

STATEMENT OF BASIS

PERMITTEE: Spirit Lake Casino and Resort

FACILITY: Spirit Lake Casino Wastewater Treatment Facility

MAILING ADDRESS: 109 Bellisle Rd.
St. Michael, ND 58370

PERMIT NUMBER: ND-0031178

FACILITY LOCATION: 7889 ND-57
St. Michael, ND 58370
Benson County, ND
NE ¼ of SE ¼, S1, T152N, R65W, latitude 48.011944° N,
longitude 98.911944° W

FACILITY CONTACT: Darcy Longie, Manager
Sioux Utilities
109 Bellisle Rd
St. Michael, ND 58370
Phone: (701) 766-1209

RESPONSIBLE OFFICIAL: Robert Thompson, Director
Spirit Lake Water Resources
109 Bellisle Rd
St. Michael, ND 58370
Phone: (701) 766-1209

PERMIT TYPE: Minor Municipal, Indian Country Wastewater Treatment Plant
New Application

1. Background Information

This facility is located within the boundaries of the Spirit Lake Reservation and is thus in “Indian country” as defined at 18 U.S.C. 1151. The EPA has not approved the Spirit Lake Reservation to implement the Clean Water Act (CWA) National Pollutant Discharge Elimination System (NPDES) program in Indian country. The EPA directly implements the CWA NPDES program on Indian country lands within the state of North Dakota.

This facility was previously covered under the EPA Region 8 wastewater lagoon general permit with permit number, NDG589204. It can no longer be covered under the general permit because it does not meet the applicability criteria. The general permit covers facilities that primarily treat domestic wastewater. This facility treats wastewater from a hotel, marina, grocery, cabins and RV park, and casino. Therefore, an individual permit is required.

This Permit covers discharges from the Spirit Lake Casino wastewater treatment facility (WWTF), which is managed by Sioux Utilities and comprises a three-cell lagoon serving the Spirit Lake Casino and Resort and related facilities, including approximately ten cabins, seventy-three RV parking spaces, a grocery, a marina, and a gas station. The Spirit Lake Casino and Resort operates one-hundred twenty four rooms, two restaurants, and a swimming pool. The WWTF accepts hauled septic waste discharged directly into the Primary Cell, including waste from the casino RV and gas station facilities. The lagoon batch discharges from the Tertiary Cell via Outfall 001 (latitude 48.011389° N, longitude 98.910556° W) into an adjacent confined wetland area. The nearest surface water body is Devil's Lake, located south, adjacent to the wetland area.

The WWTF treats an average flow of 31,750 gallons per day (GPD) of wastewater from the hotel, marina, gas station, grocery, cabins and RV park, and casino. The facility peak designed flow is 45,000 GPD. The Spirit Lake Casino WWTF is shown below in Figure 1.

Figure 1. Spirit Lake Casino WWTF



2. Receiving Waters

The discharge from the WWTF, tertiary cell goes into an adjacent confined wetland area. The nearest surface water body is Devils Lake, located south, adjacent to the wetland area.

3. Water Quality Considerations

The Spirit Lake Reservation does not have approved water quality standards; therefore, the EPA has utilized the EPA recommended national criteria and has reviewed the state water quality standards that may be taken into consideration for the derivation of permit limitations. The state of North Dakota, has not been granted authority to administer any portions of the CWA within tribal boundaries. Use and/or consideration of North Dakota water quality standards does not grant or infer any rights to the state of North Dakota. This Permit is written to protect the aquatic life and primary contact recreation uses to meet CWA requirements.

The CWA generally assumes aquatic life and primary contact recreation uses for all United States surface waters in the absence of a demonstration otherwise. The Devils Lake has been classified by the North Dakota Standards of Quality for Waters of the State, Chapters 33-16-02.1 for the following designated uses:

“Class 2: Cool water fishery. Waters capable of supporting natural reproduction and growth of cool water fishes (e.g., northern pike and walleye) and associated aquatic biota. These waters are also capable of supporting the growth and marginal survival of cold water species and associated biota.”

