination System (NPDES) regulations (40 CFR Parts 122, 124, and 403) and the Oklahoma Pollutant Discharge Elimination System (OPDES) Act, Title 27A O.S., § 2-6-201 et seq. and the rules of the DEQ adopted thereunder (see the Oklahoma Administrative Code (OAC) 252:606).

Permit No. OK0020788

I. PERMITTING BACKGROUND

A. CHRONOLOGY OF PERMITTING ACTIVITIES

The following is a chronology of permitting activities since issuance of the previous OPDES permit:

May 18, 2020: April 25, 2020: February 26, 2020 January 22, 2020: January 15, 2020: December 9, 2019: July 2, 2015: Draft permit package sent to applicant for public notice. Draft permit package sent to applicant for courtesy review. Administrative review of permit application completed. Certification of public notice of filing of application received. Notice of incomplete application sent to applicant. OPDES permit application (Form 2M2) received. Previous OPDES permit issued.

B. PROPOSED PERMITTING ACTION

It is proposed that Permit No. OK0020788, which was effective August 1, 2015 and expires July 31, 2020, for which application for renewal was timely submitted prior to permit expiration, be reissued for a five-year term in accordance with regulations promulgated at 40 CFR § 122.46(a) and OAC 252:606-1-3(b).

II. APPLICANT ACTIVITY

A. DESCRIPTION AND LOCATION OF FACILITY

The facility is located in SE', NW', SW'/a, Section 6, Township 9 North, Range 4 East, Indian Meridian (IM), Pottawatomie County, Oklahoma or at 19761 Patterson Drive, Tecumseh, OK, 74873. Under the standard industrial classification (SIC) Code 4952, the facility provides biological treatment of domestic sewage.

B. WASTEWATER GENERATION AND TREATMENT

1. Treatment Plant

The facility's design average daily flow is 0.6 million gallons per day (mgd), which is less than the design average daily flow of 1.05 mgd specified in the Oklahoma Water Quality Management Plan (WQMP). The wastewater received at this Publicly Owned Treatment Works (POTW) consists of domestic sewage. Biological treatment of the waste stream takes place using by Sequencing Batch Reactor (SBR). Partial nitrification (oxidation of ammonia and organic nitrogen) occurs in the SBRs with positive displacement blowers. After allowing for sufficient contact time in the chlorine contact basin for disinfection, excess chlorine is removed by use of sodium bi-sulfite. The treated effluent is discharge through Outfall 001 into an unnamed tributary of Squirrel Creek.

2. Industrial Contributions

The facility does not receive industrial wastewaters,

3. Reclaimed Water for Water Reuse

The facility does not supply reclaimed water for water reuse.

HI. DISCHARGE LOCATION

Sampling Point and Outfall Location

Sampling

Point and

Outfall Location	Receiving Stream		
Legal Description	Latitude	Longitude	

Sampling

Point SE', NW', SW'

Section 6, Township 9 North

Range 4 East, IM

Pottawatomie County, Oklahoma 35° 16' 46.543" N (GPS: NAD83) a 96° 55' 37.901" W

(GPS: NAD83) a ____

Outfall 001

(physical

location) SE', NW', SW1/4

Section 6, Township 9 North

Range 4 East, IM

Pottawatomie County, Oklahoma 35° 16' 46.522" N (GPS: NAD83) a 96° 55' 37.915" W

(GPS: NAD83) a Unnamed tributary to Squirrel Creek

The North American Datum of 1983 (NAD83).

IV. TECHNOLOGY-BASED EFFLUENT LIMITATIONS AND CONDITIONS

POTWs treating domestic sewage are required by 40 CFR Part 133 to provide secondary or secondary-equivalent treatment. The Oklahoma definition of secondary treatment, which sets minimum

requirements for developing wasteload allocations for municipalities in the WQMP, is defined at OAC 252:606-5-2(2). The definitions are dependent on the type of treatment system and whether the receiving stream flow is perennial or intermittent. Since the facility is a mechanical system discharging to an intermittent stream, secondary treatment is defined according to OAC 252:606-5-2(2)(C) as indicated below:

Mechanical - Intermittent

5-day Biochemical Oxygen Demand (BOD5)

A monthly average effluent concentration of 20 mg/L BOD5 A weekly average effluent concentration of 30 mg/L BOD5

Total Suspended Solids (TSS)

A monthly average effluent concentration of 30 mg/L TSS A weekly average effluent concentration of 45 mg/L TSS

pH

A pH range between 6.5 and 9.0 standard units, inclusive.

