STATEMENT OF BASIS

FOR THE REISSUANCE OF
A NPDES PERMIT

U.S. Environmental Protection Agency
Region 5, NPDES Programs Branch - WN-15J
77 West Jackson Boulevard
Chicago, Illinois 60604
(312) 886-6106

Public Notice No.: 18-07-01-A

Public Notice Issued On: July 18 2018

Comment Period Ends: August 17, 2018

Permit No.: MI-0054640-5- (REISSUANCE)

Application No.: MI-0054640-5

Name and Address of Applicant:

Grand Traverse Band of Ottawa
and Chippewa
2605 N. West Bayshore Drive
Suttons Bay, Michigan 49682

Name and Address of Facility Where Discharge Occurs:

Peshawbestown Wastewater Treatment Plant
3499 E. Putnam Road
Suttons Bay, Michigan
Grand Traverse Indian Reservation
Leelanau County
(N.E. ¼ of the S.W. ¼ of S2, T30N, R11W)

Receiving Water: West Grand Traverse Bay

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 above facility is a tribally-owned facility located on the Grand Traverse Indian Reservation. The U. S. Environmental Protection Agency (EPA) has retained the authority to issue NPDES permits to facilities with discharges to waters of the United States within the boundaries of Indian Reservations. The permit will be issued by EPA under the authorities of the Clean Water Act (CWA).

The application and supporting documents indicate that the permittee operates a 0.12 mgd Sequencing Batch Reactor (SBR) system with phosphorus removal followed by ultraviolet (UV) disinfection. Solids from the SBR unit are wasted to two (2) aerobic digesters and then stored in covered tanks. From the storage tanks, the sludge is land applied by injection by a private contractor to farmland. The discharge is continuous to West Grand Traverse Bay. The following land application sites have been identified by the permittee as sites that could be used during the permit term.

Site Name	Location
Ron Schaub 001	2020 S. French Rd. Lake Leelanau, MI, Leelanau County 44 57' 56"N 85 44' 79"W
Michael Plamondon 004	Centerville Twp., Section 3, Township 29N, Range 12W, Lake Leelanau, MI, Leelanau County 44 56' 53"N 85 44' 39" W

The draft permit requires the applicant to meet the following effluent limitations:

	Concentration (Specified Units)			
Parameter	Minimum	Monthly Average	Weekly Average	Maximum
Flow (MGD)	-	-	-	-
Dissolved Oxygen (mg/L)	4.0	-	-	-
pH (SU)	6.0	-	-	8.5
Total Suspended Solids (TSS) (mg/L)	-	15	22.5	-
Carbonaceous Biochemical Oxygen Demand ($CBOD_5$) (mg/L)	-	12	20	-
Phosphorus, Total (mg/L)	-	0.5	-	1.0
Nitrogen, ammonia (mg/L)	-	Report	-	Report
Mercury, Total (ng/L)	-	1.3	-	Report
E. coli (#/100ml)	-	126[a]	-	235

Notes: [a] *Geometric mean-minimum of four samples in 30 days;*

Loading limits in the permit were calculated using the following formula:

(0.12 mgd * limit (mg/L) * 8.34) = Loading (lbs/d).

Section 401 Water Quality Certification

EPA is the appropriate authority for purposes of certifying the proposed discharge under Section 401 of the Clean Water Act. Section 401 certification is not needed from the state or the Grand Traverse Band of Ottawa and Chippewa as neither has federally approved water quality standards applicable to the receiving water at the point of discharge.

ESA and NHPA Compliance

EPA believes it has satisfied its requirements under the Endangered Species Act and the National

Historical Preservation Act. As this is an existing discharge, with no planned construction during the permit term, EPA believes that the issuance of the permit and the continued operation of the facility will have no effect on endangered or threatened species or their critical habitat and will have no impact to historical, archeological, or cultural resources.

