Minor Industrial
Permit No.: MT0026808

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

AUTHORIZATION TO DISCHARGE UNDER THE MONTANA POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with Montana Water Quality Act, Title 75, Chapter 5, Montana Code Annotated (MCA) and the Federal Water Pollution Control Act (the "Clean Water Act"), 33 U.S.C. § 1251 *et seq.*,

Stillwater Mining Company

COPY

is authorized to discharge from its **Stillwater East Boulder Mine**

located at **Township 4 South, Range 13 East, Sections 2 & 11, Sweet Grass County, Montana**

to receiving waters named, **East Boulder River and associated 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.

This permit shall become effective: **November 1, 2015.**

This permit and the authorization to discharge shall expire at midnight, **October 31, 2020.**

FOR THE MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Christian G. Schmidt
Planning, Prevention, and Assistance Division Administrator

Issuance Date: September 28, 2015

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I. EFFLUENT LIMITATIONS, MONITORING REQUIREMENTS & OTHER CONDITIONS

A. Description of Discharge Points and Mixing Zone

The authorization to discharge provided under this permit is limited to those outfalls specifically designated below as discharge locations. Discharges at any location not authorized under an MPDES permit is a violation of the Montana Water Quality Act and could 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.

Below is a description of the discharges locations authorized by this permit and any associated mixing zones.

Outfall	Discharge Location(s) and Mixing Zone(s)
001	**Location:** Through effluent diffuser after treatment, discharging into the **East Boulder River** located at: 45° 30' 44" N latitude, 110° 05' 14" W longitude. **Mixing Zone:** The maximum extent of the chronic mixing zone in the named receiving waters is as follows: 100 feet downstream; and 10 feet in width for the following parameters: temperature, total phosphorus, ammonia, nitrate + nitrite, iron, chromium, nickel, and zinc. The maximum extent of the acute mixing zone in the named receiving waters is as follows: 10 feet downstream; and 1 foot wide for the following parameters: ammonia, nickel, and zinc. **Treatment Works**: Up to 500 gallons per minute (gpm) of treated wastewater from the mine adit on a monthly average basis, in tandem with Outfall 002.
002	**Location:** At the end of the pipe after treatment, discharging into **the percolation pond** located at: 45° 30' 16" N latitude, 110° 05' 06" W longitude which percolates into ground water. **Mixing Zone:** The maximum extent of the ground water mixing zone is as follows: from the point of discharge through the percolation pond, extending in a northwesterly direction approximately 3,600 feet downgradient and approximately 700 feet wide at its terminal end for the following parameters: nitrite + nitrate, iron, chromium, nickel, and zinc. **Treatment Works**: Expected average of up to 500 gallons per minute (gpm) of treated wastewater from the mine adit, in tandem with Outfall 001.
003	**Location:** At the end of the pipe, discharging into **a septic drain field** located at: 45° 30' 11" N latitude, 110° 05' 06" W longitude. **Mixing Zone:** None. **Treatment Works**: Design capacity of 4 gpm.

B. Effluent Limitations

1. Interim Limits

From the effective date of the permit until 58 months from effective date, the quality of effluent discharged by the facility shall, as a minimum, meet the limitations as set forth below:

Outfall 001 – Interim Limits

Interim effluent limitations for Outfall 001 to East Boulder River			
Parameter	**Units**	**Effluent Limitations**	
		Average Monthly	Maximum Daily
pH	SU	6.0 to 9.0	
Total Suspended Solids	mg/L	20	30
Cadmium, Total Recoverable	µg/L	1.4	2.1
Chromium, Total Recoverable	µg/L	50	75
Copper, Total Recoverable	µg/L	8.0	12.0
Iron, Total Recoverable	µg/L	430	650
Lead, Total Recoverable	µg/L	1.0	1.5
Nickel, Total Recoverable	µg/L	24	36
Zinc, Total Recoverable	µg/L	30	45
Ammonia Nitrogen, Total, as N	mg/L	1.5	2.2
Total Phosphorus July 1 to September 30	lbs/day	12	--
Whole Effluent Toxicity Chronic, *Ceriodaphnia* 7-Day, Static Renewal (TCP3B)	Percent Effluent	>100	>100
Whole Effluent Toxicity Chronic, *Pimephales* 7-Day, Static Renewal(TCP6C)	Percent Effluent	>100	>100

a. There shall be no discharge of floating solids or visible foam in other than trace amounts.

b. There shall be no discharge that causes visible oil sheen in the receiving stream.