V. EFFLUENT LIMITATIONS AND CONDITIONS

A. RECEIVING STREAM DESIGNATED USES AND ANTIDegradation PROVISIONS

The facility discharges through Outfall 001 to an unnamed tributary of Squirrel Creek (WBID # 01{520510000390_00}). Approximately two miles downstream of the point of discharge, the unnamed tributary joins Squirrel Creek (WBID# 01{520510000190_00}) which, after approximately 1 mile, flows into the North Canadian River (WBID# OK520510000110_10) in Stream Segment 520510 of the Canadian River Basin. As designated in Appendix A of the Oklahoma Water Quality Standards (OWQS), the designated beneficial uses of the unnamed tributary and Squirrel Creek in this stream segment are:

Permit No. OK0020788

Facility ID No. S20549 Fact Sheet Page 4

- Fish and Wildlife Propagation (OAC 785:45-5-12)/Warm Water Aquatic Community
- Agriculture (OAC 785:45-5-13)
- Primary Body Contact Recreation (OAC 785:45-5-16)
- Aesthetics (OAC 785:45-5-19), and
- Fish Consumption (OAC 785:45-5-20)

As designated in Appendix A of the OWQS, the designated beneficial uses of the North Canadian River in this stream segment are:

- Emergency Public and Private Water Supplies (OAC 785:45-5-11)
- Fish and Wildlife Propagation (OAC 785:45-5-12)/Warm Water Aquatic Community
- Agriculture (OAC 785:45-5-13)
- Primary Body Contact Recreation (OAC 785:45-5-16)
- Aesthetics (OAC 785:45-5-19), and
- Fish Consumption (OAC 785:45 5-20)

None of the receiving streams (the unnamed tributary, Squirrel Creek, or the North Canadian River) are designated as an Outstanding Resource Water (ORW), High Quality Water (HQW), or Sensitive Water Supply (SWS) in Appendix A of the OWQS. Also, none of them are designated in Table 1 of Appendix B of the OWQS as an area of ecological and/or recreational significance or in Table 2 of Appendix B as an area containing federally-listed endangered species.

B. WATER QUALITY STANDARDS IMPLEMENTATION

1. DO and DO-Demanding Substances — Fish and Wildlife Propagation Use (Outfall 001)

OAC 785:45-5-12(f)(1) requires that where dissolved oxygen (DO)-demanding substances are present in an effluent at significant levels, a wasteload allocation (WLA) must be established according to certain seasonal criteria dependent on the receiving water's aquatic community subcategory. In determining the WLA for DO-demanding substances, the prescribed level of secondary treatment for the facility (see Section IV) is modeled to determine if it meets the aforementioned seasonal criteria. If the model indicates that a more stringent WLA than secondary is required to meet these criteria, then the more stringent WLA (often referred to as a "tertiary" level of treatment) may be used once it is granted technical approval by EPA Region 6. It is then promulgated as an amendment to the WQMP. The approved WLA for DO-demanding substances for this facility at a design flow of 1.05 mgd is shown in the following table:

DO-Based WLA (Outfall 001)

Season WLA Parameters (in mg/L)

	CBOD5	TSS	NH3-N	DO (Minimum)	
Spring (April 1 — May 31)	10	15	3	6	
Summer (June 1 — October 31)	10	15	2	6	
Winter (November 1 — March 31)	15	30	10	6	

For purposes of establishing permit limitations for DO-demanding substances, the seasonal monthly average limit (MAL) in the draft permit for each effluent characteristic is set equal to the corresponding WLA concentration shown in the table. The corresponding weekly average limit

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(WAL) is set equal to 1.5 times the seasonal WLA concentration in accordance with 40 CFR § 122.45(d)(2).

