Permit No.: MTX000116

# MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# <u>AUTHORIZATION TO DISCHARGE UNDER THE</u> MONTANA GROUND WATER POLLUTION CONTROL SYSTEM

In compliance with Montana Water Quality Act, Title 75, Chapter 5, Montana Code Annotated (MCA) and the Administrative Rules of Montana (ARM) 17.30 Subchapter 5, Subchapter 7, and Subchapter 10 *et seq.*,

# City of Belgrade

is authorized to discharge from Belgrade Wastewater Treatment Plant; Section 36, Township 01 North, Range 04 East; Gallatin County; to receiving waters, Class I ground water,

in accordance with discharge point(s), effluent limitations, monitoring requirements and other conditions set forth herein. Authorization for discharge is limited to those outfalls specifically listed in the permit. The numeric effluent limits, water quality standards, and special conditions specified herein support the protection of the affected receiving water.

This permit shall become effective: October 01, 2018.

This permit and the authorization to discharge shall expire at midnight, September 30, 2023.

FOR THE MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Jón Kenning, Chief Water Protection Bureau

Issue Date: <u>August 21, 2018</u>

# TABLE OF CONTENTS

I.	EF	FLUENT LIMITS, MONITORING REQUIREMENTS & OTHER CONDITIONS	3
	A.	DESCRIPTION OF DISCHARGE POINTS AND MIXING ZONES	3
	В.	EFFLUENT LIMITATIONS	4
	C.	INFLUENT MONITORING AND REPORTING REQUIREMENTS	4
	D.	EFFLUENT MONITORING AND REPORTING REQUIREMENTS	
	E.	SPECIAL CONDITIONS – GROUND WATER MONITORING AND REPORTING REQUIREMENTS	8
	F.	SPECIAL CONDITIONS – LAND APPLICATION	
	G.	SPECIAL CONDITIONS – OTHER	10
	H.	COMPLIANCE SCHEDULE	
II.	M	ONITORING, RECORDING AND REPORTING REQUIREMENTS	12
	A.	REPRESENTATIVE SAMPLING	12
	B.	MONITORING PROCEDURES	
	C.	PENALTIES FOR TAMPERING	
	D.	REPORTING	12
	E.	COMPLIANCE SCHEDULES	
	F.	ADDITIONAL MONITORING BY THE PERMITTEE	
	G.	RECORDS CONTENTS	
	H.	RETENTION OF RECORDS	
	I.	TWENTY-FOUR HOUR NOTICE OF NONCOMPLIANCE REPORTING.	
	J.	OTHER NONCOMPLIANCE REPORTING	
	K.	INSPECTION AND ENTRY	
III.	CC	OMPLIANCE RESPONSIBILITIES	15
	Α.	DUTY TO COMPLY	
	В.	PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS.	
	C.	NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE	
	D.	DUTY TO MITIGATE	
	E.	PROPER OPERATION AND MAINTENANCE	
	F.	REMOVED SUBSTANCES	
		BYPASS OF TREATMENT FACILITIES	
	G.		
IV.	GE	NERAL REQUIREMENTS	
	A.	PLANNED CHANGES	
	В.	ANTICIPATED NONCOMPLIANCE	
	C.	PERMIT ACTIONS	17
	D.	DUTY TO REAPPLY	
	E.	DUTY TO PROVIDE INFORMATION	
	F.	OTHER INFORMATION	
	G.	SIGNATORY REQUIREMENTS	
	Н.	PENALTIES FOR FALSIFICATION OF REPORTS	19
	I.	AVAILABILITY OF REPORTS	19
	J.	OIL AND HAZARDOUS SUBSTANCE LIABILITY	19
	K.	PROPERTY OR WATER RIGHTS	19
	L.	SEVERABILITY	20
	M.	Transfers	20
	N.	FEES	20
	O.	REOPENER PROVISIONS	
V.	DE	FINITIONS	21
-			

Page 3 of 24

Permit No.: MTX000116

# I. EFFLUENT LIMITS, MONITORING REQUIREMENTS & OTHER CONDITIONS

# A. <u>Description of Discharge Points and Mixing Zones</u>

The authorization to discharge provided under this permit is limited to the outfalls specially designated below as the discharge location. Discharges at any location not authorized under a MGWPCS permit is a violation of the Montana Water Quality Act and may subject the person(s) responsible for such discharge to penalties under the Act. Knowingly discharging from an unauthorized location or failing to report an unauthorized discharge within a reasonable time from first learning of an unauthorized discharge could subject such person to criminal penalties as provided under Section 75-5-632 of the Montana Water Quality Act.

Outfall

**Description** 

001-A

**Location:** Infiltration/Percolation Beds: 45.795039° North Latitude and 111.162285° West Longitude; E ½ of Section 36, Township 01 North, Range 04 East; Gallatin County.

