

**DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
MONTANA POLLUTANT DISCHARGE ELIMINATION SYSTEM  
(MPDES)**

**Permit Fact Sheet**

PERMITTEE: Town of Winifred  
PERMIT NO.: MT0031453  
RECEIVING WATER: Conveyance to Dog Creek

**FACILITY INFORMATION**

Name: Winifred Wastewater Treatment Facility  
Location: 47° 33' 55" N latitude, 109° 22' 24" W longitude  
T21N, R18E, Section 26  
Winifred, MT 59489  
Contact: Neil Rich, Operator  
PO Box 181  
Winifred, MT 59489

**FEE INFORMATION**

Type of Facility: Minor Publicly Owned Treatment Works  
Number of Outfalls: 1 (For Fee Determination Only)  
Type of Outfall: 001 – Facility Discharge

## I. Summary

Department of Environmental Quality (DEQ) proposes to renew the Montana Pollutant Discharge Elimination System (MPDES) permit for Winifred Wastewater Treatment Facility (WWTF), MT0031453. This fact sheet documents the legal requirements and technical rationale that serve the decision-making process involved with developing effluent limits, monitoring and reporting requirements, and special conditions which are specific to Winifred.

### A. Permit Status

The previous permit became effective on April 1, 2012 and expired on March 31, 2017. DEQ received the MPDES renewal permit application (Forms 1 and 2A) for Winifred on September 29, 2016 and applicable fees on September 22, 2016. DEQ considered the application complete and administratively extended the permit on December 7, 2016.

### B. Proposed Changes to Effluent Limits

For this permit renewal, DEQ proposes the following:

- Limits for total suspended solids (TSS) and 5-day biochemical oxygen demand (BOD<sub>5</sub>) are set at National Secondary Standards.
- Annual monitoring for oil and grease (O&G) is changed to visual observations during discharge. Additional monitoring is required when a visual sheen is observed.
- Discharging from July 1<sup>st</sup> to September 30<sup>th</sup> is prohibited each year to prevent pollution of state waters from nutrients (nitrogen and phosphorus)
- Ammonia limits are removed, but monitoring of effluent is still required. Ambient monitoring for pH and temperature is also required to better assess reasonable potential in the future.

## II. Facility Information

### A. Facility Description and Design Criteria

The Winifred WWTF serves the Town of Winifred with a current population of approximately 205 people. The facility is a single-celled facultative lagoon constructed in 1961 with 2.5 acres in surface area and a volume of approximately 4.1 million gallons. Accumulated sludge that has been collecting over the lagoon's history has reduced the useable volume considerably and the design flow of the facility is unknown.

Discharge since the 2012-permit has been intermittent, last reported in 2017, to a conveyance to Dog Creek. In 2010, the town completed an infiltration/inflow (I/I) project to significantly reduce wastewater flows by replacing or repairing 14,000 feet of the sewer collection system. Since the facility's I/I project, wastewater flows have been significantly reduced, making it unnecessary for the facility to discharge as often as they have in the past. The town completed a Preliminary Engineering Report for Phase 2 of sewer upgrades in April of 2012, but lack of funding, despite grant and loan applications, has prevented further upgrades to the WWTF.

### B. Effluent Quality and Existing Permit Requirements

Table 1 lists the 2012-permit limits and effluent characteristics for Winifred for the period of record (POR), April 2012 through July 2018. During the POR, the facility reported data for only one discharge event occurring in March of 2017. A discharge also occurred during a compliance evaluation inspection in February of 2015, but no data was reported.