2. pH — Fish and Wildlife Propagation Use (Outfall 001)

OAC 785:45-5-12(f)(3) states, "pH values shall be between 6.5 and 9.0 in waters designated for fish and wildlife propagation; unless pH values outside that range are due to natural conditions." This pH range is established in the draft permit.

3. Oil and Grease — Fish and Wildlife Propagation Use (Outfall 001)

In accordance with OAC 785:45-5-12(0)(4), a narrative condition prohibiting the discharge of any visible sheen or globules of oil or grease or in quantities that adhere to stream banks and coat bottoms of water courses or which cause deleterious effects to the biota will be included in the draft permit.

4. Bacterial Criteria

No total maximum daily loads (TMDLs) have been completed for the receiving stream or any stream within 5 miles downstream from the point of discharge. However, the stream segment of the North Canadian River (WBID1,1 OK520510000110_10) is impaired for bacteria, and is within 5 miles of the point of discharge.

a. Bacteria Limitation — Primary Body Contact Recreation Use (Outfall 001)

- In accordance with OAC 252:690-3-86(a)(1), the draft permit will have a E. coli monthly average limit (MAL) of 126/100mL, expressed as a geometric mean, and a daily maximum limit (DML) of 406/100mL for streams, in effect for the "recreational period" of May 1 through September 30 to protect the primary body contact recreation (PBCR) beneficial use.

- Additionally, in accordance with OAC 252:690-3-86(b), from October 1 through April 30; E. coli monthly average limit of 630/100mL, expressed as a geometric mean, and the daily maximum limit of 2030/100mL for streams stated in OAC 252:690-3-86(c)(1) to protect secondary body contact recreation (OCR) beneficial use shall apply to permittees that discharge to waterbodies that are impaired for bacteria.

In accordance with OAC 252:690-3-89(a)(3), the draft permit will have a bacteria monitoring frequency of two per week during the months of May through September and once a week for the months of October through April to protect the PBCR beneficial use since the receiving stream is impaired for bacteria.

b. Total Coliform — Public and Private Water Supply Use (Outfall 001)

Since this receiving stream is not listed as a Public and Private Water Supply no permitting action is necessary to protect this use.

5. Toxicity from Halogenated Oxidants — Fish and Wildlife Propagation Use (Outfall 001)

OAC 785:46-3-1(c) states "Toxicity from halogens (e.g., chlorine, bromine, and bromochloro compounds) will be controlled by dehalogenation." The requirement of OAC 785:46-3-1(c) for

dehalogenation is typically implemented as "no measureable amount" in the effluent. "No measureable amount" is defined by DEQ to be < 0.1 mg/L. Since the facility uses chlorination for disinfection, limitation requirements for total residual chlorine (TRC) is included in the permit.

6. Floatable Solids and Foam — Aesthetics Use (Outfall 001)

In accordance with OAC 785:45-5-9(b), a narrative condition prohibiting the discharge of floating solids or visible foam in other than trace amounts will be included in the draft permit.

7. Pretreatment Program

DEQ has tentatively determined that the permittee is not required to develop a full pretreatment program.

8. Biosolids/Sewage Sludge Requirements

Biosolids/sewage sludge disposal practices shall comply with the Federal regulations for landfills, biosolids/sewage sludge, and solid waste disposal established at 40 CFR Parts 257, 503, and the

DEQ rules governing Sludge Management (OAC 252:515 and OAC 252:606) as applicable.

The sludge disposal shall also comply with the requirements of Sludge Management Plan number 3567020, approved by DEQ on October 10, 2014, that allows the permittee to landfill biosolids/sewage sludge at the Sooner Landfill, located in the EY2 of Section 10 and WA of Section 11, Township 8 North, Range 7 East, IM, Seminole County, Oklahoma.

The permittee is required to maintain all records relevant to sewage biosolids/sewage sludge disposal for the life of the permit. These records shall be made available to DEQ upon request. The permittee shall give 120 days prior notice to DEQ of any change planned in the biosolids/sewage sludge disposal practice.

C. 303(d) LIST ASSESSMENT

1. Water Quality Assessment and Causes of Impairment

The Category 5 303(d) list in Appendix C of the 2016 Integrated Report, indicates that the stream segment of the North Canadian River (WHID11 520510000110_10), which is within 5 miles downstream of the point of discharge, is impaired. The listed causes are Enterococcus, turbidity, and total dissolved solids (TDS). A TMDL for this stream segment of the North Canadian River has not been scheduled yet.

