STATEMENT OF BASIS

FOR THE ISSUANCE OF
A NPDES PERMIT

U.S. Environmental Protection Agency
Region 5, Permits Branch - WP-16J
77 West Jackson Boulevard
Chicago, Illinois 60604
(312) 886-6106

Public Notice No.: 19-08-01-A

Public Notice Issued On: August 2, 2019 **Comment Period Ends:** September 4, 2019

Permit No.: MN0064637-4 (REISSUANCE) **Application No.: MN0064637-4**

Name and Address of Applicant:

ML Wastewater Management, Inc.
Mille Lacs Band of Ojibwe
700 Grand Avenue
Onamia, Minnesota 56359

Name and Address of Facility Where Discharge Occurs:

ML Wastewater Management, Inc.
Mille Lacs Indian Reservation
43282 Timber Trail Road
Onamia, Minnesota 56359
Mille Lacs County
Mille Lacs Indian Reservation
(NE ¼ of SW ¼ Section 30, T43N, R27W)

Receiving Water: Wetland to Ogechie Lake

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. 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 is located. The land which has been placed into trust status land is an L-shaped tract described as follows: The East Half of the Southwest Quarter (E ½ SW ¼) and the Northwest Quarter of the Southwest Quarter (NW ¼ SW ¼), Section 30, Township 43, Range 27 W, in Mille Lacs County.

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.

ML Wastewater Management, Inc. consists of primary treatment with static screen and grit removal, followed by biological treatment using sequencing batch reactors. Phosphorus removal is accomplished by chemical addition and equalization. The wastewater goes through ultraviolet disinfection then is discharged to a wetland (N46 10.376', W093 47.959') followed by an unnamed tributary which flows to Ogechie Lake. Sludge is treated by aerobic digestion and gravity thickening. Ultimate sludge use or disposal is by land application or hauling to another POTW.

The facility is to treat an average wet weather flow of 0.625 million gallons per day of mostly domestic wastewater. This facility is a regional facility that treats wastewater from the Vineland Indian Community area and the Garrison Kathio West Mille Lacs Lake Sanitary District. The Sanitary District includes the City of Garrison and the Township of Garrison and Kathio.

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 Mille Lacs Band of Ojibwe as neither has federally approved water quality standards applicable to the receiving water at the point of discharge.

ESA and NHPA Compliance

The USFWS website was reviewed for threatened and endangered species and their critical habitat listed within Mille Lacs County. The site identifies the Gray wolf and Northern long-eared bat as threatened species. This facility has been in existence for many years and no new construction is planned. The discharge from the above facility has been treated and should have no effect on any of the species or the species' critical habitat.

EPA believes it has satisfied its requirements under the National Historical Preservation Act. This is an existing facility that has previously been permitted by EPA. We do not have any records indicating any historical properties being in the area of potential effect (the existing site and discharge location). Also, no construction is planned at the site during the permit term. Therefore, we believe that no historic or archeological sites or cultural resources will be affected by the continued operation of the facility and its discharge with the reissuance of the permit.

Proposed Effluent Limitations – Outfall 001:

Effluent Characteristics	Discharge Limitations			
	Concentration (Specified Units)			
Parameter	Minimum	Monthly	Weekly	Maximum
Flow (MGD)	-	-	-	-
Dissolved Oxygen (mg/L)	4.0	-	-	-
pH (SU)	6.0	-	-	9.0
Total Suspended Solids (TSS) (mg/L)	-	30	45	-
Carbonaceous Biochemical Oxygen Demand ($CBOD_5$) (mg/L)	-	25	40	-
Phosphorus, Total (mg/L)	-	0.8	1.6	-
Nitrogen, ammonia (NH_3-N) (mg/L)	-	Report	-	-
Nitrite Plus Nitrate, Total (as N) (mg/L)	-	Report	-	-
Nitrogen, Kjeldahl, Total (mg/L)	-	Report	-	-
Nitrogen, Total (as N) (mg/L)	-	Report	-	-
Mercury, Total (ng/L)	-	-	-	Report
Sulfates, Total (mg/L)	-	Report	-	-
Chlorides, Total (mg/L)	-	250	500	-
E. coli (#/100ml)	-	126	-	410
$CBOD_5$ percent removal (%)	-	85	-	-
TSS percent removal (%)	-	85	-	-
Outfall observation (yes/no)	-	-	-	-

Loading limits in the permit were calculated using the following:

(0.625 mgd * limit (mg/L) * 3.78 acres = Loading (kgs/d).