**Mixing Zone:** A Department modified (750 foot) mixing zone bearing N45°W is authorized

**Treatment Works:** Partially mixed mechanically-aerated lagoon system.

002-B

**Location:** Infiltration/Percolation Beds: 45.794992° North Latitude and 111.167079° West Longitude; E ½ of Section 36, Township 01 North, Range 04 East; Gallatin County.

**Mixing Zone:** A Department modified (750 foot) mixing zone bearing N45°W is authorized

**Treatment Works:** Partially mixed mechanically-aerated lagoon system.

003-C

**Location:** Infiltration/Percolation Beds: 45.785813° North Latitude and 111.149856° West Longitude; NE of Section 06, Township 01 South, Range 05 East; Gallatin County.

**Mixing Zone:** A Department modified (750 foot) mixing zone bearing N45°W is authorized

**Treatment Works:** Partially mixed mechanically-aerated lagoon system.

Page 4 of 24

Permit No.: MTX000116

# B. Effluent Limitations

Upon the effective date of the permit and lasting until the term of the permit; the quality of effluent discharged must, as a minimum, meet the limitations set forth in Table 1.

Table 1: Eff	Γable 1: Effluent Limitations					
Outfall	Parameter	Units	Monthly Average			
Outfall 001-A	Nitrogen, Total (as N)	lbs/day	71			
Outfall 002-B	Nitrogen, Total (as N)	lbs/day	72			
Outfall 003-C	Nitrogen, Total (as N)	lbs/day	84			

# C. <u>Influent Monitoring and Reporting Requirements</u>

- 1. Samples representative of influent quality must be collected from:
  - INF-004: In-flows near the weir box.
- 2. Influent samples must be representative of the nature of the monitored inflows.
- 3. Influent sampling requirements are listed in Table 2. The required sample type, sampling frequency, reporting requirements, and reporting frequency is listed in Table 2.
- 4. Parameter analytical methods must be in accordance with the Code of Federal Regulations, Title 40, Part 136, unless specified or otherwise approved by the Department.
- 5. Influent flow rate measurements must be collected from:
  - FM-004 (FM-INF): flow meter in open channel near weir box.
- 6. Influent flow rate measurements must be representative of the volume of the monitored in-flows.
- 7. Influent flow monitoring and reporting requirements are listed in Table 2.

Page 5 of 24

Permit No.: MTX000116

<b>Table 2: Influent Monitor</b>	le 2: Influent Monitoring and Reporting Requirements					
Analyte/Measurement	Monitor Location	Units	Sample Type	Minimum Sample Frequency	Reporting Requirements	Report Freq
	Inflow Monitoring at Weir Box					
Biochemical Oxygen Demand (BOD <sub>5</sub> )	INF-004	mg/L	Composite	1/Month	Monthly Average	Monthly
[5] A G (5)	EM 004	gal/month <sup>(8)</sup>	Continuous	Continuous	Monthly Average	Monthly
Flow rate, Inflow <sup>(5)</sup>	FM-004	gal/day <sup>(8)</sup>	Calculate		Monthly Average	Monthly
Nitrogen, Nitrite+Nitrate (as N)	INF-004	mg/L	Composite	1/Month	Monthly Average	Monthly
Nitrogen, Total Ammonia (as N)	INF-004	mg/L	Composite	1/Month	Monthly Average	Monthly
Nitrogen, Total Kjeldahl (TKN)(as N)	INF-004	mg/L	Composite	1/Month	Monthly Average	Monthly
D + 1 ( > D(2)(7)(8)	INF-004	mg/L <sup>(8)</sup>	Calculate	-	Monthly Average	Monthly
Nitrogen, Total (as N) <sup>(2)(7)(8)</sup>	INF-004	lbs/day <sup>(8)</sup>	Calculate	1/Month	Monthly Average	Monthly
Phosphorus, Total (as P)	INF-004	mg/L	Composite	1/Month	Monthly Average	Monthly
Total Suspended Solids (TSS)	INF-004	mg/L	Composite	1/Month	Monthly Average	Monthly

#### Footnotes:

Compositing Period: 6 to 24 hours (or as otherwise approved by DEQ).

- (2) Total Nitrogen is the sum of Nitrate + Nitrite and Total Kjeldahl Nitrogen.
- (5) Requires recording device or totalizing meter, must be capable of recording monthly influent volume.
- [7] Load calculation: lbs/day = concentration (mg/L) x flow (gal/day) x [8.34 x  $10^{-6}$ ].
- (8) Monthly Average Load calculation (lbs/day) = Must use the totalized influent flow that occurred during the monthly reporting period (gal/month). The totalized monthly flows must be converted into a daily rate (gal/day) in use of the total number of calendar days that occurred during the reporting period. Must use the average concentration of all daily samples collected during the monthly reporting period (mg/L).

Page 6 of 24

Permit No.: MTX000116

# D. <u>Effluent Monitoring and Reporting Requirements</u>

1. Samples representative of effluent quality must be collected from:

• EFF-001: Control building sample port.

A sample collected from this location is representative of treated wastewater quality being disposed of at all outfalls and the irrigation system.