2. 303(d) List-Related Permitting Actions

Where impairments are listed, EPA Region 6 policy requires that the draft permit include water quality-based limits or a monitoring and reporting requirement for the listed pollutants if present in the discharge, and a re-opener clause as permit conditions. Therefore, the following permitting actions are taken according to the listed impairments:

Enterococcus and Turbidity

As discussed in Section V.B.4, permit limits for E. coli during the PBCR season and SBCR season are established in the draft permit to control the discharge of bacteria in the receiving stream. Controls for turbidity are established in the draft permit through effluent limits for TSS.

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Total Dissolved Solids

The applicable OWQS criteria for TDS is 700 mg/L and the segment average for TDS for the Sample Standard and the Yearly Mean Standard for Segment 520510 listed in the OAC 785:45 Appendix F are 1523 mg/L and 1196 mg/L. The facility monitored for TDS once per quarter under the previous permit. Based on the DMRs, geometric mean of 17 data points is 298.8 mg/L with maximum value of 407 mg/L. The average value of TDS in the facility's effluent is much less than the segment average and applicable OWQS criteria. In addition, sources of impairment for TDS is unknown in accordance with the Integrated Report 2016 and draft Integrated Report 2018. Since this is a renewal permit for an existing facility with no proposed increase in flow or loading, the monitoring requirements for TDS is removed from the draft permit.

D. ANTIDEGRADATION REQUIREMENTS

Because no antidegradation restrictions are listed in Appendix A of the OWQS for this water body, implementation of the State of Oklahoma antidegradation policy, as described at OAC 785:46, Subchapter 13, states that no special requirements beyond Tier 1 protection (maintenance and protection of designated uses, as herein described) are necessary.

E. PROTECTION OF ENDANGERED AND THREATENED SPECIES AND CRITICAL HABITAT

The discharge location is not located in waters identified as sensitive by the United States Fish and Wildlife Service (USFWS) for endangered or candidate species or critical habitat; therefore, notification to the USFWS is not necessary.

F. RE-OPENER CLAUSE

A re-opener clause is included in the permit.

VI. SUMMARY OF PROPOSED PERMIT EFFLUENT LIMITATIONS A. GENERAL

In accordance with 40 CFR § 122.44(0, (d), and (l)), pollutant limitations are established in the draft permit based on the WQMP (208 Plan) for this facility, water quality standards and/or previous permit requirements. Mass loading limitations are calculated using the facility's design average daily flow of 0.60 mgd and the following equation:

$$\text{Mass loading limit (in lb/day)} = \text{Concentration limit (in mg/L)} \times \text{Qe(D) (permitted flow in mgd)} \times 8.34$$

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B. 0 UTFALL 001

1. Final Limitations

Final limits and reporting requirements are effective on the effective date of the permit:

i. Final Concentration Limitations and Reporting Requirements Page 8

Effluent Characteristic a Water

Quality Standards Previous

Permit Draft

Permit

Monthly Average Weekly

Average Monthly Average Weekly

Average	Monthly						
Average	Weekly						
Average							
CBOD5	Apr - May	10	15	10	15	10	15
	Jun - Oct	10	15	10	15	10	15
	Nov - Mar	15	22.5	15	22.5	15	22.5
TSS	Apr - May	15	22.5	15	22.5	15	22.5
	Jun - Oct	15	22.5	15	22.5	15	22.5
	Nov - Mar	30	45	30	45	30	45
Ammonia as N	Apr-May	3	4.5	3	4.5	3	4.5
	Jun - Oct	2	3	2	3	2	3
	Nov - Mar	10	15	10	15	10	15
E. coli							
(MPN/100 mL)	May - Sep	1266	406 c	---	---	1266	406 c
	Oct - Apr	630 b	2030 a	---	---	630 h	2030 a
Fecal Coliform (CFU/100 mL)	May - Sep	---	---	200 b	400 a	---	---
	Oct - Apr	---	---	1000 b	2000 a	---	---
DO	Year round	Instantaneous					
Minimum: 6.0 Instantaneous							
Minimum: 6.0 Instantaneous							
Minimum: 6.0							
TDS	Year round	---	---	Report	Report	Removed	Removed
TRC	Year round	Instantaneous Maximum: No measureable d' a				Instantaneous Maximum: No	
measureable d'a		Instantaneous Maximum: No measureable d, a					
pH (standard unit)	Year round	6.5 to 9.0		6.5 to 9.0		6.5 to 9.0	

a Units are mg/L, unless otherwise specified.

