

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEMS (NPDES)  
STATEMENT OF BASIS FOR PRAIRIE KNIGHTS CASINO  
PERMIT # ND-0031135  
October 16, 2018**

|                            |                                                                             |
|----------------------------|-----------------------------------------------------------------------------|
| PERMITTEE:                 | Prairie Knights Casino                                                      |
| FACILITY NAME AND ADDRESS: | Prairie Knights Casino<br>7932 Highway 24<br>Fort Yates, North Dakota 58538 |
| PERMIT NUMBER:             | ND-0031135                                                                  |
| RESPONSIBLE OFFICIAL:      | Wayne Bradley<br>Assistant General Manager<br>(701) 854-7750                |
| FACILITY CONTACT:          | Wayne Hosie<br>Maintenance Head Supervisor<br>(701) 854-7717                |
| PERMIT TYPE:               | Minor, Indian Country                                                       |
| TYPE OF TREATMENT:         | Activated Sludge Package Plant                                              |
| FACILITY LOCATION:         | North 1/2 of Section 12, Township 132 N, Range 80 W                         |
| DISCHARGE LOCATION(S):     | Latitude 46.272717°N<br>Longitude 100.635361°W                              |
| RECEIVING WATER:           | An unnamed tributary to Fool Bear Creek, a tributary to Lake Sakakawea      |

## **1 Purpose of this Statement of Basis**

This statement of basis (SOB) is for the issuance of NPDES permit number ND-0031135 to the Prairie Knights Casino located on the Standing Rock Indian Reservation. The Permit establishes effluent limitations for discharges of wastewater from the wastewater treatment plant. The SOB explains the nature of the discharges, and the EPA's decisions for limiting the pollutants in the wastewater, as well as the regulatory and technical basis for these decisions.

The Standing Rock Tribe has not developed water quality standards and has not been approved for Treatment as a State (TAS). The EPA Region 8 is the permitting authority for facilities located in Indian country located within Region 8 states. EPA supports implementation of federal environmental laws consistent with the federal trust responsibility, the government-to-government relationship, and EPA's 1984 Indian Policy.

## **2 Summary**

Prairie Knights Casino is owned and operated by the Standing Rock Sioux Tribe members. The casino is located approximately 16 miles North of Fort Yates, ND, and three miles from the Missouri River.

Prairie Knights Casino, 96 room hotel, and corresponding wastewater lagoon system were constructed in 1993. Wastewater discharges were permitted under the Lagoon General Permit (LGP), permit number NDG589202. Wastewater was collected and treated in the lagoon system before discharging to an unnamed tributary of Fool Bear Creek. In 2004, major renovations were completed including addition of 104 hotel rooms, an events center and rehabilitation of the lagoon treatment system. In 2011, an Ecolo Chief activated sludge WWTP was installed and has since treated all wastewater from the facility. With the installation of the Ecolo Chief WWTP, wastewater discharges are no longer applicable for LGP coverage, therefore, an individual NPDES permit must be issued.

The WWTP receives wastewater from the casino, hotel, four restaurants located inside the casino (The Hunters Club, Feast of the Rock, The Prairie Bar and Tatanka Bar), a recreational vehicle dump station, and a gas station. The dump station is monitored by CCTV and only receives wastewater from vehicles that stay at the onsite campground.

A grease interceptor is installed prior to the WWTP headworks to reduce loading from the restaurants. The interceptor contents are removed by a contractor and disposed of offsite every three months.

The carwash uses a closed loop recycled water system for washing activities. When the water has reached the end of its useful life, an outside contractor removes the water and associated solids for disposal offsite.

Figure 1 - Aerial Image of Prairie Knights Casino



### 3 Treatment Process

The current WWTP is an Ecolo Chief activated sludge plant installed in 2011. The EPA was not aware of the installation until 2015 when an inspection was conducted by the EPA. Currently the flow rate at the discharge point is not measured but estimated at 0.04 million gallons per day (mgd). The Permit requires installation of a flow measurement device within three months of the Permit's effective date.

The lagoons from the original treatment plant still remain intact with their outfall. Currently they are used for the disposal of sludge from the Ecolo Chief Plant. The lagoons are identified as "settling ponds" in Discharges from the lagoon system occurred at outfall 001. Outfall 001 must be decommissioned in a manner to prevent discharges within three months of the effective date of the Permit. Discharges from Outfall 001 are not covered under this permit and will be considered a violation of the Clean Water Act.