<b>Table 1: Effluent Characteristics for the POR April 2012 through July 2018</b>					
<b>Parameter</b>	<b>Units</b>	<b>Permit Limit</b>			<b>Sample Value <sup>(2)</sup></b>
		Average Monthly <sup>(1)</sup>	Average Weekly <sup>(1)</sup>	Max Daily <sup>(1)</sup>	
5-Day Biochemical Oxygen Demand (BOD <sub>5</sub> )	mg/L	30	45	--	14.0
	lbs/day	5.3	8.0	--	0.17
	% removal	85%	--	--	88.3%
Total Suspended Solids (TSS)	mg/L	30	45	--	10.0
	lbs/day	5.3	8.0	--	0.12
	% removal	85%	--	--	92.6%
<i>E. coli</i> , April - October	cfu/ 100 mL	126	252	--	-- <sup>(3)</sup>
<i>E. coli</i> , November - March	cfu/ 100 mL	630	1,260	--	14,000
pH	s.u.	6.5 – 9.0			6.7-7.0
Total Residual Chlorine	mg/L	0.011	--	0.019	-- <sup>(4)</sup>
Total Ammonia, as N	mg/L	2.0	--	2.9	14.0*
Nitrate + Nitrite, as N	mg/L	--	--	10	0.04*
Oil and Grease	mg/L	--	--	10	5
Kjeldahl Nitrogen, Total, as N	mg/L	quarterly monitoring required			17.6
Total Nitrogen, as N <sup>(5)</sup>	mg/L	quarterly monitoring required			17.64
	lbs/day				0.16
Total Phosphorus, as P	mg/L	quarterly monitoring required			3.67
	lbs/day				0.033
Flow Rate	mgd	monitoring required			0.0014*
<sup>(1)</sup> See Definition section at the end of the MPDES permit for explanation of terms <sup>(2)</sup> Only one discharge was reported. Sample values marked with an asterisk (*) indicate the maximum value of two samples taken during the discharge period. For all other samples, the sample size is one (1) <sup>(3)</sup> No discharge between the months of April and October <sup>(4)</sup> Winifred does not currently use chlorine for disinfection <sup>(5)</sup> Calculated as the sum of Nitrate + Nitrite (as N) and Total Kjeldahl Nitrogen (as N) concentrations					

### C. Compliance History

Winifred has a history of violations due to improper maintenance and lack of funding for upgrades. As previously mentioned, the single-cell lagoon has been accumulating sludge since it's construction 57 years ago, which has reduced the facility's ability to provide adequate treatment. During Winifred's one reported discharge for the POR, effluent limit exceedances for *E. coli* and total ammonia were noted. Winifred will likely continue to exceed the effluent limits for *E. coli* due to lack of a proper disinfection system.

The permittee is currently operating under an Administrative Order on Consent (effective until May 2019) to address violations including exceedances of permit effluent limits and DMR violations. For the POR, the facility was required to report to DEQ annually on progress made toward obtaining funding for Phase 2 improvements, as well as meeting effluent limits set by the 2012-permit.

The facility had two compliance evaluation inspections for the POR, in February 2015 and March of 2017. During the 2015 and 2017 inspections, several violations were noted including a lack of influent samples being collected as required, unavailable maintenance records, and lack of proper operation and maintenance of the lagoon. Responses were submitted to DEQ addressing these violations.

### III. Proposed Technology-Based Effluent Limits (TBELs)

#### A. Applicable Guidelines

Technology-based effluent limitations (TBELs) represent the minimum treatment requirements implemented in MPDES permits. 40 CFR 133 defines minimum treatment requirements for secondary treatment or equivalent for publicly owned treatment works (POTWs) as measured by pH, BOD<sub>5</sub>, TSS, and percent removal of BOD<sub>5</sub> and TSS. In the 2012-issued permit, Winifred was given interim effluent limits set at Alternative State Requirements (ASR) for TSS and National Secondary Standards (NSS) for BOD<sub>5</sub> with the expectation that the facility would be able to meet NSS standards for both by 2017.

Waste stabilization ponds are eligible for treatment equivalent to secondary standards (TES) if the BOD<sub>5</sub> and TSS effluent concentrations, through proper operation and maintenance of the treatment works, consistently exceed the minimum level of effluent quality requirements set for secondary treatment standards. However, recent inspections have shown Winifred is in violation of proper operation and maintenance of the facility. The most recent data also indicates effluent concentrations below the final limits for TSS and BOD<sub>5</sub> during the last discharge. Therefore, Winifred will be held to National Secondary Standards in this permit.