b Geometric mean

c Daily maximum

d If no chlorine is used for an entire reporting period, the permittee shall report a value of "zero" for the daily maximum and enter "No chlorine used this reporting period" in the comments section on the DMR for that reporting period in lieu of the indicated testing. For any week in which chlorine is used, the indicated testing shall be done until the chlorine is no longer in use and at least one subsequent test verifies that the effluent meets the total residual chlorine limit.

e No measurable is defined as less than 0.1 mg/L.

ii. Final Mass Loading Limitations and Reporting Requirements

Effluent Characteristic a Water

Quality Standards Previous

Permit Draft

Permit

Monthly Average Monthly Average Report - monthly average and daily maximum
Monthly Average Report- monthly average and daily maximum

Flow (mgd)	Year round	---		
CBOD5	Apr - May	50.04	50.04	50.04
	Jun - Oct	50.04	50.04	50.04
	Nov - Mar	75.06	75.06	75.06
TSS	Apr - May	75.06	75.06	75.06
	Jun - Oct	75.06	75.06	75.06
	Nov-Mar	150.12	150.12	150.12
Ammonia as N	Apr-May	15.01	15.01	15.01
	Jun - Oct	10.00	10.00	10.00
	Nov - Mar	50.04	50.04	50.04
TDS	Year round	---	Report	Removed

a Units are lb/day, unless otherwise specified.

iii. Final Monitoring Requirements and Sample Types

Effluent Characteristic	Previous Permit		Draft Permit		Permit	
	Measurement Frequency	Sample	Measurement Frequency	Sample	Measurement Frequency	Sample
Type	Measurement Frequency	Sample	Measurement Frequency	Sample	Measurement Frequency	Sample
Flow	Year round	Daily	Totalized	Daily	Totalized	
CBOD5 composite	Year round	3/month	Single composite	SBR sample	3/month	Single composite
SBR sample						
TSS composite	Year round	3/month	Single composite	SBR sample	3/month	Single composite
SBR sample						
Ammonia as N a	Year round	3/month	3-hour composite	Single composite	SBR sample	3/month
Fecal Coliform	May – Sep	2/week	Grab	---	--	
	Oct – Apr	1/week	Grab	---	—	
E. coli	May – Sep	---	---	2/week b	Grab	
	Oct – Apr	---	---	1/week b	Grab	
TRC	Year round	Daily	Grab	Daily	Grab	
DO	Year round	Daily	Grab	Daily	Grab	
PH	Year round	Daily	Grab	Daily	Grab	

a Monitoring frequency for Ammonia in accordance with OAC 252:606 Appendix A Table 1-3.

b E. coli monitoring frequency in accordance with OAC 252:690-3-89(a)(3).

VU. SUMMARY OF CHANGES FROM PREVIOUS PERMIT

- Bacteria limits of fecal coliform in previous permit have been replaced by E. coli due to changes in the Oklahoma Water Quality Standards (OAC 785:45).
- Sampling type for Ammonia has been changed to "3-hour composite" from "single composite SBR" in accordance with OAC 252:606 Appendix A Table 1-3,
- Monitoring requirements for TDS has been removed in the draft permit.

VIII. REVIEW BY OTHER AGENCIES AND FINAL DETERMINATION

A draft permit and draft public notice will be sent to the District Engineer, Corps of Engineers, State Historical Preservation Office and to the Field Supervisor of the U.S. Fish and Wildlife Service upon the publication of the notice. If comments are received from these agencies or other State or Federal agencies with jurisdiction over fish, wildlife, or public health, the permit may be denied or additional conditions may be included in accordance with regulations promulgated at 40 CFR § 124.59.

The public notice describes the procedures for the formulation of final determinations.