4. Effluent Limitations

Effluent Limitations - Outfall 001. Effective immediately and lasting through the life of this Permit, the quality of effluent discharged by the facility shall, at a minimum, meet the limitations as set forth below:

Effluent Characteristic	Effluent Limitation		
	30-Day Average <u>a/</u>	7-Day Average <u>a/</u>	Daily Maximum <u>a/</u>
Biological Oxygen Demand (BOD ₅), mg/L	30	45	N/A
Total Suspended Solids (TSS), mg/L	30	45	N/A
<i>E. coli</i> , #/100 mL <u>b/</u>	126	N/A	410
The pH of the discharge shall not be less than 6.0 or greater than 9.0 in any single sample or analysis.			
The concentration of oil and grease in any single sample shall not exceed 10 mg/L nor shall there be any visible sheen in the receiving water or adjoining shoreline due to the discharge.			
There shall be no discharge of floating solids or visible foam in other than trace amounts.			

- a/ See Definitions, Part 1.1 of the Permit, for definition of terms.
- b/ Per EPA's 2012 recommended *E. coli* criteria for primary contact recreation ("Recreational Water Quality Criteria", Office of Water 820-F-12-058), the 30-day Average is to be calculated using the 30-Day geometric mean. The 30-day geometric mean calculation will be based on the geometric mean from the total number of samples collected during the 30-day period. The Permittee may collect more samples than the monthly samples specified in the self-monitoring requirements. The maximum limitation in any sample will be 410 #/100 mL.

Basis for the Effluent Limitations

BOD₅, TSS, and pH

The WWTF does not meet the definition of a publicly owned treatment works (POTW) as defined in 40 CFR §403.3. Nonetheless, the waste treated and type of treatment are sufficiently similar such that in the professional judgment of the permit writer, the secondary treatment standards for POTWs in 40 CFR part 133 should be applied.

The limits for BOD₅, TSS, and pH are based on the National Secondary Treatment Standards (40 CFR Part 133). The percent removal requirements for BOD₅ and TSS required by 40 C.F.R. § 133.102(a)(3) are not included in this Permit. Compliance with percent removal requirements generally is based on influent and effluent data measured at approximately the same time. It has been the experience of the EPA Region 8 that there are practical problems that prevent the determination of the actual percent removals of BOD₅ and TSS in small municipal wastewater lagoon systems such as this one. The detention times in lagoon systems usually range from several weeks to several months. The lag time between when the influent enters the lagoon and when the wastewater leaves the lagoon system makes it difficult to make a valid comparison between influent and effluent concentrations. Based on the EPA Region 8 professional judgment, percent removal requirements will not be required in this Permit.

E. coli

The *E. coli* limits are based on the 2012 update to the EPA's national recommended water quality criterion for primary contact recreation. The 30 day average geometric mean of *E. coli* limit is not to exceed 126 #/100 mL. The daily maximum limit is set at 410 #/100 mL.

Oil and Grease

The limit for oil and grease is based on the EPA Region 8 professional judgment (PJ) value for water quality protection.

5. Self-Monitoring Requirements

The self-monitoring requirements for each discharge are given in Part 1.3.2 of the Permit as below.

Effluent Characteristic	Frequency <u>b/</u>	Sample Type <u>a/</u>
Total Flow, mgd <u>b/</u>	Daily	Instantaneous
BOD ₅ , mg/L	Quarterly	Composite
TSS, mg/L	Quarterly	Composite
<i>E. coli</i> , #/100 mL	Quarterly	Grab
pH, units <u>d/</u>	Quarterly	Grab or Instantaneous
Oil and grease, visual <u>c/</u>	Quarterly	Visual
Total Ammonia as N, mg/L <u>d/</u>	Quarterly	Grab
Temperature, °C <u>d/</u>	Quarterly	Grab or Instantaneous
Total Nitrogen, mg/L <u>e/</u>	Quarterly	Grab
Total Phosphorus, mg/L <u>f/</u>	Quarterly	Grab

a/ See Definitions, Part 1.1 of the Permit, for definition of terms.

b/ Flow measurements with a flow measuring device (i.e. Parshall flume, weirs, etc.) of effluent volume shall be made in such a manner that the Permittee can affirmatively demonstrate that representative values are being obtained. The minimum, average and maximum flow rates (in gallons per day) during the reporting period shall be recorded in the daily log and reported.

c/ If a visible sheen is detected, a grab sample shall be taken immediately and analyzed in accordance with the requirements of 40 CFR Part 136. The concentration of oil and grease shall not exceed 10 mg/L in any sample.

d/ Temperature and pH sampling shall be collected at the same time as sampling for the total ammonia.

e/ For the purposes of this Permit, the term “total nitrogen (TN)” is defined as total Kjeldahl nitrogen plus nitrate-nitrite (or the components to calculate total nitrogen) (as N).

f/ For purposes of this Permit “total phosphorus (TP)” may be determined by the analysis for total phosphorus or the analyses of the components to calculate total phosphorus.

