UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8, MONTANA OFFICE
FEDERAL BUILDING, 10 W. 15th STREET, SUITE 3200
HELENA, MONTANA 59626

STATEMENT OF BASIS

PERMITEE:	Consolidated Charlo-Lake County Water & Sewer District P.O. Box 62 Charlo, MT 59824
FACILITY:	Charlo Wastewater Treatment Facility
PERMIT NO.:	MT0022551
Contact:	Lelia Roberts, Secretary-Manager Consolidated Charlo-Lake County Water & Sewer District P.O. Box 62 Charlo, MT 59824 (406)644-2524
PERMIT TYPE:	Minor POTW, Indian Country, Renewal
RECEIVING WATER:	Unnamed swale that runs to Dublin Gulch which leads to Mission Creek, approximately 7 miles away
LOCATION:	57201 Highway 212, Charlo, MT ½ mile south of Charlo on Highway 212 SW ¼ of Section 5, Township 19 N, Range 20 W Latitude 47° 25' 46" N and Longitude 114° 10' 32" West
POPULATION:	350

A. Permit Status

This statement of basis is for the renewal of the National Pollutant Discharge Elimination System (NPDES) permit for the discharge from the Charlo Wastewater Treatment Facility (WWTF). The WWTF and its discharge are located within the boundaries of the Flathead Reservation which is home to the Confederated Salish and Kootenai Tribes (CSKT). The CSKT has been approved by the Environmental Protection Agency (EPA) for "Treatment as a State." The CSKT's water quality standards (WQS) have been approved by EPA.

The previous permit was issued on July 1, 2007 and expires on June 30, 2012. The previous permit will remain in effect until this permit is reissued.

B. Facility Description

The WWTF consists of two aerated cells, a facultative cell and two wetland cells. Two lines run from town to a lift station at the lagoons. From the lift station, a splitter can direct flow to either of the aerated cells. Normally the three cells will operate in series. The first three cells are lined and have a two million gallon capacity each. The fourth and fifth cells are wetland cells which operate in series and are also lined. The discharge flows from the second wetland cell into the

aerator building where it is treated by UV disinfection and passes through a small weir where flow can be measured. The design flow for the system is 0.08555 million gallons per day (mgd).

C. Past Discharge Data

Since the previous permit was issued until March 2011, the WWTF has discharged four times. Incomplete Discharge Monitoring Reports (DMRs) were submitted for the four discharges. All flow data as well as other data was missing. DMRs since March 2011 are also incomplete and will not be used to develop this permit. Based on the limited data available, there were no violations of permit limits.

D. Technology Based Effluent Limitations

Treated effluent from the WWTF is subject to the Secondary Treatment Regulations found at 40 CFR Part 133. Regulations at 40 CFR 133.102 require that the minimum level of effluent quality for secondary treatment is 30-day average concentrations of BOD_5 and TSS that do not exceed 30 mg/L and 7-day average concentrations of these parameters that do not exceed 45 mg/L. The secondary treatment regulations also provide a limit for pH to be maintained between 6.0 and 9.0. The previous permit contained limits for Total Suspended Solids (TSS) based on 40 CFR 133.105(d) which provides adjusted TSS requirements of 100 mg/L for Waste Stabilization ponds. Based on the discharge data provided for the four discharged, TSS ranged from 4 to 14 mg/L well below the 40 CFR 133.102 requirement. Therefore the permit limit for TSS will be set at 30 mg/L for the 30 day average and 45 mg/L for the 7 day average.

The percent removal requirements for BOD_5 and TSS required by 40 CFR 133.102(a)(3) and (b)(3) or 40 CFR 133.105(a)(3) and (b)(3) are not included in this permit. It has been the experience of EPA Region 8 that there are practical problems that prevent the determination of the actual percent removals of BOD 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 best professional judgment, percent removal requirements will not be required in this permit.

E. Water Quality Based Effluent Limitations

1. Water Quality Classification

Discharge from the WWTF is piped underground for approximately 300 feet to Highway 212 where it daylights in a swale on the north side of the highway at approximately 47° 25' 46" and 114° 10' 32". In an internal memo dated March 13, 2000, the Salish and Kootenai staff hydrologist determined the swale to be an intermittent water body. The effluent commingles with irrigation return flows before flowing under the highway in a culvert. The flow emerges and ponds in a pasture on the south side of the highway belonging to the Rousch Ranch. The flow is either used for irrigation, continues downstream to Dublin Gulch about a mile away, or runs dry at certain times of year.