- 2. Effluent samples must be representative of the nature of the monitored discharge.
- 3. Effluent sampling requirements are listed in Table 3. The required sample type, sampling frequency, reporting requirements, and reporting frequency is listed in Table 3.
- 4. Parameter analytical methods must be in accordance with the Code of Federal Regulations, Title 40, Part 136, unless specified or otherwise approved by the Department.
- 5. Submittal of electronic discharge monitoring reports (DMRs) are required regardless of the operational status of the facility. If no discharge occurs during an individual monitoring period, it shall be stated within the respective outfall DMR that no discharge or overflow occurred.
- 6. The permittee must monitor and record effluent flows individually for each outfall and the irrigation system. This may be completed by either of the following methods:
  - Install separate flow meters and recording devices on each of the outfalls and the irrigation system; or,
  - Develop a site-specific standard operating procedures plan (in use of best management practices) to implement the segregation, recording, and reporting of daily flows to each location using available on-site equipment. Daily monitoring records will need to be maintained on-site that document the duration of discharge and the respective flow rates that occurred for each separate outfall and the irrigation system.
- 7. Effluent flow rate measurements must be representative of the volume of the monitored discharge.
- 8. Effluent flow monitoring and reporting requirements are listed in Table 3.

Table 3: Effluent Monitoring and Reporting Requirements	ing and	Reportin	ng Requir	ements		
Analyte/Measurement	Monitor	Units	Sample Type	Minimum Sample Frequency	Reporting Requirements	Report Freq
Outfa	Outfall 001-A, C	Outfall 002-B, and Outfall 003-C	B, and Outf	all 003-C		
Biochemical Oxygen Demand (BOD <sub>5</sub> )	EFF-001	mg/L	Composite	1/Month	Monthly Average	Monthly
Chloride (as CI)	EFF-001	mg/L	Composite	1/Month	Monthly Average	Monthly
Nitrogen, Nitrite+Nitrate (as N)	EFF-001	mg/L	Composite	1/Month	Monthly Average	Monthly
Nitrogen, Total Ammonia (as N)	EFF-001	mg/L	Composite	1/Month	Monthly Average	Monthly
Nitrogen, Total Kjeldahl (TKN)(as N)	EFF-001	mg/L	Composite	1/Month	Monthly Average	Monthly
Nitrogen, Total (as N) <sup>(2)</sup>	EFF-001	mg/L <sup>(8)</sup>	Calculate	-	Monthly Average	Monthly
Phosphorus, Total (as P)	EFF-001	mg/L	Composite	1/Month	Monthly Average	Monthly
Total Suspended Solids (TSS)	EFF-001	mg/L	Composite	1/Month	Monthly Average	Monthly
		Outfall 001-A	1-A	1 - 1 Cay 2 2 2 2	CHE ALL MA	
Duration of Discharge <sup>(3)</sup>		days/ month	Continuous	Continuous	Total Number of Discharge Days	Monthly
Elements Defficer Discharge (5)	EM 001	gal/month <sup>(8)</sup>	Continuous	Continuous	Monthly Average	Monthly
riow fate, Elliuein Discharge	LINE-OOL	gal/day <sup>(8)</sup>	Calculate		Monthly Average	Monthly
Nitrogen, Total (as N) <sup>(7)(8)</sup>	EFF-001	lbs/day <sup>(8)</sup>	Calculate	1/Month	Monthly Average	Monthly
		Outfall 002-B	2-B			
Duration of Discharge <sup>(3)</sup>		days/ month	Continuous	Continuous	Total Number of Discharge Days	Monthly
Flournie Effluent Discharge (5)	FM-002	gal/month <sup>(8)</sup>	Continuous	Continuous	Monthly Average	Monthly
riowiate, Elliuciii Dischalge	700-W1	gal/day <sup>(8)</sup>	Calculate		Monthly Average	Monthly
Nitrogen, Total (as N) <sup>(7)(8)</sup>	EFF-001	1bs/day <sup>(8)</sup>	Calculate	1/Month	Monthly Average	Monthly
		Outfall 003-C	3-C			
Duration of Discharge <sup>(3)</sup>		days/ month	Continuous	Continuous	Total Number of Discharge Days	Monthly
Flow rate. Effluent Discharge (5)	FM-003	gal/month <sup>(8)</sup>	Continuous	Continuous	Monthly Average	Monthly
Towns, contain Discind By		gal/day <sup>(8)</sup>	Calculate		Monthly Average	Monthly
Nitrogen, Total (as N) <sup>(7)(8)</sup>	EFF-001	1bs/day <sup>(8)</sup>	Calculate	1/Month	Monthly Average	Monthly
		Land Application	ation			
Duration of Application <sup>(3)</sup>		days/ month	Continuous	Continuous	Total Number of Application Days	Monthly
Flow rate Efficient(5)	FM-005	gal/month(8)	Continuous	Continuous	Monthly Average	Monthly
TOWNERS, ELLINORE		gal/day <sup>(8)</sup>	Calculate		Monthly Average	Monthly
Nitrogen, Total (as N) <sup>(7)(8)</sup>	EFF-001	lbs/day <sup>(8)</sup>	Calculate	1/Month	Monthly Average	Monthly
Footnotes:						

Compositing Period: 6 to 24 hours (or as otherwise approved by DEQ).