Quarterly grab samples are to be collected and analyzed for TN and TP. The definitions are given in the Permit in footnotes e/ and f/ for Part 1.3.2. The EPA is giving increased emphasis to nutrients in the nation’s streams. The monitoring requirements for TN and TP will provide information on the concentrations being discharged.

All discharge samples are to be collected after the tertiary cell and before flow enters the wetlands.

6. Reporting Requirements

With the effective date of this Permit, the Permittee must electronically report all monitoring data into the discharge monitoring reports (DMR) on a quarterly frequency using NetDMR. If no discharge occurs during the entire monitoring period, it shall be stated on the Discharge Monitoring Report Form that no discharge or overflow occurred. Electronic submissions by the Permittee must be sent to the EPA Region 8 no later than the 28th of the month following the completed reporting period. The Permittee must sign and certify all electronic submissions in accordance with the signatory requirements of the Permit. NetDMR is accessed from the internet at <https://netdmr.zendesk.com/home>.

In addition, the Permittee must submit a copy of the DMR to the Spirit Lake Tribe. Currently, the Permittee may submit a copy to the Spirit Lake Tribe by one of three ways: 1. a paper copy may be mailed; 2. the email address for Spirit Lake Tribe may be added to the electronic submittal through NetDMR; or 3. the Permittee may provide Spirit Lake Tribe viewing rights through NetDMR.

The DMRs are due quarterly by the dates listed below and shall not be submitted until the reporting period is complete.

Compliance Monitoring Period	Due Date
January through March	April 28
April through June	July 28
July through September	October 28
October through December	January 28

Legible copies of all other reports shall be signed and certified in accordance with the Signatory Requirements (see section 4.7), and submitted to the EPA Region 8 Policy, Information Management & Environmental Justice Program and the Tribe at the addresses given below:

original to: U.S. EPA, Region 8
(8ENF-W)
Attention: DMR Coordinator
1595 Wynkoop Street
Denver, Colorado 80202-1129

copy to: Environmental Director
Spirit Lake Tribe
P.O. Box 99
Ft. Totten, ND 58335-0359

Until December 21, 2020, all other reports (e.g., Parts 2.8 and 2.9) as well as sewer overflow event reports, are to be submitted by mail to the given addresses above. Effective December 21, 2020, these reports are to be submitted using the National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Tool (NeT) (40 CFR part 127). If the NeT tool is not available on December 21, 2020, the reports can continue to be submitted to the addresses above until such time as the tool is available. NeT is a tool suite developed by the EPA to facilitate electronic submittal of data by the regulated community directly to the EPA and its partners. It uses commercial "off-the-shelf" software and can support diverse form and data submission formats. For more information about NeT, please visit: <https://www.epa.gov/compliance/national-pollutant-discharge-elimination-system-npdes-electronic-reporting-tool-net-fact>.

7. Endangered Species Act (ESA) Requirements

The Endangered Species Act (ESA) of 1973 requires all Federal Agencies to ensure, in consultation with the U.S. Fish and Wildlife Service (USFWS), that any Federal action carried out by the Agency is not likely to jeopardize the continued existence of any endangered species or threatened species, or result in the adverse modification or destruction of habitat of such species that is designated by the USFWS as critical ("critical habitat"). See 16 U.S.C. § 1536(a)(2), 50 C.F.R. Part 402. When a Federal agency's action "may affect" a protected species, that agency is required to consult with the USFWS, depending upon the endangered species, threatened species, or designated critical habitat that may be affected by the action (50 C.F.R. § 402.14(a)).

