



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8, MONTANA OFFICE

FEDERAL BUILDING, 10 W. 15<sup>th</sup> STREET, SUITE 3200

HELENA, MONTANA 59626

## STATEMENT OF BASIS

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PERMITTEE: City of Ronan  
Kim Aipperspach, Mayor  
207 Main Street SW, Suite A  
Ronan, MT 59864

FACILITY: Ronan Wastewater Treatment Facility

PERMIT NO: MT0021474

CONTACT: Chris Atkinson, Wastewater Operator  
207 Main Street SW, Suite A  
Ronan, MT 59864  
(406)676-4231

RECEIVING WATER: Unnamed Tributary of Crow Creek

POPULATION: 1,900

PERMIT TYPE: Minor, Renewal

### 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 Ronan 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 have 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 current permit was issued on June 1, 2008 and expires on May 31, 2013. The current permit will remain in effect until this permit is reissued.

### B. Facility Description

The WWTF is located in the southwest ¼ of Section 2, township 20 N, Range 20 W (latitude 47°31'14"N and longitude 114°6'59" West) at 205 Mink Lane. The WWTF consists of a lagoon system with three lined cells and two constructed wetland cells. Influent enters the lagoon system at the north end and is piped to cell 1. The flow pattern is from cell 1 to cell 2 to cell 3 and then into the wetland cells. Cells 1 and 2 are aerated by blowers. The aeration control building is located near the southwest corner of cell 1. An unused discharge pipe is located near the southwest corner of cell 1. Valves controlling flow from cells 1 through 3 can be adjusted to bypass the wetland cells and discharge through this pipe. The effluent from the wetlands cells discharge to a joint pipe, which leads to the permitted discharge point. Effluent

flow is measured at the discharge from each wetland cell at a flow measurement weir. The two flow measurements are added together to get the total discharge flow. The discharge is then disinfected at the UV building and discharged to an unnamed tributary of Crow Creek. Only the discharge from the UV building is permitted for discharge. Discharge samples are collected at the UV building.

C. Past Discharge Date

Data from the Discharge Monitoring Reports (DMRs) from 2008-2012 was used to compile the information in the table below.

<b>Table 1. Discharge Data</b>					
<b>Parameter</b>	<b>Range</b>	<b>Average</b>	<b>Permit Limits</b>	<b>Number of Data points</b>	<b>Number of Permit Limit Exceedances</b>
Flow, mgd, 30-Day Ave.	0.1184 – 0.5384	0.2938		49	
BOD <sub>5</sub> , mg/L, 30-Day-Ave.	1 -40	6.6	30 (30-da)	52	1
BOD <sub>5</sub> , % Removal	90 - 99	97	85	53	
TSS, mg/L, 30-Day Ave.	0.5 - 10	3.3	30	53	
TSS, % Removal	89 - 100	97	85	53	
p.H., s.u.	6 – 7.62		6.5 – 9.0 (min – max)		1
<i>E. coli</i> , cfu/100 ml	0.5 - 488	39.5	126 30-day ave	53	3
			252 7-day ave		3
Ammonia-Nitrogen, mg/L					
Summer, 30-Day Ave	0.4 – 17.2	4.84	0.74*	32	3
Summer, Daily Max	0.44 – 18.8	6.98	1.47*	28	3
Winter 30-day ave	0.23 – 23.3	11.01	1.79*	23	
Winter, daily max	0.28 -24.7	13	3.15*	24	

\*Effective June 1, 2012

There was one exceedance of the 30-day BOD<sub>5</sub> limit, and three of the 30-day and 7-day *E. coli* limits. There have been no exceedances of the *E. coli* limits in the last several years.

The current permit includes a compliance schedule for the permittee to comply with the ammonia limits. By four years from the effective date of the permit (June 1, 2012), the permittee was required to meet the permit limits shown in Table 1 above for ammonia nitrogen. As shown in Table 1, the permittee has not consistently met the summer limits for ammonia-nitrogen. An Administrative Order will be issued to the permittee to provide for additional time and options for meeting the ammonia limit.

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<sub>5</sub> 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 of between 6.0 and 9.0 s.u. and removal efficiencies of 85% for BOD<sub>5</sub> and TSS.

E. Water Quality Based Effluent Limitations

1. Water Quality Classification

According to the Tribal WQS, the Flathead River and its tributaries downstream from the highway bridge at Polson are classified B-1, with exceptions. As this un-named tributary does not fall within the exceptions, it is classified as B-1. B-1 waters are to be maintained suitable for drinking, culinary and food processing after conventional treatment; bathing, swimming and recreation; growth and propagation of salmonid fishes and associated aquatic life; waterfowl and furbearers; and agricultural water supply.

