STATEMENT OF BASIS

FOR THE REISSUANCE OF
A NPDES PERMIT

U.S. Environmental Protection Agency
Region 5, Permits Branch - WP-16J
77 West Jackson Boulevard
Chicago, Illinois 60604
(312) 353-1938

Public Notice No.: 25-06-01-B

Public Notice Issued On: June 6, 2025

Comment Period Ends: July 7, 2025

Permit No.: MI-0058582-2 (REISSUANCE)

Application No.: MI-0058582-2

Name and Address of Applicant:

Saginaw Chippewa Indian Tribe
7070 East Broadway
Mt. Pleasant, Michigan 48858

Name and Address of Facility Where Discharge Occurs:

Saganing Water and Wastewater Treatment Plant
2600 Worth Rd
Standish, Michigan 48658
Arenac County
(Section 31, Township 18N, Range 5E)

Receiving Water: Unnamed tributary to Saginaw Bay of Lake Huron

DESCRIPTION OF APPLICANT'S FACILITY AND DISCHARGE

The above-named applicant has applied for an NPDES Permit to discharge into the designated receiving water. The permit will be issued by the U.S. Environmental Protection Agency since the discharge is located within the trust property owned by the Saginaw Chippewa Indian Tribe in Arenac County. EPA is the appropriate NPDES permitting authority for the trust parcel upon which the wastewater treatment plant is built and upon which the discharge from this wastewater treatment plant (WWTF) is located.

The Supreme Court has held in a variety of contexts that tribal trust lands are reservations whether or not they are part of a formally established reservation. Oklahoma Tax Comm'n v. Citizen Band Potawatomi Indian Tribe of Oklahoma, 498 U.S. 505, 511(1991); United States v. John, 437 U.S. 634, 649 ((1978) (finding no apparent reason" why lands held in trust should not be considered reservations under §1151(a)). This interpretation has been upheld recently in the environmental context in Arizona Pub. Service Co. v. U.S. Environmental Protection Agency, 211

F.3d 1280 (D.C. Cir. 2000) where the court upheld EPA's regulations governing the authority of Indian tribes to carry out certain provisions of the Clean Air Act.

There are three influent pumps that send the water to a 2 millimeter (mm) fine screen; an automatic sampler is located in between the pumps and drum screen. Wastewater is then gravity fed into one of two membrane bioreactor (MBR) units. The water is then pumped through the three chambers located in the MBR unit where Aluminum Sulfate is added for phosphorus removal. Mixed liquor is then pumped into the filter unit located at the head of the MBR where it is filtered out at approximately 75 gallons per minute. Treated water then flows through a UV disinfection unit where an automatic sampler is located. Water can be diverted into ponds around the building and/or has the option of discharging through Outfall 001 (Lat: 43.921478; Long: -83.906254) to an unnamed tributary to Saginaw Bay of Lake Huron.

The plant has a design flow of 0.4 million gallons per day (mgd). The sludge is wasted from the filter area of the MBR with storage tanks located outside. The sludge is allowed to settle and the decant is brought back into the headworks. The sludge will ultimately be land applied.

LIMITATIONS AND MONITORING REQUIREMENTS- OUTFALL 001

Parameter	Date	Monthly Average	7-day Average	Daily Maximum	Daily Minimum
$CBOD_5$	May 1 – Sep 30	4 mg/L 13 lbs/d	33 lbs/d	10 mg/L	
	Oct 1 – Nov 30	9 mg/L 30 lbs/d	47 lbs/d	14 mg/L	
	Dec 1–March 31	25 mg/L 83 lbs/d 85 % removal	40 mg/L 130 lbs/d		
	April 1-30	11 mg/L 37 lbs/d	53 lbs/d	16 mg/L	
Total Suspended Solids (TSS)	May 1 – Sep 30	20 mg/L 66 lbs/d	30 mg/L 100 lbs/d		
	Oct 1 – Nov 30	28 mg/L 66 lbs/d	42 mg/L 100 lbs/d		
	Dec 1 – April 30	30 mg/L 100 lbs/d 85 % removal	45 mg/L 150 lbs/d		
Ammonia	May 1 – Sep 30	0.5 mg/L 1.7 lbs/d	6.7 lbs/d	2 mg/L	
	Oct 1 – Nov 30	12 lbs/d	12 lbs/d	3.6 mg/L	