Outfalls 001 & 002 – Sum Interim Limits

Interim effluent limitations for sum of Outfall 001 and Outfall 002			
Parameter	**Units**	**Effluent Limitations**	
		Average Monthly	Maximum Daily
Total Nitrogen, as N [1]	lbs/day	30	--
[1] The interim total nitrogen limit is calculated by taking the sum of the total nitrogen discharged at Outfall 001 and the total inorganic nitrogen discharged at Outfall 002.			

Outfall 003 – Interim Limits

Interim effluent limitations for Outfall 003			
Parameter	**Units**	**Effluent Limitations**	
		Average Monthly	Maximum Daily
Nitrate + Nitrite	lbs/day	2.0	--

2. Final Limits

As of midnight, 58 months from effective date, and lasting through the term of the permit, the quality of effluent discharged by the facility shall, as a minimum, meet the limitations as set forth below:

Outfall 001 – Final Limits

Final effluent limitations for Outfall 001 to East Boulder River			
Parameter	**Units**	**Effluent Limitations**	
		Average Monthly	Maximum Daily
pH	SU	6.0 to 9.0	
Total Suspended Solids	mg/L	20	30
Cadmium, Total Recoverable	µg/L	0.7	1.1
Chromium, Total Recoverable	µg/L	50	75
Copper, Total Recoverable	µg/L	8	12
Iron, Total Recoverable	µg/L	430	650
Lead, Total Recoverable	µg/L	1.0	1.5
Mercury, Total Recoverable	µg/L	0.005	0.007
Nickel, Total Recoverable	µg/L	24	36
Zinc, Total Recoverable	µg/L	30	45
Ammonia Nitrogen, Total, as N	mg/L	1.5	2.2
Total Phosphorus July 1 to September 30	lbs/day	12	--
Whole Effluent Toxicity Chronic, *Ceriodaphnia* 7-Day, Static Renewal (TCP3B)	Percent Effluent	>100	>100
Whole Effluent Toxicity Chronic, *Pimephales* 7-Day, Static Renewal(TCP6C)	Percent Effluent	>100	>100

a. There shall be no discharge of floating solids or visible foam in other than trace amounts.

b. There shall be no discharge that causes visible oil sheen in the receiving stream.

Outfall 002 – Final Limits

Final effluent limitations for Outfall 002 to Ground Water			
Parameter	**Units**	**Effluent Limitations**	
		Average Monthly	**Maximum Daily**
pH	SU	6.0 to 9.0	
Cadmium, Total Recoverable	µg/L	0.024[1]	0.035
Copper, Total Recoverable	µg/L	0.78[1]	1.14[1]
Iron, Total Recoverable	µg/L	696	1,016
Lead, Total Recoverable	µg/L	0.20[1]	0.28[1]
Mercury, Total Recoverable	µg/L	0.005	0.005
Nickel, Total Recoverable	µg/L	6.2	9.1
Zinc, Total Recoverable	µg/L	12	17
Nitrate + Nitrite	mg/L	8.9	13.0
[1] Required reporting value (RRV) in DEQ-7 is greater than the effluent limitation; in these cases, analytical results less than or equal to the RRV will be considered to be in compliance with the limit.			

Outfalls 001 & 002 – Sum Final Limits

Final effluent limitations for sum of Outfall 001 and Outfall 002			
Parameter	**Units**	**Effluent Limitations**	
		Average Monthly	Maximum Daily
Total Nitrogen, as N [1]	lbs/day	30	--
Copper, Total Recoverable	lbs/day	0.061	--
Iron, Total Recoverable	lbs/day	28.5	--
Lead, Total Recoverable	lbs/day	0.005	--
[1] Total Nitrogen, as N is calculated as the sum of TKN and nitrate + nitrite. The final total nitrogen limit is calculated by taking the sum of the total nitrogen discharged at Outfall 001 and the total nitrogen discharged at Outfall 002.			