Samples and measurements must be collected and reported when a discharge event occurs during the reporting period, even if that discharge is intermittent.

(2) Total Nitrogen is the sum of Nitrate + Nitrite and Total Kjeldahl Nitrogen.

(3) Total days during the monthly reporting period in which effluent flowed to this individual outfall.

(5) Requires recording device or totalizing meter, must be capable of recording monthly effluent volume.

- (7) Load calculation: lbs/day = concentration (mg/L) x flow (gal/day) x [8.34 x 10<sup>-6</sup>].

  (8) Monthly Average Load calculation (lbs/day) = Must use the totalized effluent flow that occurred during the monthly reporting period (gal/month) for each outfall. The totalized monthly flows must be converted into a daily rate (gal/day) in use of the total number of calendar days that occurred during the reporting period. Must use the average of all daily concentrations collected during the monthly reporting period (mg/L).

Page 8 of 24

Permit No.: MTX000116

# E. Special Conditions – Ground Water Monitoring and Reporting Requirements

 Ground Water Monitoring and Reporting is required for monitoring wells: MW-1A, MW-3A, MW-5A, MW-6A, MW-4B, MW-5B, MW-6B, MW-1C, MW-3C, and MW-6C. These wells must be individually sampled at the frequency and with the type of measurement respectively listed in Table 4. Samples must include, but not be limited to, the respective parameters listed in Table 4 for each listed monitoring well. The reporting requirements and reporting frequencies are listed in Table 4.

- 2. Ground Water Monitoring and Reporting is not required for monitoring wells: MW-2A, MW-4A, MW-2B, MW-3B, MW-2C, and MW-4C. These monitoring wells must be secured and maintained for potential future monitoring.
- 3. The permittee shall develop (or update) a procedure plan that will provide for the consistent identification, development, monitoring, sampling, recording, and reporting of the active monitoring wells. The permittee will need to maintain monitoring well development records on-site that document the proper development of the wells (representative sample). The plan, along with the well development records need to be maintained on-site at all times.
- 4. Parameter analytical methods must be in accordance with the Code of Federal Regulations, Title 40, Part 136, unless specified or otherwise approved by the Department.
- 5. The permittee shall document the methodology and equipment used to sample monitoring wells during all sampling events. Self-monitoring records shall be maintained in accordance with Part II.H. of this permit.
- 6. Submittal of electronic discharge monitoring reports (DMRs) are required, regardless of the operational status of the facility or of each individual monitoring well. At no time shall the permittee mark or state "No Discharge" within any monitoring well DMR.
- 7. If any of the monitoring wells are abandoned, destroyed, decommissioned or non-viable; or are no longer able to be sampled due to fluctuations in the ground water table; the permittee shall install (or rehab) a new well to replace the abandoned, destroyed, decommissioned, or non-viable well(s).

Table 4: Ground V	Table 4: Ground Water Monitoring and Reporting Requirements,	Repo	rting Re	quiremen	its, Separately	
Analyte/ Measurement	Monitor Location	Units	Sample Type	Minimum Sampling Frequency	Reporting <sup>(2)</sup> Requirements	Reporting Frequency
Monitoring Wells: MW-1A,	1A, MW-3A, MW-5A, MW-4B, MW-5B, MW-1C, and MW-3C.	4B, MW.	-5B, MW-1	C, and MW.	3C.	
Chloride (as Cl)	MW-1A, MW-3A, MW-5A, MW-4B, MW-5B, MW-1C, MW-3C.	mg/L	Grab	1/Quarter	Quarterly Average	Quarterly
Specific Conductivity @ 25°C	MW-1A, MW-3A, MW-5A, MW-4B, MW-5B, MW-1C, MW-3C.	mS/cm	Instant- aneous	1/Quarter	Quarterly Average	Quarterly
Static Water Level (SWL) <sup>(3)</sup>	MW-1A, MW-3A, MW-5A, MW-4B, MW-5B, MW-1C, MW-3C.	dmq-ŋ	Instant- aneous	1/Quarter	Quarterly Average	Quarterly
Temperature <sup>(4)</sup>	MW-1A, MW-3A, MW-5A, MW-4B, MW-5B, MW-1C, MW-3C.	J.	Instant- aneous	1/Quarter	Quarterly Average	Quarterly
Total Depth	MW-1A, MW-3A, MW-5A, MW-4B, MW-5B, MW-1C, MW-3C.	ft-bmp	Instant- aneous	1/Quarter	Quarterly Average	Quarterly
Nitrogen, Nitrate + Nitrite (as N)	MW-1A, MW-3A, MW-5A, MW-4B, MW-5B, MW-1C, MW-3C.	mg/L	Grab	1/Quarter	Quarterly Average	Quarterly
Nitrogen, Total Kjeldahl (TKN)(as N)	MW-1A, MW-3A, MW-5A, MW-4B, MW-5B, MW-1C, MW-3C.	mg/L	Grab	1/Quarter	Quarterly Average	Quarterly
Monitoring Weils: MW-	Monitoring Wells: MW-6A, MW-6B, and MW-6C.					Section 1
Chloride (as Cl)	MW-6A, MW-6B, MW-6C.	mg/L	Grab	1/Month	Monthly Average	Monthly
Escherichia coli Bacteria <sup>(5)</sup>	MW-6A, MW-6B, MW-6C.	CFU/	Grab	1/Month	Daily Maximum Monthly Average	Monthly
Specific Conductivity @ 25°C	MW-6A, MW-6B, MW-6C.	uS/cm	Instant- aneous	I/Month	Monthly Average	Monthly
Static Water Level (SWL) <sup>(3)</sup>	MW-6A, MW-6B, MW-6C.	fl-bmp	Instant- aneous	1/Month	Monthly Average	Monthly
Temperature <sup>(4)</sup>	MW-6A, MW-6B, MW-6C.	٥,	Instant- aneous	1/Month	Monthly Average	Monthly
Total Depth	MW-6A, MW-6B, MW-6C.	ft-bmp	Instant- aneous	1/Month	Monthly Average	Monthly
Nitrogen, Nitrate + Nitrite (as N)	MW-6A, MW-6B, MW-6C.	mg/L	Grab	1/Month	Monthly Average	Monthly
Nitrogen, Total Kjeldahi (TKN)(as N)	MW-6A, MW-6B, MW-6C.	mg/L	Grab	1/Month	Monthly Average	Monthly
Monitoring Wells: MW-	Monitoring Wells: MW-2A, MW-4A, MW-2B, MW-3B, MW-2C, and MW-4C.	3B, MW-	2C, and M	IW-4C.		