#### B. Mass-Based Limit Calculations

Effluent limits must be expressed in terms of mass and are identified as load (lbs/day) when suitable. Exceptions include parameters that cannot be appropriately expressed in mass, such as pH and temperature. In the case of Winifred WWTF, the design flow is unknown. The mass limits below are based on a design flow established in the 2012-permit, which was calculated based on a presumed wastewater flow of 102 gallons per capita per day from a population of 208 people. The following equations were used to calculate the BOD<sub>5</sub> and TSS mass-based load allocations using the TBEL concentrations associated with the national secondary treatment standards, the design flow of 0.0212 mgd, and a conversion factor:

<b>BOD<sub>5</sub>:</b>	30-day	Load = 0.0212 mgd x 30 mg/L x 8.34 = 5.3 lbs/day
	7-day	Load = 0.0212 mgd x 45 mg/L x 8.34 = 8.0 lbs/day

<b>TSS:</b>	30-day	Load = 0.0212 mgd x 30 mg/L x 8.34 = 5.3 lbs/day
	7-day	Load = 0.0212 mgd x 45 mg/L x 8.34 = 8.0 lbs/day

Load limits for BOD<sub>5</sub> and TSS will apply to the effluent and will be maintained at the more stringent of the nondegradation load allocations or mass-based loading limits, as discussed next.

#### C. Nondegradation Load Allocations

Winifred is an existing source and therefore is not a new or increased discharge. Since the design flow of the facility is unknown, previous permits have differed on which design flow was used in mass-based calculations. This permit uses the 2012-established design flow of 0.0212 mgd seeing

as it is believed to be the most indicative of the actual design flow of the facility. Assuming the use of a consistent design flow, the nondegradation threshold values for BOD<sub>5</sub> and TSS using National Secondary Standards would be the values calculated in the 2012-permit of 5.3 lbs/day.

Winifred did not exceed the allocated load limits during the period of record. The mass-based loading limits and nondegradation limits are the same. Winifred will continue to be held to the average monthly load limit of 5.3 lbs/day for BOD<sub>5</sub> and TSS.

**D. Final Technology-Based Effluent Limitations**

This permit will retain TBELs based on National Secondary Standards for BOD<sub>5</sub> and TSS as shown in Table 2. Technology-based limits for pH require levels between 6.0-9.0 standard units.

<b>Table 2. Technology-Based Effluent Limits for Outfall 001</b>			
Parameter	Units	Effluent Limits	
		Average Monthly	Average Weekly
5-Day Biochemical Oxygen Demand (BOD <sub>5</sub> )	mg/L	30	45
	% Removal	85%	-
	lb/day	5.3	8.0
Total Suspended Solids (TSS)	mg/L	30	45
	% Removal	85%	-
	lb/day	5.3	8.0
pH	s.u.	6.0 – 9.0 (instantaneous)	

**IV. Water Quality-Based Effluent Limitations**

**A. Applicable Guidelines**

The Montana Water Quality Act states that a permit may only be issued if DEQ finds that it will not result in pollution of state waters. MPDES permits shall include limitations on all pollutants which will cause, or have reasonable potential to cause, an excursion of any numeric or narrative water quality standard. Water quality-based effluent limits (WQBELs) are designed to protect these standards and are required when TBELs are not adequately protective. The purpose of this section is to provide a basis and rationale for establishing effluent limits that will protect designated uses of the receiving water based on Montana water quality standards and water use classifications.

**B. Receiving Water**

The Winifred WWTF discharges to an approximately 200-yard-long conveyance that leads to Dog Creek, which flows some 41 river miles North to the Missouri River. Dog Creek and its tributaries are classified as C-3 according to Montana Water Use Classifications. Waters classified C-3 are to be maintained suitable for bathing, swimming, and recreation, and growth and propagation of non-salmonid fishes and associated aquatic life, waterfowl and furbearers. The quality of these waters is naturally marginal for drinking, culinary, and food processing purposes, agriculture, and industrial water supply. Dog Creek near Winifred has not been assessed for impairment, and a total maximum daily load (TMDL) has not been prepared for this segment.