	Dec 1-March 31			Report	
	April 1-30	26 lbs/d	26 lbs/d	7.8 mg/L	
Dissolved Oxygen	May 1-Sep 30				6 mg/L
	Oct 1 – Nov 30				5 mg/L
	Dec 1-March 31				4.5 mg/L
	April 1-30				5 mg/L
Total Phosphorus	All Year	0.5 mg/L 1.2 lbs/d	1.2 lbs/d		
Total Mercury	All Year			Report	
E. coli	All Year	126 E. coli/100ml*		410 E. coli/100ml	
pH	All Year			9.0 S.U.	6.5 S.U.

* Geometric mean

The following design flow was used in determining the above limitations, but is not to be considered a limitation or actual capacity: 0.4 mgd

Section 401 Water Quality Certification

Section 401(a)(1) of the Clean Water Act (CWA) requires applicants for Federal licenses or permits that may result in any discharge into waters of the United States to obtain certification or waiver from the certifying authority where the discharge would originate. The EPA is the appropriate authority for purposes of certifying the proposed discharge under Section 401(a)(1) of the CWA within the trust land of the Saginaw Chippewa Indian Tribe and will be unless and until the Saginaw Chippewa Indian Tribe is approved for Treatment as a State (TAS) for CWA Sections 303 and 401. EPA is in the process of certifying pursuant to Section 401. The EPA believes the effluent limitations included in the draft permit meet Tribal and state water quality requirements where they are applicable. The draft certification is available for review. We have discussed our issuance of the permit with the Saginaw Chippewa Indian Tribe and the Michigan Department of Environment, Great Lakes, and Energy (EGLE) and the permittee.

Basis for Permit Requirements

The limits were developed to ensure compliance with 40 C.F.R. § 122.44(d) and 40 C.F.R. Part 133, EPA's water quality criteria and protection of Michigan's water quality standards where they are applicable.

In this regard, the Michigan Department of Environmental Quality (now the Michigan Department of the Environment, Great Lakes and Energy (EGLE)) helped develop limits for this facility that would be protective of state water quality standards. Though the State's Water Quality Standards (WQS) are not applicable at the point of discharge, EPA's consideration of the

limits will ensure compliance with the State's WQS at the reservation boundary. Also, permit writer's judgment is used to set some of the permit requirements. Information from EGLE on the development of the limits can be found in the administrative record.

pH

The limits for pH are based on protecting Michigan WQS (Rule 53) and federal secondary treatment standards (40 C.F.R. Part 133). Monitoring indicates the permittee is in substantial compliance with the limits.

5-day Carbonaceous Biochemical Oxygen Demand($CBOD_5$), Total Suspended Solids (TSS), Dissolved Oxygen (D.O.), and Ammonia (as N)

The limits in the previous permit issued by EGLE were developed using a Streeter-Phelps D.O. model. Information related to limit development for the discharge are included in the administrative record. For the existing permit, issued by EPA, EGLE provided us with a revised model run based on revised 95% exceedance flows and protection of the Michigan's warmwater D.O. standard of 5.0 mg/L at all times. Most of the limits in the updated model run were either the same or less stringent than the previous limits. For the draft permit, EPA determined that the existing permit limits are still applicable and have been carried over from the existing permit. It should be noted the loading limits are set as monthly and weekly averages and some do not have corresponding monthly and/or weekly average concentrations. 40 C.F.R. §§ 122.45(d)(2) and 122.45(f) requires the use of monthly and weekly average limitations for publicly owned treatment works and to use mass limitations as appropriate, respectively. The mass limits, along with the daily maximum concentration limits will ensure state water quality standards are protected. It is impracticable to include monthly and weekly average limits (concentration or loading) for dissolved oxygen as the limits are set as daily minimum concentration limits in the state's water quality standards.

E. coli

The limits for E. coli are based on the EPA's water quality criteria published in 2012 (EPA's 2012 Recreational Water Quality Criteria). The geometric mean of samples collected over a 30-day period shall not exceed 126 E. coli per 100 milliliters (ml). The statistical threshold value of 410 E. coli per 100 ml is set as the daily maximum. These limits are carried over from the existing permit.