No monitoring will be required for MW-2A, MW-4A, MW-2B, MW-3B, MW-2C, MW-4C during this permit cycle. However, these monitoring wells shall be maintained for potential future monitoring.

Footnotes:

CFU = Colony Forming Units

ft-bmp = feet below measuring point

Sample collection must take place following well development. Representative samples of the formation water are achieved when the field measurements of temperature, specific conductivity, and pH have stabilized. The extraction of three well casing volumes is common practice. Each monitor well to be individually sampled and analyzed for each respective parameter listed above.

Monitoring Well information is provided in Section II of the associated Fact Sheet document.

- (2) Daily Maximum: Report highest measured daily value for the reporting period on Discharge Monitoring Report (DMR).
  (3) Measuring point (point of reference) for SWL measurements shall be from top of casing and measured to within 1/100th of one foot.
  (4) Temperature of ground water after well development.
  (5) The geometric mean must be reported if more than one sample is taken during a reporting period.

Page 10 of 24

Permit No.: MTX000116

# F. Special Conditions – Land Application

- 1. All land application (irrigation) operations must be done at agronomic rates defined as:
  - Nutrients will be applied in accordance with the needs of the crop; thus,
  - Rate and timing of application must be made to optimize the uptake of nutrients.

The permittee is prohibited from:

- Applying above agronomic rates that may lead to an unauthorized infiltration of pollutants to state ground water; and,
- Operating in a manner that results in standing wastewater or overland flow.

# G. Special Conditions – Other

- 1. The permittee will need to update DEQ on their plans to complete a Fate and Transport Study. The study is in regard to the discharge of treated wastewater to shallow ground water. The study may be used to better understand the fate of wastewater nutrients within the subsurface. The study results may be used to shed light on actual subsurface denitrification rates and in development of a site-specific (source-specific) mixing zone. A site-specific pump test (hydraulic conductivity) and vertical migration modeling may be incorporated into the study. If a study is performed, it will need to be submitted to DEQ prior to renewal of the next permit cycle (2023), or prior to the next major modification of this permit.
- 2. The permittee shall develop (or update) and implement a Ground Water Monitoring Standard Operating Procedures Plan. Permit Part I.E.3.
- 3. The permittee shall develop (or update) and implement an Effluent Flow Monitoring Standard Operating Procedures Plan. Permit Part I.D.6.

Permit No.: MTX000116

# H. Compliance Schedule

Permit Condition	Action	Freq.	Scheduled Completion  Date of Action <sup>(1)</sup>	Scheduled Report Due Date. (2)
Part I.D.6.	Develop (or update) and implement an Effluent Flow Monitoring - Standard Operating Procedures Plan. (3)	Single event	October 01, 2019	October 28, 2019
Part I.E.3.	Develop (or update) and implement a Ground Water Monitoring - Standard Operating Procedures Plan. <sup>(3)</sup>	Single event	October 01, 2019	October 28, 2019
Part I.G.1.	Provide update on plans for a Fate and Transport study.	Single event	October 01, 2019	October 28, 2019

#### Footnotes:

<sup>(1)</sup> The actions must be completed on or before the scheduled completion dates.