According to the Tribe's 401 certification for a previous permit, the surface water that will receive the discharge is an unnamed tributary to Dublin Gulch, which drains into Mission Creek. Once the swale enters Dublin Gulch, the Gulch flows for approximately 7 miles before joining Mission Creek. Mission Creek drains into the Flathead River. Flathead River and its tributaries are classified as B-1 according to the Tribal Water Quality Standards. Waters classified B-1 must

be maintained suitable for drinking and culinary and food processing purposes after conventional treatment; bathing, swimming and recreation; wildlife (birds, mammals, amphibians and reptiles); the growth and propagation of salmonid fishes and associated aquatic life; and agricultural and industrial water supply purposes.

2. Ammonia

The previous permit used data collected from the swale during non-discharge events to determine the applicable standards for ammonia. The results are shown in the table below:

Table 1. Ammonia Standards

Condition	Salmonids Present	Early Life Stages Present	Ambient Condition		Water Quality Standard
			pH	Temperature ° C	
Acute	Yes	NA	9.12 a/	NA	0.855
Chronic	NA	Yes	8.6 b/	19	0.691

NA- Not Applicable
a/ Based on 95th percentile of data.
b/ Based on 75th percentile of data.

Ammonia limits were not set in the previous permit because discharge data from the newly rebuilt facility was not available. Since then, four ammonia samples were collected during the four discharge events. The values were: 7.56 mg/L, 0.66 mg/L, 0.35 mg/L, and 2 mg/L. Because of the limited data points and the high variability, there is insufficient data at this time to determine the need for an ammonia limit. Ammonia monitoring will be retained the permit.

3. E. coli

The Tribal WQS contain standards for E. coli. The geometric mean of E. coli may not exceed 126 colony forming units (cfu)/100 mL if resulting from domestic sewage and 10% may not exceed 252 cfu/100 ml. A 30 day average effluent limit of 126 cfu/100 mL and a 7 day limit of 252 cfu/100 ml will be retained in this permit.

F. Effluent Limitations

The effluent limitations and the basis for the limitations are given in the table below:

Table 2: Effluent Limitations			
Effluent Characteristic	**30-Day Average**	**7-Day Average**	**Basis** a/
BOD_5, mg/L b/	30	45	Previous Permit 40 CFR 133.102
Total Suspended Solids, mg/L	30	45	40 CFR 133.102
E. coli, cfu/100 mL c/	126	252	WQS
The pH of the discharge shall not be less than 6.5 or greater than 9.0 at any time. d/			WQS
There shall be no discharge of floating solids or visible foam in other than trace amounts, nor shall there be a discharge which causes a visible sheen in the receiving waters. The concentration of oil and grease in any single sample shall not exceed 10 mg/L.			Previous Permit

a/ The basis of the effluent limitations is given below:

"Previous Permit" refers to limitations in the previous permit. The NPDES regulations (40 CFR Part 122.44(1)(1) Reissued permits) require that when a permit is renewed or reissued, interim limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit unless the circumstances on which the previous permit was issued have materially and substantially changed since the previous permit was issued and would constitute cause for permit modification or revocation and reissuance under 40 CFR Part 122.62.

"WQS" refers to effluent limitations based on water quality standards. See the section on Water Quality Considerations for information on how the effluent limitations were determined.

b/ The limits for biochemical oxygen demand (BOD_5) and TSS are based on 40 CFR 133.102, "Secondary Treatment Standards."

c/ The limit for E. coli applies year round.

d/ The limits for pH are based on tribal water quality standards. The standards for B-1 water bodies state that variation of hydrogen ion concentration within the range of 6.5 su to 9.0 su must be less than 0.5 su.

G. Self-Monitoring Requirements

All effluent samples shall be taken at the weir located in the aeration building. The permittee will be required to report the total number of days each discharge occurs on the DMR.

Table 3. Monitoring Requirements

Effluent Characteristic	Frequency	Sample Type a/
Flow, MGD	Monthly	Instantaneous
Effluent BOD_5, mg/L	Monthly	Grab
TSS, mg/L	Monthly	Grab
E. coli, # cfu/100 ml b/	Monthly	Grab
Ammonia Nitrogen, mg/L	Monthly	Grab
pH, standard units	Monthly	Instantaneous or Grab
Oil and Grease, Visual c/	Monthly	Visual

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

b/ Monitoring for E.coli applies year-round.

c/ In the event that an oil sheen or floating oil is observed in the discharge, a grab sample shall immediately be taken, analyzed, and reported.

G. Biosolids

The use and/or disposal of sewage sludge shall be done under the authorization of an NPDES permit issued for the use and/or disposal of sewage sludge by the EPA Region 8 biosolids program.