**C. Mixing Zone**

A mixing zone is an area where the effluent mixes with the receiving water and certain water quality standards may be exceeded. The conveyance to Dog Creek is effluent dominated and the 7Q10 is zero; no dilution is available for mixing and compliance must be met at end of pipe.

**D. Applicable Water Quality Standards & Pollutants of Concern**

The discharge from Winifred must comply with general prohibitions (narrative standards) of ARM 17.30.637(1) which require that state waters, including mixing zones, must be free from substances which will:

- (a) settle to form objectionable sludge deposits or emulsions beneath the surface of the water or upon adjoining shorelines;
- (b) create floating debris, scum, a visible oil film (or be present in concentrations at or in excess of 10 milligrams per liter), or globules of grease or other floating materials;
- (c) produce odors, colors or other conditions as to which create a nuisance or render undesirable tastes to fish flesh or make fish inedible;
- (d) create concentrations or combinations of materials which are toxic or harmful to human, animal, plant or aquatic life; and
- (e) create conditions which produce undesirable aquatic life.

The need for additional WQBELs is based on a reasonable potential (RP) analysis for pollutants to determine if numeric or narrative water quality standards may be exceeded. Pollutants present in treated effluent from municipal wastewater treatment facilities, and those specific to Winifred, are summarized in Table 3.

<b>Table 3. Identification of Pollutants of Concern</b>	
<b>Parameter</b>	<b>Basis for Pollutant of Concern</b>
5-day Biochemical Oxygen Demand (BOD <sub>5</sub> )	TBEL, previous permit
Total Suspended Solids (TSS)	TBEL, previous permit
pH	TBEL, previous permit
<i>Escherichia coli</i> ( <i>E. coli</i> ) Bacteria	Known present, previous permit
Oil and Grease	Known present, previous permit
Total Ammonia, as N	Known present, previous permit
Nitrate + Nitrite (N+N) as N	Known present, previous permit
Total Nitrogen (TN), as N	Known present
Total Phosphorus (TP), as P	Known present

**E. Reasonable Potential Analysis**

The RP analysis predicts the impact of the discharge on the receiving water under design conditions. WQBELs are developed for each parameter that demonstrate RP to cause an exceedance of a water quality standard. DEQ uses a statistical approach outlined in Chapter 3 of EPA’s *Technical Support Document for Water Quality-based Toxics Control* (EPA’s TSD Manual) to determine RP for individual pollutants. This process is summarized in Table 4. Ammonia analysis has been excluded due to lack of sufficient data as explained in more depth below.

<b>Table 4. Reasonable Potential Analysis for Winifred WWTF</b>								
1. The critical effluent concentration is determined.					2. The critical effluent concentration is compared to the water quality standard.			
	CV	Sample Size	TSD Multiplier	Maximum Effluent Concentration	=	Critical Effluent Concentration	Water Quality Standard	RP?
Nitrate + Nitrite	0.6	1	6.2	0.04 mg/L		0.2 mg/L	< 10.0 mg/L	no
Total Nitrogen	0.6	1	6.2	17.6 mg/L		109 mg/L	> 1.30 mg/L	yes
Total Phosphorus	0.6	1	6.2	0.03 mg/L		0.2 mg/L	> 0.15 mg/L	yes
Oil and Grease	0.6	1	6.2	5.0 mg/L		31 mg/L	> 10.0 mg/L	yes

**F. Proposed WQBEL Limits**

WQBELs are expressed as maximum daily limit and average monthly limit. DEQ uses a statistical approach outlined in Chapter 5 of EPA’s TSD Manual to develop these limits for each pollutant. This approach involves three major steps for establishing standards based on acute and chronic criteria as summarized in Table 5.