#### 3.1 Chemicals Used

No chemicals are added during treatment of the wastewater. Priority pollutants as defined by 40 CFR Part 423 Appendix A are not used or stored onsite. The absence of priority pollutants onsite justifies the assumption that the wastewater will not contain these pollutants which require additional monitoring.

#### **4 Description of Receiving Water**

The Prairie Knights Casino WWTP continuously discharges treated wastewater to an unnamed tributary of Fool Bear Creek. The Standing Rock Sioux Tribal government has not developed water quality standards for discharges on the Reservation. In the absence of applicable water quality standards (WQS), the EPA is tasked with identifying the beneficial uses of receiving waters and developing pollutant discharge limits to preserve these uses. After receiving citizen complaints and viewing satellite pictures, the EPA has determined the unnamed tributary's beneficial uses include, at a minimum, livestock watering and agriculture use.

Section 101(a)(2) of the Clean Water Act states "it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water to be achieved by July 1, 1983" (Fishable, Swimmable). To achieve this Congressional goal in the absence of Tribal WQS, the EPA considers the beneficial uses of the receiving waters to include aquatic life and recreation.

The State of North Dakota's water quality standards are not enforceable on the Reservation. The State's water quality standards are considered in determining if discharges from this facility has reasonable potential to violate state water quality standards downstream.

The WWTP discharge point is two miles from the confluence between the unnamed drainage and Fool Bear Creek, then another mile to the Missouri River.

#### **5 Wastewater Effluent Characterization**

The effluent from the casino and associated business activities is expected to most closely resemble domestic and restaurant wastewater. The grease interceptor will remove grease and solids from the restaurant waste streams reducing the loading in the WWTP influent. The WWTP is an activated sludge plant and is expected to meet the technology based effluent limits established for discharges from Publicly Owned Treatment Works (POTW) implementing secondary treatment (40 CFR §133).

#### **6 Inspections**

An inspection was conducted by the EPA on May 12<sup>th</sup>, 2015. At the time of inspection, it was determined that the newly installed WWTP did not qualify for coverage under the Lagoon General Permit. The facility operator was informed of the requirements to apply for coverage under an individual permit.

## 7 Major Changes From Previous Permit

Effluent discharges were conditionally allowed under the LGP. The LGP effluent limits are outlined in Table 1 below. The method of treatment (activated sludge) does not qualify for coverage under the LGP. This Permit is an individual permit with independently developed effluent limitations.

*Table 1 - Effluent Limitations from Lagoon General Permit*

|                              | 30-Day<br>Average a/ | 7-Day<br>Average a/ | Daily<br>Minimum a/ | Daily<br>Maximum a/ |
|------------------------------|----------------------|---------------------|---------------------|---------------------|
| BOD5, mg/L                   | 30                   | 45                  | N/A                 | N/A                 |
| Total Suspended Solids, mg/L | 30                   | 45                  | N/A                 | N/A                 |
| Oil and Grease (mg/L)        | NA                   | NA                  | N/A                 | 10                  |
| pH Standard Units            | N/A                  | N/A                 | 6.5                 | 9.0                 |

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

## 8 Proposed Effluent Limitations

### 8.1 Water Quality Based Effluent Limitations

Section 301 of the CWA requires the EPA to develop NPDES effluent limits through evaluating water quality standards (WQS) and treatment technology standards. In the absence of applicable water quality standards, the EPA must conduct an evaluation of the Federal water quality criteria (WQC) and the assimilative capacity for the receiving stream (see 40 CFR § 304).

This evaluation is used to establish water quality based effluent limits to ensure protection of the receiving stream's water quality and its existing and designated beneficial uses. The EPA has determined beneficial uses of the receiving waters to include: livestock watering, agriculture use, fisheries, and full contact recreation.

The Tribe has not been approved by the EPA for TAS which grants authorization to establish WQS that must be conditionally approved by the EPA. As of the writing of this permit the Tribes have not applied for TAS or proposed WQS for the Reservation.

The EPA relied on CWA § 301(b)(1)(C) in establishing WQBELs based on EPA's Section 304(a) recommended WQC to protect the above mentioned uses in the receiving waters.

The Missouri River has a 15-year low flow of 10,000 cubic feet per second providing a potential dilution of effluent in excess of 1,000,000:1. (2003 USGS station 06342500, Missouri River at Bismark ND) Reasonable potential does not exist for issuance of this Permit to cause an exceedance of the WQS in waters of the State in North Dakota and South Dakota.