2. Ammonia

The Tribal aquatic life standards for ammonia are dependent upon the pH and the temperature of the receiving water body. The current permit used data from the nearest surface water monitoring station on Crow Creek to establish the relevant water quality standards. The WWTF discharges to an intermittent tributary of Crow Creek. Therefore, The WQS were determined to apply at the end of the discharge pipe. The Water Quality Based Effluent Limitations (WQBELs) are shown in Table 2.

<b>Table 2. WQBELs for Ammonia Nitrogen</b>		
<b>Season</b>	<b>30- Day Average, mg/L</b>	<b>Daily Maximum, mg/L</b>
Winter, Nov. 1 – March 31	1.79	3.15
Summer, April 1 – Oct. 31	0.74	1.47

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. The current permit contains a 30 day average limit of 126 cfu/100 ml and a 7 day limit of 252 cfu/100 ml. These limits will be maintained in the reissued permit.

E. Effluent Limitations

The effluent limitations and the basis for the limitations are given in the table below. All effluent limitations are effective on the effective date of the permit.

<b>Table 3. Effluent Limitations</b>				
<b>Effluent Characteristic</b>	<b>30-Day Average</b>	<b>7- Day Average</b>	<b>Daily Maximum</b>	<b>Basis</b>
BOD <sub>5</sub> , mg/L	30	45	N/A	40 CFR 133.102(a)(1)&(2)
Percent BOD <sub>5</sub> removal	85	N/A	N/A	40 CFR 133.102(a)(3)
TSS, mg/L	30	45	N/A	40 CFR 133.102(b)(1)&(2)
Percent TSS removal	85	N/A	N/A	40 CFR 133.102(b)(3)
<i>E. coli</i> , cfu/100 ml <u>a/</u>	126	252	N/A	WQS
Ammonia Nitrogen, mg/L				
Winter <u>b/</u>	1.79	N/A	3.15	WQS
Summer <u>c/</u>	0.74		1.47	
The pH of the discharge shall not be less than 6.5 or greater than 9.0 at any time.				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 limit for *E. coli* applies year round.

b/ Winter is defined as November 1 – March 31.

c/ Summer is defined as April 1 – October 31.

G. Self-Monitoring Requirements

All samples will be taken at the UV building. Flow will be measured at the flow measurement weirs where the discharge leaves each wetland cell. Annual monitoring for nitrate-nitrogen, Total Kjeldahl Nitrogen, and total phosphorus have been added to the monitoring requirements to comply with the permit application requirements at 40 CFR 122.21(j)(4)(iii).

<b>Table 4. Effluent Monitoring Requirements</b>		
<b>Effluent Characteristic</b>	<b>Frequency</b>	<b>Sample Type <u>a/</u></b>
Flow, MGD	Weekly	Instantaneous
Effluent BOD <sub>5</sub> , mg/L	Monthly	Grab
Influent BOD <sub>5</sub> , mg/L	Monthly	Grab
Effluent TSS, mg/L	Monthly	Grab
Influent TSS, mg/L	Monthly	Grab
<i>E. coli</i> , # cfu/100 ml <u>b/</u>	Monthly	Grab
Ammonia Nitrogen, mg/L	Weekly	Grab
pH	Monthly	Instantaneous
Oil and Grease <u>c/</u>	Monthly	Visual
Nitrate-Nitrogen, mg/L	Annually	Grab
Nitrite-Nitrogen, mg/L	Annually	Grab
Total K Nitrogen, mg/L	Annually	Grab
Total Nitrogen, mg/L	Annually	Calculated
Total phosphorus, mg/L	Annually	Grab

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.

H. 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.

I. 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.

J. 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 5 lists the federally listed threatened, endangered and candidate species and proposed and designated critical habitat found on the Flathead Reservation in Montana.

<b>Table 5: Threatened, Endangered, and Candidate Species on the Flathead Reservation</b>			
<b>Common Name</b>	<b>Scientific Name</b>	<b>Status</b>	<b>Habitat</b>
Bull Trout	<i>Salvelinus confluentus</i>	Threatened; Critical Habitat	Clark Fork, Flathead, Kootenai, St Mary, and Belly River basins; cold water rivers and lakes.
Grizzly Bear	<i>Ursus arctos horribilia</i>	Threatened	Resident, transient; Alpine/subalpine coniferous forest
Canada Lynx	<i>Lynx canadensis</i>	Threatened	Resident; western Montana-montane spruce/fir forests
Spaldings's Campion (or "catchfly")	<i>Silence spaldingii</i>	Threatened	Upper Flathead River Fisher river drainages; Tobacco Valley – open grasslands with rough fescue or bluebunch wheatgrass
Water Howellia	<i>Howellia aquatilis</i>	Threatened	Wetlands; Swan Valley, Lake and Missoula Counties
Wolverine	<i>Gulo gulo luscus</i>	Proposed	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	<i>Pinus albicaulis</i>	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 5; and (4) effluent limits are protective of water quality.

K. 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.

L. 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 the discharge developed and approved by the Tribes and/or EPA.

M. 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  
April 9, 2013