<b>Table 5. WQBEL Development for Pollutants Demonstrating Reasonable Potential</b>						
1. The TSD 5-2 WLA multiplier is determined.		2. The long-term average (LTA) is established.			3. MDL for acute criteria and AML for chronic criteria are determined.	
	CV	WLA Multiplier	WLA	Protective LTA	MDL or AML Multiplier	WQBEL
Total Nitrogen	0.6	0.64	1.30 mg/L	0.84 mg/L	1.55	AML = 1.3 mg/L
Total Phosphorus	0.6	0.64	0.15 mg/L	0.10 mg/L	1.55	AML = 0.15 mg/L
Nitrate + Nitrite	AML and MDL are set equal to the human health standard for N+N					AML, MDL = 10.0 mg/L

The waste load allocation (WLA) is the loading concentration of a pollutant that the point source can discharge while still assuring applicable water quality standards are attained in the receiving water. Because dilution is not available for Winifred, each parameter’s WLA is set equal to the water quality standard. The long-term average (LTA) accounts for effluent variability and the maximum daily limit (MDL) and average monthly limit (AML) are the final WQBELs. Below is a summary of each parameter’s reasonable potential analysis and WQBEL development:

*Conventional Pollutants:*

**BOD<sub>5</sub>, TSS, and pH** – The facility provides a significant reduction in biological material and solids through BOD<sub>5</sub>, TSS, and pH TBELs (Section III). No additional WQBELs will be required for these parameters.

**Oil and Grease (O&G)** – The 2012-permit required semiannual monitoring for this parameter. Visual monitoring will be required for periods of discharge. If visual monitoring indicates the presence of oil and grease, samples must be submitted for analysis and discharge must cease if the concentration is found to be greater than the standard of 10 mg/L.

**Escherichia coli (E. coli) Bacteria Limits** – The applicable standard for *E. coli* is:

- 1) April 1 through October 31, of each year, the geometric mean number of the microbial species *E. coli* must not exceed 126 organisms per 100 milliliters (org/100 mL), nor are 10% of the total samples during any 30-day period to exceed 252 org/100 mL; and

- 2) November 1 through March 31, of each year, the mean number of *E. coli* organisms should not exceed 630 org/100 mL and 10% of the samples during any 30-day period may not exceed 1,260 org/100 mL

To comply with the narrative requirements of ARM 17.30.637(1)(d), prohibiting conditions which are harmful to humans, the permit will contain effluent limits based on the state water quality standard for *Escherichia coli*.

*Non-conventional Pollutants:*

**Total Residual Chlorine** – Although Winifred is not currently using any means of disinfection, effluent disinfection will be required to meet the *E. coli* bacteria limits. TRC limits will be applied in case chlorination is used for disinfection in the future. DEQ-7 lists the chronic standard (average monthly) for TRC as 0.011 mg/L and the acute water quality standard (maximum daily) as 0.019 mg/L. Daily monitoring will be required if chlorination is used as a method of disinfection.

**Total Ammonia, as N** – Ammonia limits are developed based on standards that account for a combination of pH and temperature of the receiving stream, the presence or absence of salmonid fishes, and the presence or absence of fish in early life stages. 2012-permit limits were calculated using estimated pH and temperature data derived from other lagoon data in the area.

Due to the minimal reported discharges for the POR, effluent and ambient data of the receiving conveyance and Dog Creek is limited and not sufficient for calculating ammonia limits. Monthly monitoring for ammonia will be required at the end of the conveyance before it meets and flows into Dog Creek. Semi-annual monitoring for ambient pH and temperature in Dog Creek upstream of the conveyance will also be required in order to assess limits for the next permit cycle.

**Nitrate plus Nitrite, as N (NO<sub>3</sub>/NO<sub>2</sub>)** – The human health water quality standard for NO<sub>3</sub>/NO<sub>2</sub> in waters classified C-3 is 10 mg/L. Footnote 16 of DEQ-7 states that surface or groundwater concentrations may not exceed these values. The effluent limit established in the 2012-permit will remain at the human health water quality standard of 10 mg/L (MDL and AML).