Disinfection

According to the permit application, the facility utilizes an ultraviolet disinfection system. Therefore, total residual chlorine requirements have not been included in this permit. If the permittee wishes to change from ultra-violet disinfection to some other type of disinfection (e.g., chlorine), the permittee must notify EPA and receive approval from EPA prior to changing methods.

Phosphorus

The load limit for total phosphorus was originally established in the previous permit to comply with the strategy in the "State of Michigan Phosphorus Reduction Strategy for the Michigan

Portion of Lake Erie and Saginaw Bay" document. As the original NPDES permit for a discharge at this location, MI0047023 – Edmund & Joseph Assoc-Standish (issued by Michigan), contained a total phosphorus loading limitation of 1.2 lbs/day which has been carried forward to subsequent permits, this loading is being included in this permit in accordance with 40 C.F.R. § 122.44(l) (anti-backsliding) since the permittee has been in substantial compliance with the existing permit limits. A monthly average concentration limit of 0.5 mg/L is included to ensure that the loading limitation will be attained. In accordance with 40 C.F.R. § 122.45(d)(2), the draft permit also includes a weekly average load limit.

Mercury

For concerns related to mercury in the Great Lakes, semi-annual monitoring for mercury was included in the previous permit. The sampling data indicate that there is no reasonable potential to cause or contribute to a violation of water quality standards. The draft permit carries over the monitoring requirement. The previous permit also required a Pollution Minimization Program (PMP) for mercury to be implemented. This requirement has also been carried over to the draft permit to help identify possible sources of mercury in the system.

Additional Monitoring

In accordance with 40 C.F.R. § 122.21(j)(4)(iv)(C), EPA is requiring the permittee to monitor for the parameters found in Table 2 of Appendix J to 40 C.F.R. Part 122 one time during the permit term with the data to be submitted with the next permit renewal application. The data will be used to determine if additional limits are needed in the next permit.

Also, additional monitoring for Total Kjeldahl Nitrogen (TKN), Oil and Grease, Nitrate plus Nitrite Nitrogen and Total Dissolved Solids (TDS) is required for discharges with a design flow greater than 0.1 MGD. This monitoring is an application requirement of 40 C.F.R. § 122.21(j).

Per- and Polyfluoroalkyl Substances (PFAS)

PFAS are widely used, long lasting chemicals, components of which break down very slowly over time. Because of their widespread use and their persistence in the environment, many PFAS are found in the blood of people and animals all over the world and are present at low levels in a variety of food products and in the environment. PFAS are found in water, air, fish, and soil at locations across the nation and the globe. Scientific studies have shown that exposure to some PFAS in the environment may be linked to harmful health effects in humans and animals.

In September 2024, EPA finalized recommended aquatic life criteria and benchmarks for select PFAS. We looked at the need for PFAS sampling at this facility. Wastewater is from domestic sources with no industrial users. We also shared the draft permit with EGLE to evaluate whether monitoring was needed to protect their narrative standard. EGLE's monitoring requirements are based on present industrial users and describes action plans for major facilities with probable industrial dischargers and major facilities without probable industrial discharges. The WWTF is not considered a major facility and EGLE's requirements do not identify action plans for minor facilities without probable dischargers. Therefore, no sampling is

required in this permit. We did not receive any comments from EGLE related to PFAS. A reopener clause has been added if additional information becomes available indicating sampling or limits are needed.

Asset Management – Operation & Maintenance Plan

Regulations regarding proper operation and maintenance are found at 40 C.F.R. § 122.41(e). These regulations require, "that the permittee shall at all times operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of the permit." The treatment plant and the collection system are included in the definition of "facilities and systems of treatment and control" and are therefore subject to the proper operation and maintenance requirements of 40 C.F.R. § 122.41(e).

Similarly, a permittee has a "duty to mitigate" pursuant to 40 C.F.R. § 122.41(d), which requires the permittee to "take all reasonable steps to minimize or prevent any discharge in violation of the permit which has a reasonable likelihood of adversely affecting human health or the environment."