Basis for Permit Requirements

The limits were developed to ensure compliance with 40 CFR Parts 131 and 133, EPA's water quality criteria and protection of Minnesota's water quality standards where they are applicable.

pH

The limits for pH are based on secondary treatment requirements pursuant to 40 CFR Part 133.

5-day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$)

The limits for $CBOD_5$ are based on secondary treatment requirements pursuant to 40 CFR Part 133. A 7-day average limit of 40 mg/L and a 30-day average limit of 25 mg/L are carried over from the previous permit. The permittee has been in substantial compliance with these limits. The 7-day average and the 30-day average are the arithmetic mean of pollutant parameter values for samples collected in a period of 7 and 30 consecutive days, respectively. Also, for the average during the discharge period, the effluent concentration of $CBOD_5$ shall not exceed 15% of the arithmetic mean of the value for influent samples for $CBOD_5$ collected during the related treatment period. Also, for the average during the discharge period, the effluent concentration for $CBOD_5$ shall not exceed 15% of the arithmetic mean of the value for influent samples for $CBOD_5$ collected during the related treatment period.

Total Suspended Solids (TSS)

The limits for TSS are based on equivalent to secondary treatment requirements pursuant to 40 CFR Part 133. A 7-day average limit of 45 mg/L and a 30-day average limit of 30 mg/L are carried over from the previous permit. The permittee has been in substantial compliance with these limits. The 7-day average and the 30-day average are the arithmetic mean of pollutant parameter values for samples collected in a period of 7 and 30 consecutive days, respectively. Also, for the average during the discharge period, the effluent concentration for TSS shall not exceed 15% of the arithmetic mean of the value for influent samples for TSS collected during the related treatment period.

Dissolve Oxygen (DO)

A minimum DO discharge limit of 4.0 mg/L is included in the permit to ensure protection of the discharge wetland complex and downstream water quality standards. This limit has been carried over from the previous permit. The monitoring indicates the permittee is in substantial compliance with the limit.

E. coli

The previous permit had the following limits: the geometric mean of samples collected over a 30-day period shall not exceed 126 E. coli per 100 milliliters (ml) and any single sample shall not exceed 410 E. coli per 100 ml. The limits for E. coli were based on the EPA's water quality criteria published in 2012 (EPA's 2012 Recreational Water Quality Criteria). These criteria are still in effect and therefore, the limits from the previous permit have been carried over into this draft permit. The permittee has been in substantial compliance with these limits.

Mercury

During the last permit term, the permittee sampled its effluent for mercury using low level testing procedure semi-annually. Based on the results, the effluent does not have a reasonable potential to cause or contribute to a violation of Minnesota's health based chronic water quality standard applicable to waters outside of the Lake Superior Basin (6.9 ng/L). The average of the daily maximum effluent values from September 2014 to June 2019 was 1.3 ng/L. This permit will continue to require monitoring for mercury semi-annually. The permit will also require the permittee to continue to implement the Mercury Minimization Plan.

Phosphorus

The previous permit contained a monthly average limit for total phosphorus of 0.8 mg/L and a weekly average limit of 1.6 mg/L to ensure protection of Minnesota's phosphorus lake eutrophication standard and river eutrophication standard (RES). The permittee has been required to conduct instream sampling that indicates the state's standards are being met in Lake Ogechie and at the outlet of the lake to the Rum River. Effluent data indicates the permittee is in substantial compliance with the limits. The 2018 summer (June-September) average concentration was 0.032 mg/L at the outlet of the lake to the Rum River. The RES for phosphorus in central Minnesota is < 0.100 mg/L. The long-term trend (2004-2018) for phosphorus at this location has been steady.