**Nutrients: Total Nitrogen (as N) and Total Phosphorus (as P)** – Previous effluent limits for total nitrogen (TN) and total phosphorus (TP) were not developed in the 2012-issued permit, but monitoring was required. DEQ has since adopted Base Numeric Nutrient Standards found in Circular DEQ-12A. Dog Creek is a wadable stream belonging to the Northwest Great Plains ecoregion, which has the following seasonal numeric nutrient standards:

TN: 1.3 mg/L            TP: 0.15 mg/L

Because Winifred discharges infrequently and is capable of not discharging during the months that TN and TP standards apply, DEQ prohibits discharge from July 1<sup>st</sup> to September 30<sup>th</sup> each year to prevent pollution of state waters from nutrients.

*Toxic Pollutants:*

No toxic pollutants are known for the effluent from Winifred WWTF. No data for metals were submitted with the application form, nor have any industrial dischargers to the facility been reported.



**V. Final Effluent Limits**

The final effluent limits in Table 6 will be applied to the discharge at Outfall 001 beginning on the permit effective date and lasting through the term of the permit.

<b>Table 6. Outfall 001 Final Effluent Limits <sup>(1)</sup></b>				
Parameter	Units	Maximum Daily Limit	Average Weekly Limit	Average Monthly Limit
5-Day Biochemical Oxygen Demand (BOD <sub>5</sub> )	mg/L	--	45	30
	lbs/day	--	8.0	5.3
	% Removal	--	--	85%
Total Suspended Solids (TSS)	mg/L	--	45	30
	lbs/day	--	8.0	5.3
	% Removal	--	--	85%
pH	s.u.	6.0 - 9.0		
Oil and Grease	mg/L	10	--	--
<i>E. coli</i> Bacteria – summer <sup>(2)</sup>	org/100 mL	--	252	126
<i>E. coli</i> Bacteria – winter <sup>(2)</sup>	org/100 mL	--	1,260	630
Total Residual Chlorine (TRC) <sup>(3)</sup>	mg/L	0.019	--	0.011
Nitrate + Nitrite, as N	mg/L	10	--	10
<sup>(1)</sup> See Definitions section at the end of the MPDES permit for explanation of terms <sup>(2)</sup> <i>Escherichia coli</i> bacteria - summer is April 1 through October 31, winter is November 1 through March 31 <sup>(3)</sup> The permittee will be in compliance if the TRC does not exceed the minimum detection level (ML) of 0.1 mg/L. The TRC limitations apply if chlorine is used for effluent disinfection				

There shall be no discharge from the Winifred WWTF from July 1<sup>st</sup> through September 30<sup>th</sup>. There shall also be no discharge of floating solid or visible foam other than in trace amounts. There shall be no discharge which causes visible oil sheen in the receiving water.

**VI. Monitoring and Reporting Requirements**

**A. Outfall 001 and Influent**

Monitoring requirements are based on the type of treatment facility and the method of discharge. The samples collected and analyzed must be representative of the volume and nature of the facility’s discharge. The Required Reporting Value (RRV) is DEQ’s best determination of a level of analysis that can be achieved using EPA-approved methods or methods approved by DEQ.

Monitoring will start with the effective date of the permit and last for the duration of the permit cycle. All analytical procedures must comply with the specifications of 40 CFR Part 136. Winifred must submit NetDMR results for each month by the 28<sup>th</sup> of the following month. Winifred will monitor the effluent quality for ammonia at the end of the discharge pipe, as well as and at the end of the conveyance before it meets and flows into Dog Creek. All other effluent monitoring must be conducted at the end of the effluent discharge pipe. Influent monitoring is needed to calculate percent removal for BOD<sub>5</sub> and TSS and must be collected from the raw sewage monitoring manhole.

The monitored parameters, their respective monitoring locations, and frequency requirements are presented in Table 7. Monitoring is required during periods of discharge. If no discharge occurs during the reported period, “no discharge” shall be reported on the NetDMR.