Basis for Permit Requirements

The limits were developed to ensure compliance with 40 CFR Parts 131 and 133 and protection of Michigan water quality standards where they are applicable. The permittee's past performance has shown that it complies with the existing limits.

pH

The limits for pH are based on secondary treatment requirements pursuant to 40 CFR Part 133 and protection of Michigan water quality standards where they are applicable.

5-day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$) and Total Suspended Solids (TSS)

The limits for $CBOD_5$ and TSS have been carried over from the previous permits which were set at the advance wastewater treatment levels for new facilities and protection of Michigan's water quality standards for a lake discharge. The permittee has been in substantial compliance with these limits.

E. coli

The limits for E. coli are based on the EPA's water quality criteria in existence at the time the previous permit was drafted. The geometric mean of samples collected over a 30-day period shall not exceed 126 E. coli per 100 milliliters (ml). Any single sample shall not exceed 235 E. coli per 100 ml. New water quality criteria were 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. Since the permittee has been in substantial compliance with the existing permit limits, in accordance with 40 CFR 122.44(l) (anti-backsliding), the limits from the previous permit have been carried over into the draft permit.

Phosphorus

Due to concerns regarding nutrients being discharged to surface waters, especially lakes, the existing monthly average phosphorus limits have been retained in this permit. Outfall 001 contains a 0.5 mg/L limit for monthly average and 1.0 mg/L maximum concentration allowed for effluent discharged into the West Grand Traverse Bay. The limits are in place to minimize the presence of algal blooms in the receiving water. Effluent monitoring data indicate that the facility is in significant compliance with the limits.

Mercury

The limit for mercury developed for the previous permit has been carried over to this permit as we believe the limit and basis is still applicable. Prior to issuance of the previous permit, EPA determined that the discharge had a reasonable potential to cause or contribute to a violation of Michigan's and EPA's Great Lakes standard of 1.3 ng/L and therefore, a monthly average limit of

1.3 ng/L was included. Effluent monitoring data indicate that the facility is in significant compliance with the limits and because of the is, the frequency of monitoring has been reduced from quarterly to semi-annually.

Dissolve Oxygen

A minimum dissolved oxygen discharge limit of 4.0 mg/L is included in the permit based on water quality concerns.

Disinfection

According to the permit application, the facility utilizes an ultraviolet disinfection system. 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.

Asset Management – Operation & Maintenance Plan

Regulations regarding proper operation and maintenance are found at 40 CFR § 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 CFR § 122.41(e).

Similarly, a permittee has a "duty to mitigate" pursuant to 40 CFR §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 development and 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 contains Industrial Waste Pretreatment Program requirements in accordance with 40 CFR Parts 122 and 403.
- Compliance with 40 CFR Part 503 (sludge use and disposal regulations). These requirements were developed using the Part 503 Implementation Guidance for sludge and 40 CFR Parts 122, 501, and 503.
- The permit requires the continued implementation of a Pollutant Minimization Program (PMP) 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 CFR 122.21(j). A one-time priority pollutant scan and whole effluent toxicity testing are also required.

Significant Changes From The Last Permit

The draft permit contains the following changes from the last issued permit:

- The Reporting requirement has been changed to require electronic submittal of DMRs. (Part I.C.2)
- Additional requirements related to Asset Management have been added. This includes submitting an annual Asset Management Report instead of a treatment system map status report. (Part I.C.3)
- The listing of constituents has been updated in the 'Additional Monitoring Requirements' section. (Part I.C.7.A)
- The 'Sewage Sludge Requirements' have been updated. (Part III)
- Effluent mercury monitoring has been reduced from quarterly to semi-annually. (Part I.A)
- A requirement to include whole effluent toxicity (WET) testing once during the permit term has been included. (Part I.C.8.a)
- The land application site Jim Houdek 003 has been removed and replaced with Michael Plamondon 004. (Part I.C.7.a)

The permit is based on an application dated November 28, 2017 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 CFR § 122.46.

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