The USFWS Information for Planning and Conservation (IPaC) website program was utilized to determine what federally listed Endangered, Threatened, Proposed and Candidate Species may occur within the project area. The federally listed threatened and endangered species that may occur within the project area in Benson County, North Dakota include:

Species/Critical Habitat	Scientific Name	Status	Determination
Gray Wolf	<i>Canis lupus</i>	Endangered	No effect
Northern Long-eared Bat	<i>Myotis septentrionalis</i>	Threatened	May affect, but is not likely to adversely affect
Piping Plover	<i>Charadrius melodus</i>	Threatened	May affect, but is not likely to adversely affect
Red Knot	<i>Calidris canutus rufa</i>	Threatened	May affect, but is not likely to adversely affect
Whooping Crane	<i>Grus americana</i>	Endangered	May affect, but is not likely to adversely affect

The EPA is utilizing the information provided by the USFWS IPaC system and has had an informal phone consultation with the representative at the Bismarck, North Dakota USFWS field office on February 4, 2019 to identify a determination for each species in the table above. The EPA also sent a letter to USFWS to seek concurrence with the EPA's determination before public notice of the Permit.

Biological Evaluation

The justification to support the determination for the species are as follows. This facility was previously covered under the EPA Region 8 wastewater lagoon general permit. There will be no expected changes in water quality in the receiving water and no new construction for this facility. Any water discharged will have been treated to applicable water quality standards, criteria, and requirements; therefore, there are no expected changes or impacts to downstream habitats.

Gray Wolf

The facility location is outside of their habitat for Gray Wolf. They are terrestrial species. The EPA's determination is "No effect".

Northern Long-eared Bat

The facility location may have some suitable habitats for Northern Long-eared Bat (NLEB). NLEB can be found in areas of wooded habitat (trees greater than 3 inches of Diameter Breast Height (DBH)). There will not be any new construction for this location. Future new construction can be covered under 4(d) Rule. However, the treated water discharges to the wetland before it enters Devils Lake. This species may use the wetland for a short period of time during the year. The EPA's determination is "may affect, but is not likely to adversely affect".

Piping Plover

Currently, the facility location is not suitable habitat for Piping Plover. However, the treated water discharges to the wetland before enters to the Devils Lake. These species may use the wetland for a short period of time during the year. The EPA's determination is "may affect, but is not likely to adversely affect".

Red Knot

Currently, the facility location is not suitable habitat for Red Knot. However, the treated water discharges to the wetland before enters to the Devils Lake. These species may use the wetland for a short period of time during the year. The EPA's determination is "may affect, but is not likely to adversely affect".

Whooping Crane

The facility location may have some suitable habitats for Whooping Crane. However, the treated water discharges to the wetland before enters to the Devils Lake. These species may migrate and use the wetland for a short period of time during the migration period of the year. The wetland and open fields offer stop-over habitat for these birds. The EPA's determination is "may affect, but is not likely to adversely affect".

Based on the IPaC information and the informal consultation determination with the North Dakota USFWS field office representative, the EPA determined this Permit will have "no effect" or "may affect, but is not likely to adversely affect" some species as described in the table above.

The EPA received a concurrence letter dated April 2, 2019, from the USFWS North Dakota field office on this determination.

8. National Historic Preservation Act (NHPA) Requirements

Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. § 470(f) requires that federal agencies consider the effects of federal undertakings on historic properties. The EPA has evaluated its planned issuance of the NPDES Permit for Spirit Lake Casino and Resort to assess this action's potential effects on any listed or eligible historic properties or cultural resources. This correspondence is typically conducted with the Tribal Historic Preservation Office (THPO). The EPA does not anticipate any impacts on listed/eligible historic properties or cultural resources because there is no listed historic site close to this facility.

During the public comment period, the EPA notified the THPOs of the Spirit Lake Tribe of the planned issuance of this NPDES Permit and request their input on potential effects on historic properties and the EPA's preliminary determination in this regard.

9. Miscellaneous

This Permit will be reissued in approximately five years and the Permit effective date and expiration date will be determined at time of issuance.

Prepared by: Qian Zhang, P.E., Wastewater Section, 303-312-6267
February 6, 2019

Reviewed by: Wastewater Section Staff
February 26, 2019

10. Addendum:

This permit was public noticed on May 6, 2019. The 30 day public comment period closed on June 6, 2019. There were no public comments received.