<b>Table 7. Monitoring Requirements for Outfall 001 and Influent</b>					
Parameter	Units	Sample Location	Type <sup>(1)</sup>	Minimum Frequency <sup>(2)</sup>	RRV <sup>(3)</sup>
Discharge Flow Rate	mgd	Effluent	Instantaneous	1/Week	--
Duration of Discharge	days	Effluent	Calculated	1/Day	--
5-Day Biochemical Oxygen Demand (BOD <sub>5</sub> ) <sup>(4)</sup>	mg/L	Influent	Composite	1/Month	2
	mg/L	Effluent	Grab	1/Month	2
	lbs/day	Effluent	Calculated	1/Month	--
	% Removal	Effluent	Calculated	1/Month	--
Total Suspended Solids (TSS) <sup>(4)</sup>	mg/L	Influent	Composite	1/Month	10
	mg/L	Effluent	Grab	1/Month	10
	lbs/day	Effluent	Calculated	1/Month	--
	% Removal	Effluent	Calculated	1/Month	--
pH	s.u.	Effluent	Instantaneous	1/Week	0.1
Temperature	°C	Effluent	Instantaneous	1/Week	0.1
Oil and Grease	Yes / No	Effluent	Visual <sup>(5)</sup>	1/Day	--
	mg/L	Effluent	Grab	-- <sup>(5)</sup>	1.0
<i>E. coli</i>	org/100 mL	Effluent	Grab	1/Month	1/100mL
Total Residual Chlorine (TRC)	mg/L	Effluent	Grab	1/Day <sup>(6)</sup>	0.1
Total Ammonia, as N	mg/L	End of Conveyance	Grab	1/Month	0.07
Nitrate + Nitrite, as N	mg/L	Effluent	Grab	1/Month	0.02
<p>(1) See Definition section at end of permit for explanation of terms</p> <p>(2) <b>Monitoring is required only for any calendar period where there is discharge</b></p> <p>(3) Required reporting value. Analysis must achieve these, or lower, RRVs</p> <p>(4) Methods for calculating mass load (lb/day) and % removal are provided in the permit.</p> <p>(5) If visual monitoring indicates the presence of oil and grease, a grab sample must be submitted for analysis and discharge must cease if the concentration is found to be &gt; 10 mg/L</p> <p>(6) The permittee is only required to sample for TRC if chlorine is used as a disinfectant in the treatment process. If chlorine is not used, write “NA” on DMR for this parameter</p>					

### B. Ambient Monitoring

Ambient monitoring for pH and temperature will be required in this permit. Monitoring must take place at a consistent location in Dog Creek upstream of the conveyance with the sample type, frequency, and RRVs as identified in Table 8 below. Values shall be reported on the facility’s DMRs.

<b>Table 8. Ambient Monitoring and Reporting Requirements</b>				
Parameter	Units	Type <sup>(1)</sup>	Minimum Frequency	RRV <sup>(2)</sup>
pH	s.u.	Instantaneous	2/Year <sup>(3)</sup>	0.1
Temperature	°C	Instantaneous	2/Year <sup>(3)</sup>	0.1
<sup>(1)</sup> See Definition section at end of permit for explanation of terms <sup>(2)</sup> Required reporting value. Analysis must achieve these, or lower, RRVs <sup>(3)</sup> Samples must be taken in the first half and second half of the year, at least 6 months apart regardless of whether a discharge occurs.				

**VII. Special Conditions**

**A. Lagoon Operation and Maintenance Requirements**

A permittee shall at all times properly 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. A wastewater treatment system must have an Operation and Maintenance (O&M) manual developed at the time of construction and/or upgrade. Each permitted facility is required to:

1. Maintain an up-to-date O&M manual;
2. Follow the procedures in the O&M manual;
3. Conduct inspections at least monthly to ensure the O&M procedures are being followed and are working; and
4. Maintain records of the routine inspections and any follow-up.

**B. Sewage Sludge Requirements**

The use or disposal of sewage sludge must be in conformance with 40 CFR Part 503.