<sup>(2)</sup> Reports must be received by DEQ on or before the scheduled report due dates. The reports must include all information as required for each applicable permit condition.

<sup>(3)</sup> The completed plan (action), in place of a written report, must be received by the DEQ on or before the scheduled "report" due date.

Page 12 of 24 Permit No.: MTX000116

# II. MONITORING, RECORDING AND REPORTING REQUIREMENTS

## A. Representative Sampling

Samples taken in compliance with the monitoring requirements established under Part I of the permit shall be collected from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge.

### B. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under Part 136, Title 40 of the Code of Federal Regulations, unless other test procedures have been specified in this permit. All flow-measuring and flow-recording devices used in obtaining the data submitted in self-monitoring reports must indicate values within 10 percent of the actual flow being measured.

# C. Penalties for Tampering

The Montana Water Quality Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$25,000, or by imprisonment for not more than six months, or by both.

### D. Reporting

Monitoring results must be reported within a Discharge Monitoring Report (DMR). Monitoring results must be submitted electronically (NetDMR web-based application) no later than the 28<sup>th</sup> day of the month following the end of the monitoring period. If no discharge occurs during the entire reporting period, "No Discharge" must be reported within the respective DMR. Monitoring reports must be electronically signed and certified in accordance with Part IV.G. "Signatory Requirements" of this permit.

All other reports (e.g. special conditions, compliance actions) must be submitted no later than the 28th day of the month following the completion due date, unless otherwise specified. All reports required herein, must be signed and certified in accordance with Part IV.G. "Signatory Requirements" of this permit and submitted to DEQ at the following address:

Montana Department of Environmental Quality Water Protection Bureau PO Box 200901 Helena, Montana 59620-0901

Page 13 of 24

Permit No.: MTX000116

# E. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any Compliance Schedule of this permit shall be submitted to the Department in either electronic or paper format and be postmarked no later than 14 days following each schedule date unless otherwise specified in this permit.

# F. Additional Monitoring by the Permittee

If the permittee monitors any additional parameters or any parameter more frequently than required by this permit using approved analytical methods as specified in this permit, the results of this monitoring shall be included in the analysis and reporting of the data submitted in the Discharge Monitoring Report. Such increased frequency shall also be indicated.

# G. Records Contents

Records of monitoring information shall include:

- 1. The date, exact place, and time of sampling or measurements;
- 2. The initials or name(s) of the individual(s) who performed the sampling or measurements;
- 3. The date(s) analyses were performed;
- 4. The time analyses were initiated;
- 5. The initials or name(s) of individual(s) who performed the analyses;
- 6. References and written procedures, when available, for the analytical techniques or methods used; and
- 7. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results.

#### H. Retention of Records

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report, or application. This period may be extended by the request of the Department at any time. Data collected on site, copies of Discharge Monitoring Reports, and a copy of this MGWPCS permit must be maintained on site during the duration of activity at the permitted location.

Page 14 of 24

Permit No.: MTX000116

### I. Twenty-four Hour Notice of Noncompliance Reporting

- 1. The permittee shall report any serious incidents of noncompliance affecting the environment as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances. The report shall be made to the Water Protection Bureau at (406) 444-3080 or the Office of Disaster and Emergency Services at (406) 324-4777. The following examples are considered serious incidents:
  - a. Any noncompliance which may seriously endanger health or the environment; or
  - b. Any unanticipated bypass which exceeds any effluent limitation in the permit (See Part III.G. of this permit, "Bypass of Treatment Facilities").
- 2. A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:
  - a. A description of the noncompliance and its cause;
  - b. The period of noncompliance, including exact dates and times;
  - c. The estimated time noncompliance is expected to continue if it has not been corrected; and
  - d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
- 3. The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Water Protection Bureau, by phone, at (406) 444-3080.
- 4. Reports shall be submitted to the addresses in Part II.D. of this permit, "Reporting of Monitoring Results."

# J. Other Noncompliance Reporting

Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for Part II.D. of this permit are submitted. The reports shall contain the information listed in Part II.I.2. of this permit.

### K. Inspection and Entry

The permittee shall allow the head of the Department, the Director, or an authorized representative thereof, upon the presentation of credentials and other documents as may be required by law, to:

Page 15 of 24

Permit No.: MTX000116

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

- 2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- 3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- 4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance, any substances or parameters at any location.

### III. COMPLIANCE RESPONSIBILITIES

### A. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Montana Water Quality Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee shall give the Department advance notice of any planned changes at the permitted facility or of an activity which may result in permit noncompliance.

#### B. Penalties for Violations of Permit Conditions

The Montana Water Quality Act provides that any person who violates a permit condition of the Act is subject to civil or criminal penalties not to exceed \$25,000 per day or one year in prison, or both, for the first conviction, and \$50,000 per day of violation or by imprisonment for not more than two years, or both, for subsequent convictions. MCA 75-5-611(9)(a) also provides for administrative penalties not to exceed \$10,000 for each day of violation and up to a maximum not to exceed \$100,000 for any related series of violations. Except as provided in Part III.G. of this permit, "Bypass of Treatment Facilities," nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.