## 8.2 Technology Based Effluent Limitations

The National Secondary Standards (NSS) for secondary treatment (40 CFR § 133) have been developed by the EPA to be economical and protective of water quality. The NSS will be referenced for establishing effluent limits. The EPA and Tribes have not developed additional technological based effluent limitations that apply to discharges from the WTP.

## 8.3 Proposed Effluent Limitations

Table 2 summarizes the effluent limits developed for this Permit.

*Table 2 -Proposed effluent limitations*

|                              | 30-Day<br>Average a/ | 7-Day<br>Average a/ | Daily<br>Minimum a/ | Daily<br>Maximum a/ |
|------------------------------|----------------------|---------------------|---------------------|---------------------|
| BOD5, mg/L                   | 30                   | 45                  | N/A                 | N/A                 |
| Total Suspended Solids, mg/L | 30                   | 45                  | N/A                 | N/A                 |
| E. coli, number/100 mL       | 126                  | N/A                 | N/A                 | 410                 |
| Oil and Grease, mg/L         | NA                   | NA                  | N/A                 | 10                  |
| pH, Standard Units           | N/A                  | N/A                 | 6.5                 | 9.0                 |

**BOD5** - Limitation matches the NSS.

**Total Suspended Solids** - Limitation matches the NSS.

**pH** - The Aquatic Life Criteria were identified as having the most stringent limit which would ensure that the fisheries depending on Fool Bear Creek for spawning habitat are protected. The minimum pH is increased from 6.0 (NSS) to 6.5 (Criteria) standard units.

**Oil and Grease** - effluent limitation is implemented due to the restaurants and gas station on the premises. 10mg/L is consistent with the previous permit. Fool Bear Creek is not expected to have ambient levels of oil and grease due to the lack of development in the water shed.

**E. coli** – The Missouri River is the receiving water body with primary contact recreation beneficial use. To meet the goal of maintaining the Swimmable status established in Section 101(a)(2) of the Clean Water Act, E. coli effluent limits have been developed from the Federal Water Quality Criteria for Recreation. A 30-day average and daily maximum have been identified. The 30-day average shall not exceed 126 number/100 mL. The daily maximum shall not exceed 410 number/100 mL using the same method. These effluent limits are to be maintained at the WWTP outfall to the unnamed drainage. The *E. coli* effluent limitations meet the requirements of anti-backsliding (CWA section 402(o)) by requiring a level of treatment equal to or more restrictive than the previous permit.

**Phosphorus and Nitrogen** - Not assigned effluent limits due to the absence of applicable Tribal water quality standards.

## 9 MONITORING REQUIREMENTS

The monitoring frequency has been increased from the intermittent monitoring required in the LGP to account for the continuous discharge. The monitoring frequency for each analyte is outlined in Table 3.

The EPA has identified ammonia, nitrogen and phosphorus as pollutants of concern from WWTPs. Ammonia is naturally occurring and can be toxic to aquatic organisms at low concentrations dependent on pH and temperature. Nitrogen, and phosphorus have been identified as contributing to the occurrence of harmful algal blooms. The intention of monitoring these constituents is to collect data which will be referenced during re-issuance of this permit.

Receiving water monitoring for ammonia toxicity is not required by this permit. The WWTP discharge is expected to contribute most of the flow in the unnamed drainage up to Fool Bear Creek. Ammonia Toxicity limits may be applied at the outfall in future permits.

*Table 3 – Monitoring Requirements Outfall 002*

| Effluent Characteristic                       | Frequency | Sample Type <u>a/</u> |
|-----------------------------------------------|-----------|-----------------------|
| Total Flow, mgd <u>b/</u>                     | Weekly    | Measured              |
| Total Suspended Solids (mg/L)                 | Monthly   | Grab <u>a/</u>        |
| BOD <sub>5</sub> , mg/L                       | Monthly   | Grab <u>a/</u>        |
| pH, units                                     | Weekly    | Grab <u>a/</u>        |
| Total Kjeldahl Nitrogen (TKN), mg/L <u>c/</u> | Monthly   | Grab <u>a/</u>        |
| Ammonia (as N), mg/L                          | Monthly   | Grab <u>a/</u>        |
| Nitrate/nitrite (as N), mg/L                  | Monthly   | Grab                  |
| Oil and Grease, mg/L                          | Monthly   | Grab <u>a/</u>        |
| <i>E. coli</i> , Number/100mL <u>c/</u>       | Monthly   | Grab <u>a/</u>        |
| Total Phosphorus (P), mg/L <u>c/</u>          | Monthly   | Grab <u>a/</u>        |
| Temperature F°                                | Weekly    | Measured              |

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

b/ Flow measurements of effluent volume shall be made by reading the metered discharge

c/ Phosphorus, Nitrogen, and *E. coli* monitoring data will be utilized to assess if water quality effects on streams require future limitations to protect beneficial uses.