Ammonia

As there are no federally-approved water quality standards that apply at the discharge, we need to ensure that the state's water quality standards are protected at the downstream reservation boundary. Based on past sampling data, we determined that no limits are needed. The average of the monthly average ammonia data from January 2016 through March 2019 was 0.32 mg/L. Also, instream monitoring conducted by the permittee indicates the downstream waters comply with state standards. The permit will continue to require monitoring.

Nitrogen Monitoring

In order to develop a more complete understanding of the magnitude and dynamics of nitrogen sources and discharges from wastewater sources, additional monitoring for Total Kjeldahl Nitrogen (TKN), Nitrate plus Nitrite Nitrogen and Total Nitrogen is being required. A better understanding of nitrogen concentrations and loadings received by and discharged from municipal and industrial wastewater sources is necessary in order to assess the accuracy of current nitrogen loading estimates and to develop realistic nitrogen reduction alternatives from wastewater sources. This is also consistent with Minnesota's Nitrogen Monitoring Implementation Plan.

Total Chlorides

As part of the wetland monitoring plan required by the permit, the permittee has monitored its influent, effluent and receiving waters for chlorides. Prior to issuance of the previous permit the instream monitoring indicated that levels of chlorides in the wetland had been rising over time, but it had not caused significant impacts to the wetlands. To help ensure that impacts did not occur, the previous permit required the continued implementation of a Chloride Pollutant Minimization Plan. In addition, water quality-based effluent limits were included in the previous permit. These limits have been carried over into this draft permit along with the requirement to continue implementing the Chloride Pollutant Minimization Plan. The permittee has been in substantial compliance with the limits.

Total Sulfates

The Mille Lacs Band of Ojibwe brought wild rice back to Ogechie Lake in August 2016. Effluent monitoring is required to provide information related to sulfate levels being discharged from the wastewater treatment plant and the possible impacts to wild rice waters. This permit also requires instream monitoring for sulfates as part of the Wetland Protection/Monitoring Plan.

Wetland Protection/Monitoring Plan

This condition has been included in the permittee's permits since the first permit was issued for this facility. The goal of the plan was to identify whether the new discharge would cause any impacts to the wetland and/or to water quality and then to mitigate those impacts. The original plan has been expanded over the years to require additional sampling locations. The data collected through this plan prompted the inclusion of chloride limits in the last permit. The Wetland Protection/Monitoring Plan has been carried over into this permit with the addition of sulfate monitoring as explained above.

Additional Pollutant Monitoring

In accordance with 40 CFR § 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 CFR 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.

Additional monitoring for Oil and Grease 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 CFR 122.2(j) and the data will be submitted with the next permit application.

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 electronic reporting.
- 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.
- 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 onetime priority pollutant scan is required. This information will be used for future permit cycles.
- The continued implementation of a pollutant minimization plan for mercury.
- The continued implementation of a pollutant minimization plan for chlorides
- 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) (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 CFR Parts 122, 501, and 503. It is expected, however, that sludge will not be used or disposed of during this permit term.
- Continued implementation of the Wetland Protection/Monitoring Plan

Significant Changes from the Last Permit

Following are the significant changes in the draft permit:

- The facility named has been corrected to ML Wastewater Management, Inc. (Part I)
- 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. (Part I.C.3)
- Sulfate monitoring is now required as part of the Wetland Protection/Monitoring Plan. (Part I.C.6)
- A reopener has been included in the event a TMDL is approved for the receiving waters. (Part I.C.10)
- Requirement to inform EPA if the permittee plans on changing its method of disinfection. (Part.I.C.11)
- The compliance schedule for chlorides has been removed.
- Changes to EPA Region 5 mailing addresses have been made throughout the permit.

The permit is based on an application dated December 20, 2018 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.

Written By: Wilonda Quinn/John Colletti July 2019
U.S. EPA, Region 5, WP-16J
77 West Jackson Blvd.
Chicago, IL 60604
(312) 886-6106