The draft permit requirements are the first steps of an asset management program which contains goals of effective performance, adequate funding, adequate operator staffing and training. Asset management is a planning process that ensures that you get the most value from each of your assets and have the financial resources to rehabilitate and replace them when necessary, and typically includes five core elements which identify: 1) the current state of the asset; 2) the desired level of service (e.g., per the permit, or for the customer); 3) the most critical asset(s) to sustain performance; 4) the best life cycle cost; and 5) the long term funding strategy to sustain service and performance.

EPA believes that requiring a certified wastewater operator and adequate staffing is also essential to ensure that the treatment facilities will be properly operated and maintained. Mapping the collection system with the service area will help the operator better identify the assets that he/she is responsible for and consider the resources needed to properly operate and maintain them. This will help in the development of a budget and a user rate structure that is necessary to sustain the operation. The development and implementation of a proactive preventive maintenance program is one reasonable step that the permittee can take to demonstrate that it is at all times, operating and maintaining all the equipment necessary to meet the effluent limitations of the permit.

Special Conditions

- The permit requires the continued implementation of an Operation & Maintenance Plan. The plan covers the use of a certified operator to oversee the facility, having adequate staff to help ensure compliance with the permit, mapping the treatment system, developing a preventive maintenance program and other items.
- The permit requires the continued implementation of a pollutant minimization program for mercury.

- Additional monitoring as required for discharges with a design flow greater than 0.1 MGD. This monitoring is an application requirement of 40 C.F.R. § 122.21(j).
- The permit requires monitoring for the parameters found in Table 2 of Appendix J to 40 C.F.R. Part 122 and whole effluent toxicity testing in accordance with 40 C.F.R. § 122.21(j)(4)(iv)(C).
- The permit contains Industrial Waste Pretreatment Program requirements in accordance with 40 C.F.R. Parts 122 and 403.
- Compliance with 40 C.F.R. Part 503 (sludge use and disposal regulations) (Part III of the permit) if sludge is used or disposed within the Reservation. Part III was developed using the Part 503 Implementation Guidance for sludge and 40 C.F.R. Parts 122, 501, and 503.
- In addition to Part III of the permit, the permit is required to comply with the following:

  A. The following land application sites have been identified as potential sites to receive sewage sludge during the permit term. It is not expected additional sites will be needed, however, the permit requires notification both to EPA and locally if additional sites will be used. As new sites are identified, information on those sites will be available for inspection at the Regional Office.

Site ID#	Latitude	Longitude
18N05E31-SC01	N 43.92678	W 83.92046

Significant Changes from The Last Permit

Following are the significant changes in the draft permit:

- Change to EPA Region 5 mailing addresses have been made throughout the permit.
- Monthly average loading limits for Ammonia Nitrogen have been included. (Part I.A.1)
- A weekly average loading limit for Phosphorus has been included. (Part I.A.1)
- The “Narrative Standard” language has been revised in accordance with the Supreme Court ruling for City and County of San Francisco, California vs. Environmental Protection Agency. (Part I.A.1.a)
- Quantification Levels and Analytical Methods for Selected Parameters have been included. (Part I.A.3)
- Whole Effluent Toxicity (WET) Testing has been included. (Part I.A.4.a.i)
- ‘Reporting’ requirements for electronic submittal of DMRs has been updated. (Part I.A.7)
- ‘Operation and Maintenance Plan’ requirements have been updated. (Part I.A.8)
- Reopener clause to include additional requirements for PFAS. (Part I.A.11)
- ‘Industrial Waste Pretreatment Program’ requirements have been updated. (Part I.B)
- ‘Land Application of Sewage Sludge’ requirements have been updated to include a new land application site. (Part I.C)
- The ‘Standard Conditions’ have been revised. (Part II)
- ‘Sewage Sludge Requirements’ have been included. (Part III)

The permit is based on an application dated September 18, 2023 (considered complete August 29, 2024) and additional supporting documents found in the administrative record.

The permit will be effective for approximately five years from the date of reissuance as allowed by 40 C.F.R. § 122.46.

Contact: John Nguyen
U.S. EPA, Region 5
77 West Jackson Blvd.
Chicago, IL 60604
nguyen.john@epa.gov

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