# C. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

#### D. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

Page 16 of 24

Permit No.: MTX000116

# E. Proper Operation and Maintenance

The 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 this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit. However, the permittee shall operate, as a minimum, one complete set of each main line unit treatment process whether or not this process is needed to achieve permit effluent compliance.

### F. Removed Substances

Collected screenings, grit, solids, sludge, or other pollutants removed in the course of treatment shall be disposed of in such a manner so as to prevent any pollutant from entering any waters of the state or creating a health hazard.

# G. Bypass of Treatment Facilities

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts III.G.2. and III.G.3. of this permit.

#### 2. Notice:

- a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least 10 days before the date of the bypass.
- b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required under Part II.I. of this permit, "Twenty-four Hour Reporting."

# 3. Prohibition of bypass:

- a. Bypass is prohibited and the Department may take enforcement action against a permittee for a bypass, unless:
  - 1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
  - 2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This

Page 17 of 24 Permit No.: MTX000116

condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

- 3) The permittee submitted notices as required under Part III.G.2. of this permit.
- b. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in Part III.G.3.a. of this permit.

# IV. GENERAL REQUIREMENTS

# A. <u>Planned Changes</u>

The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

- 1. The alteration or addition could significantly change the nature or increase the quantity of pollutant discharged. This notification applies to pollutants which are not subject to effluent limitations in the permit; or
- 2. There are any planned substantial changes to the existing sewage sludge management practices of storage and disposal. The permittee shall give the Department notice of any planned changes at least 180 days prior to their implementation.

## B. Anticipated Noncompliance

The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

### C. Permit Actions

This permit may be revoked, modified and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

### D. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application must be submitted at least 180 days before the expiration date of this permit.

Page 18 of 24

Permit No.: MTX000116

# E. Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for revoking, modifying and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

# F. Other Information

When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Department, it shall promptly submit such facts or information with a narrative explanation of the circumstances of the omission or incorrect submittal and why they weren't supplied earlier.

# G. Signatory Requirements

All applications, reports or information submitted to the Department shall be signed and certified.

- 1. All permit applications shall be signed as follows:
  - a. For a corporation: by a responsible corporate officer:
  - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
  - c. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.
- 2. All reports required by the permit and other information requested by the Department shall be signed by a person described above or by a duly authorized representative of that person. A person is considered a duly authorized representative only if:
  - a. The authorization is made in writing by a person described above and submitted to the Department; and
  - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters (a duly authorized representative may thus be either a named individual or an individual occupying a named position).
- 3. Changes to authorization. If an authorization under Part IV.G.2. of this permit is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization

Page 19 of 24 Permit No.: MTX000116

satisfying the requirements of Part IV.G.2. of this permit must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

# H. Penalties for Falsification of Reports

The Montana Water Quality Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than \$25,000 per violation, or by imprisonment for not more than six months per violation, or by both.

# I. Availability of Reports

All reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department and the EPA. Permit applications, permits and effluent data shall not be considered confidential and shall also be available for public inspection.

### J. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act.

### K. Property or Water Rights

The issuance of this permit does not convey any property or water rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property, any invasion of personal rights, or any infringement of federal, state or local laws or regulations.

Page 20 of 24

Permit No.: MTX000116

# L. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

#### M. Transfers

This permit may be automatically transferred to a new permittee if:

- 1. The current permittee notifies the Department at least 30 days in advance of the proposed transfer date;
- 2. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them;
- 3. The Department does not notify the existing permittee and the proposed new permittee of the intent to revoke or modify and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part IV.M.2. of this permit; and
- 4. Required annual and application fees have been paid.

#### N. Fees

The permittee is required to submit payment of an annual fee as set forth in ARM 17.30.201. If the permittee fails to pay the annual fee within 90 days after the due date for the payment, the Department may:

- 1. Impose additional fee assessment(s) computed at the rates established under ARM 17.30.201; and
- 2. Suspend the processing of the application for a permit or authorization or, if the nonpayment involves an annual permit fee, suspend the permit, certificate or authorization for which the fee is required. The Department may lift suspension at any time up to one year after the suspension occurs if the holder has paid all outstanding fees, including all penalties, assessments and interest imposed under this sub-section. Suspensions are limited to one year, after which the permit will be terminated.

# O. Reopener Provisions

This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations (and compliance schedule, if necessary), or other appropriate requirements if one or more of the following events occurs:

Page 21 of 24 Permit No.: MTX000116

Water Quality Standards: The water quality standards of the receiving water(s) to which the permittee discharges are modified in such a manner as

to require different effluent limits than contained in this permit; or

2. Water Quality Standards are Exceeded: If it is found that water quality standards or trigger values, excluding mixing zones designated by ARM 17.30.501-518, for parameters included in the permit or others, the department may modify the effluent limits or water management plan.