## 10 REPORTING REQUIREMENTS

*Table 4 – DMR Due Dates*

| <b>Compliance Monitoring Period</b> | <b>Due Date</b> |
|-------------------------------------|-----------------|
| January through March               | April 28        |
| April through June                  | July 28         |
| July through September              | October 28      |
| October through December            | January 28      |

With the effective date of this Permit, the Permittee must electronically report all monitoring data on a quarterly frequency using NetDMR. Electronic submissions by the Permittee must be sent to the EPA Region 8 no later than the 28th day of the month following the completed reporting period. (See Table 4) 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>.

The Permittee must submit a copy of the DMR to the Standing Rock Sioux. The Permittee may submit a copy to the Standing Rock Sioux Tribe by one of three ways:

A paper copy may be mailed.

The email address for Standing Rock Sioux Tribe may be added to the electronic submittal through NetDMR.

The Permittee may provide Standing Rock Sioux Tribe viewing rights through NetDMR.

The submission method is to be selected by the permittee.

## 11 INSPECTION REQUIREMENTS

On a daily basis the permittee shall inspect the wastewater treatment facility. The permittee shall maintain inspection logs documenting all information obtained during the inspection. At a minimum the permittee must document the discharge flow rate and visual presence/absence of grease.

## 12 ENDANGERED SPECIES CONSIDERATIONS

The Endangered Species Act (ESA) of 1973 requires all Federal Agencies to ensure, in consultation with the U.S. Fish and Wildlife Service (FWS), that any Federal action carried out by the Agency is not likely to jeopardize the continued existence of any endangered species or threatened species (together, “listed” species), or result in the adverse modification or destruction of habitat of such species that is designated by the FWS 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 FWS, 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)).

Table 5 summarizes the biological evaluation conducted by the EPA. The EPA determined “No effect” for the species identified using the IPAC tool found at <https://ecos.fws.gov/ipac/>.

The local Fish and Wildlife Service will be contacted during public notice of this permit for informal consultation in regard to the EPA's determination. The consultation will be summarized in the final statement of basis before permit issuance.

*Table 5 - Endangered and threatened species identified to inhabit the watershed of Fool Bear Creek*

| Species                 | Scientific Name               | Status     |
|-------------------------|-------------------------------|------------|
| Least Tern              | <i>Sterna antillarum</i>      | Endangered |
| Piping Plover           | <i>Charadrius melodus</i>     | Threatened |
| Red Knot                | <i>Calidris canutus rufa</i>  | Threatened |
| Whooping Crane          | <i>Grus americana</i>         | Endangered |
| Pallid Sturgeon         | <i>Scaphirhynchus albus</i>   | Endangered |
| Gray Wolf               | <i>Canis lupus</i>            | Endangered |
| Northern Long-Eared Bat | <i>Myotis septentrionalis</i> | Threatened |

#### 12.1 Biological Evaluation

**Least Tern** - May affect, not likely to adversely affect.

**Piping Plover** - May affect, not likely to adversely affect.

**Red Knot** - May affect, not likely to adversely affect.

**Whooping Crane** - May affect, not likely to adversely affect.

**Pallid Sturgeon** May affect, not likely to adversely affect.

**Gray Wolf** – Terrestrial species, not likely to affect

**Northern Long Eared Bat** – Terrestrial species, not likely to affect

### 13 NATIONAL HISTORIC PRESERVATION ACT 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 Tribal Historic Preservation Office Cultural Resource Geographic Research Information Display (CRGRID), and the National Register of Historic Places digital archive list were used to determine historic places.

Based upon the information provided by the National Park Service database and the Tribal Historic Preservation Office resource, the EPA does not anticipate any impacts on listed/eligible historic properties or cultural resources due to this permit issuance and

corresponding discharges from Outfall 002. The Tribal historic preservation officer will be contacted during the public notice period to provide concurrence.

The Standing Rock Tribal Historic Preservation Officer will be notified of the opportunity to comment during Public Notice of this Permit.

#### **14 MISCELLANEOUS**

The Permit will be effective for approximately five years, but not to exceed five years. The effective date and expiration date of the Permit will be determined at the time of permit issuance.

Paul Garrison  
Region 8 EPA  
303-312-6016