H. Whole Effluent Toxicity Monitoring

40 CFR 122.21(j)(5) specifies which publicly-owned treatment works must conduct whole effluent toxicity (WET) testing. WET testing is required for facilities with (1) a design flow greater than 1 mgd; (2) an approved pretreatment program. The Director may require other facilities to conduct WET testing based on the following considerations: (1) variability of pollutants; (2) ratio of effluent flow to receiving stream flow; (3) existing controls on point and non point sources; (4) receiving stream characteristics. EPA's analysis indicates that the facility is not required to conduct testing at this time. There are no industrial users discharging to the WWTF. At this time, the facility will not be required to conduct WET testing.

I. Endangered Species Act (ESA) Requirements

Section 7(a) of the Endangered Species Act requires federal agencies to insure that any actions authorized, funded, or carried out by an Agency are not likely to jeopardize the continued existence of any federally-listed endangered or threatened species or adversely modify or destroy critical habitat of such species.

According to the U.S. Fish and Wildlife Service, Montana Field Office, internet site at http://www.fws.gov/mountain-prairie/mt.html, Table 4 lists the federally listed threatened, endangered and candidate species and proposed and designated critical habitat found on the Flathead Reservation in Montana.

Table 4: Threatened, Endangered, and Candidate Species on the Flathead Reservation

Common Name	Scientific Name	Status	Habitat
Bull Trout	*Salvelinus confluentus*	Threatened; Critical Habitat	Clark Fork, Flathead, Kootenai, St Mary, and Belly River basins; cold water rivers and lakes.
Grizzly Bear	*Ursus arctos horribilia*	Threatened	Resident, transient; Alpine/subalpine coniferous forest
Canada Lynx	*Lynx canadensis*	Threatened	Resident; western Montana-montane spruce/fir forests
Spaldings's Campion (or "catchfly")	*Silence spaldingii*	Threatened	Upper Flathead River Fisher river drainages; Tobacco Valley – open grasslands with rough fescue or bluebunch wheatgrass
Water Howellia	*Howellia aquatilis*	Threatened	Wetlands; Swan Valley, Lake and Missoula Counties
Wolverine	*Gulo gulo luscus*	Candidate	High elevation alpine and boreal forests that are cold and receive enough winter precipitation to reliably maintain deep persistent snow late into the warm season
Whitebark Pine	*Pinus albicaulis*	Candidate	Forested areas in central and western Montana, in high-elevation, upper montane habitat near treeline

EPA finds this permit is Not Likely to Adversely Affect any of the species listed by the US Fish and Wildlife Service under the Endangered Species Act. The finding is based upon the following: (1) the renewed permit is for an existing facility; (2) the renewal of this permit does not allow for any increase in effluent limitations over the previous permit; (3) The facility does not provide any habitat for any of the endangered,

threatened, or candidate species listed in Table 4; and (4) effluent limits are protective of water quality.

J. National Historic Preservation Act (NHPS) 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. EPA has evaluated its planned reissuance of the NPDES permit for the Facility to assess this action's potential effects on any listed /eligible historic properties or cultural resources. EPA does not anticipate any impacts on listed/eligible historic properties or cultural resources because this permit is a renewal and will not be associated with any new ground disturbance or changes to the volume or point of discharge.

K. Total Maximum Daily Load

On June 21, 2000 and September 21, 2000, U.S. District Judge Donald W. Molloy issued orders stating that until all necessary total maximum daily loads (TMDLs) under Section 303(d) of the Clean Water Act are established for a particular water quality limited segment, the EPA is prohibited from issuing new permits or from increasing already permitted discharges under the NPDES program. (The orders were issued pursuant to the lawsuit Friends of the Wild Swan, et al., v. U.S. EPA, CV 97-35-DWM, District of Montana, Missoula Division.)

Although the Confederated Salish and Kootenai Tribes have adopted water quality standards that have been approved by EPA, they have not listed water bodies as impaired and developed a 303(d) list to require TMDLs. When EPA approved the State of Montana's 1996 list of impaired streams and lakes which included water bodies within tribal reservation boundaries, EPA specifically stated that the approval did not extend to waters in Indian Country. EPA finds that the issuance of this permit would not conflict with the Order because the permit limits are the same or lower than those in the previous permit, and the permit contains a condition that would allow the permit to be reopened to include any Waste Load Allocation applicable to discharges to Dublin Gulch are developed and approved by the Tribes and/or EPA.

L. Miscellaneous

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

Prepared by Rosemary Rowe
May 8, 2012

No comments were received during the public comment period.
Rosemary Rowe, July 19, 2012