#### V. **DEFINITIONS**

- 1. **"30-day (and Monthly) Average"** other than for *E. coli* bacteria, means the arithmetic average of all individual daily discharge measurements during a consecutive 30-day period or calendar month, whichever is applicable (see Daily Discharge). The arithmetic average must not include any individual daily measurements collected on days in which discharge did not occur (e.g. flow measurements). Geometric means shall be calculated for the *E. coli* bacteria parameter.
- 2. **"90-day (and Quarterly) Average"** other than for *E. coli* bacteria, means the arithmetic average of all individual daily discharge measurements during a consecutive 90-day period or calendar quarter, whichever is applicable (see Daily Discharge). The arithmetic average must not include any individual daily measurements collected on days in which discharge did not occur (e.g. flow measurements). Geometric means shall be calculated for the *E. coli* bacteria parameter.
- 3. **"180-day (and Six-Month or Semi-Annual) Average"** other than for *E. coli* bacteria, means the arithmetic average of all individual daily discharge measurements collected during a consecutive 180-day period or calendar half-year, whichever is applicable (see Daily Discharge). The arithmetic average must not include any individual daily measurements collected on days in which discharge did not occur (e.g. flow measurements). Geometric means shall be calculated for the *E. coli* bacteria parameter.
- 4. "Act" means the Montana Water Quality Act, Title 75, chapter 5, MCA.
- 5. **"Annual Average Load"** means the arithmetic mean of all calculated individual daily average loads (lbs/day) recorded during the calendar year, multiplied by 365 (days/year) for a monitored parameter.
- 6. **"Annual Maximum Limit"** means the maximum allowable discharge of a parameter during a calendar year (or defined 365 day period).

Page 22 of 24 Permit No.: MTX000116

7. "Best management practices" ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of state waters. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

- 8. **"BOD5"** means the five-day measure of the biochemical oxygen demand parameter.
- 9. **"Bypass"** means the intentional diversion of waste streams from any portion of a treatment facility.
- 10. "Composite Sample" means a sample that consists of two or more discrete aliquots. Composite samples shall be flow proportioned. The composite sample shall, as a minimum, contain at least four (4) samples collected over the compositing period. Unless otherwise specified, the time between the collection of the first sample and the last sample shall not be less than six (6) hours nor more than 24 hours. Acceptable methods for preparation of composite samples are as follows:
  - a. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;
  - b. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample, the flow rate at the time the sample was collected may be used;
  - c. Constant sample volume, time interval between samples proportional to flow (i.e. sample taken every "X" gallons of flow); and,
  - d. Continuous collection of sample, with sample collection rate proportional to flow rate.
- 11. "CFR" means Code of Federal Regulations.
- 12. "CFU" means Colony Forming Units.
- 13. "Continuous" means a measurement occurring without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance process changes, or other similar activities.
- 14. **"Daily Discharge"** means the discharge of a parameter (or pollutant) measured during a calendar day (or any 24-hour period that reasonably represents the calendar day for purposes of sampling). For parameters with limitations

Page 23 of 24 Permit No.: MTX000116

expressed in units of mass, the daily discharge is calculated as the total mass of the parameter discharged over the day. For parameters with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic average of all measurements (or samples) collected over the day.

- 15. **"Daily Maximum"** means the highest individual measured daily value occurring in a defined reporting period (see Daily Discharge).
- 16. **"Daily Maximum Limit"** means the maximum allowable discharge of a parameter for any calendar day (see Daily Discharge).
- 17. "DEQ" means the Montana Department of Environmental Quality.
- 18. "Department" means the Montana Department of Environmental Quality.
- 19. **"Discharge"** means the injection, deposit, dumping, spilling, leaking, placing, or failing to remove any pollutant so that it or any constituent thereof may enter into state waters, including ground water.
- 20. **"Grab Sample"** means a sample which is taken from a waste stream on a one-time basis without consideration of flow rate of the effluent or without consideration for time.
- 21. "Instantaneous" means a single reading, observation, or measurement.
- 22. **"Load Limits"** are mass-based discharge limits expressed in units such as lbs/day.
- 23. "Mixing Zone" means a limited area of a surface water body or ground water bearing zone where initial dilution of a discharge takes place and where certain water quality standards may be exceeded.
- 24. "Nondegradation" means the prevention of a significant change in water quality that lowers the quality of high quality water for one or more parameters. Also, the prohibition of any increase in discharge that exceeds the design capacity or limitations established under or determined from a permit or approval issued by the Department prior to April 29, 1993.
- 25. "RRV" means Required Reporting Values (DEQ Circular 7).
- 26. "Severe Property Damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

Page 24 of 24 Permit No.: MTX000116

- 27. "TSS" means the total suspended solids parameter.
- "Total Inorganic Nitrogen (TIN)" means the arithmetic sum of Nitrate + 28. Nitrite and Ammonia.
- "Total Nitrogen (TN)" means the arithmetic sum of Nitrate + Nitrite and 29. Total Kjeldahl Nitrogen.