**VIII. Public Participation**

**1. Public Notice**

DEQ issued a public notice stating that a tentative decision has been made to issue an MPDES permit to the Town of Winifred and that a draft permit, fact sheet, and environmental assessment (EA) have been prepared. Details are below:

- Public Notice No. MT-19-01 dated January 14, 2019
- Public comments are invited any time prior to the close of business February 14, 2019
- Comments may be directed to:
 

Department of Environmental Quality Water Protection Bureau PO Box 200901 Helena, MT 59620	or	DEQWPBPublicComments@mt.gov
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- All comments received or postmarked prior to the close of the public comment period will be considered in the formulation of the final permit.
- DEQ will respond to all substantive comments and issue a final decision within sixty days of the close of the public comment period or as soon as possible thereafter.

All persons, including the applicant, who believe any condition of the draft permit is inappropriate shall raise all reasonably ascertainable issues and submit all reasonably available arguments supporting their position by the close of the public comment period.

## **2. Notification of Interested Parties**

Copies of the public notice were mailed to the discharger, state and federal agencies, and persons who have expressed an interest in being notified of permit actions. A copy of the distribution list is available in the administrative record for this permit.

In addition to mailing the public notice, a copy of the notice and applicable draft permit, fact sheet and EA were posted on DEQ's website for 30 days. Any person interested in being placed on the mailing list for information regarding the MPDES permit should contact DEQ, reference this facility, and provide a name, address, and email address.

## **3. Public Hearing**

During the public comment period provided by the notice, DEQ will accept requests for a public hearing. A request for a public hearing must be in writing and must state the nature of the issue proposed to be raised in the hearing.

## **4. Permit Appeal**

After the close of the public comment period DEQ will issue a final permit decision, which is a final decision to issue, deny, modify, revoke and reissue, or terminate a permit. A permit decision is effective 30 days after the date of issuance unless a later date is specified in the decision, a stay is granted, or the applicant files an appeal.

Winifred may file an appeal within 30 days of DEQ's action to the following address:

Secretary, Board of Environmental Review  
Department of Environmental Quality  
1520 East Sixth Avenue  
PO Box 200901  
Helena, Montana 59620-0901

## **5. Additional Information**

Requests for additional information or questions regarding this permit should be directed to the Water Protection Bureau at 406-444-5546

## **XI. Information Sources**

Administrative Rules of Montana Title 17 Chapter 30 – Water Quality

- Subchapter 2 – *Water Quality Permit and Application Fees*
- Subchapter 5 – *Mixing Zones in Surface and Ground Water*
- Subchapter 6 – *Montana Surface Water Quality Standards and Procedures*
- Subchapter 7 – *Nondegradation of Water Quality*
- Subchapter 12 – *Montana Pollutant Discharge Elimination (MPDES) Standards*
- Subchapter 13 – *Montana Pollutant Discharge Elimination (MPDES) Permits*

CWAIC: Clean Water Act Information Center, Department of Environmental Quality. 2018.  
Accessed August 2018.

Federal Water Pollution Control Act (Clean Water Act), 33 U.S.C. §§ 1251-1387, October 18, 1972, as amended 1973-1983, 1987, 1988, 1990-1992, 1994, 1995 and 1996.

Integrated 303(d) Water Quality Report for Montana (2016 and 2014).

Montana Code Annotated (MCA), Title 75-5-101, *et seq.*, “Montana Water Quality Act.”

Montana DEQ. 2014. *Department Circular DEQ-12A, Montana Base Numeric Nutrient Standards.*

Montana DEQ. 2017. *Compliance Evaluation Inspection Report, Town of Winifred WWTF.*

Montana DEQ. 2017. *Department Circular DEQ-7, Montana Numeric Water Quality Standards.*

Montana DEQ. 2017. *Department Circular DEQ-12B, Nutrient Standards Variances.*

Montana DEQ. Montana Pollutant Discharge Elimination System (MPDES) Permit Number MT0031453

- Administrative Record
- Renewal Application Forms DEQ-1 and EPA Form 2A, January 2017

US Code of Federal Regulations, 40 CFR Parts 122-125, 130-133, & 136.