Outfall 003- Final Limits

Final effluent limitations for Outfall 003			
Parameter	**Units**	**Effluent Limitations**	
		Average Monthly	Maximum Daily
Nitrate + Nitrite	lbs/day	2.0	--

C. Monitoring Requirements

As a minimum, upon the effective date of this permit, the following constituents shall be monitored at the frequency and with the type of measurement indicated; samples or measurements shall be representative of the volume and nature of the monitored discharge. If no discharge occurs during the entire monitoring period, it shall be stated on the Discharge Monitoring Report Form (EPA No. 3320-1) that no discharge or overflow occurred.

All analytical procedures must comply with the specifications of 40 CFR Part 136 and the analysis must meet any Required Reporting Values (RRVs) listed in Circular DEQ-7 unless otherwise specified. Samples shall be collected, preserved and analyzed in accordance with approved procedures listed in 40 CFR 136.

Outfall 001

The Permittee must provide an acceptable monitoring location to the Department, in writing, prior to initiating discharge from Outfall 001. Monitoring must occur after all treatment has occurred, prior to mixing with the East Boulder River, at any time that discharge occurs from this outfall.

Monitoring requirements at monitoring location 001A

Parameter and Code	Units	Minimum Monitoring Frequency	Sample Type	Required Reporting Value (RRV)[1]	Reporting Requirement
Effluent Flow Rate (00056)	mgd	Continuous	Recording Device	--	Daily Max & Mo Avg
pH (00400)	SU	3/Week	Instantaneous	0.1	Daily Min & Daily Max
Total Suspended Solids (00530)	mg/L	3/Week	Grab	1	Daily Max & Mo Avg
Cadmium, Total Recoverable (01113)	µg/L	1/Week	Grab	0.03	Daily Max & Mo Avg
Chromium, Total Recoverable (01034)	µg/L	1/Week	Grab	10	Daily Max & Mo Avg
Copper, Total Recoverable (01119)	µg/L	1/Week	Grab	2	Daily Max & Mo Avg
Iron, Total Recoverable (00980)	µg/L	1/Week	Grab	20	Daily Max & Mo Avg
Lead, Total Recoverable (01114)	µg/L	1/Week	Grab	0.3	Daily Max & Mo Avg
Mercury, Total Recoverable (71901)	µg/L	1/Month	Grab	0.005	Daily Max & Mo Avg
Nickel, Total Recoverable (01074)	µg/L	1/Week	Grab	2	Daily Max & Mo Avg
Zinc, Total Recoverable (01094)	µg/L	1/Week	Grab	8	Daily Max & Mo Avg
Ammonia, as N (00610)	mg/L	1/Week	Grab	0.05	Daily Max & Mo Avg
Nitrate + Nitrite (as N) (00630)	mg/L	1/Week	Grab	0.2	Daily Max & Mo Avg
Total Kjeldahl Nitrogen (TKN) (00625) [2]	mg/L	1/Week	Grab	0.1	(2)
Total Nitrogen, as N (00600) [2]	mg/L	1/Week	Calculate	0.1	Mo Avg
Total Nitrogen, as N (00600)	lbs/day	1/Week	Calculate	--	Mo Avg
Total Phosphorus (00665)	mg/L	1/Week[3]	Grab	3	Mo Avg
Total Phosphorus (00665)	lbs/day	1/Week[3]	Calculate	--	Mo Avg
Temperature, Effluent (00011)	°F	Continuous	Recording Device	0.1	Daily Max
Instream Temperature Increase (03772)	°F	1/Day	Calculate [4]	0.1	Daily Max & Mo Avg
Whole Effluent Toxicity, Chronic, *Ceriodaphnia* 7-Day, Static Renewal (TCP3B)	Percent Effluent	1/Quarter	Composite	Per Method	Pass/Fail
Whole Effluent Toxicity, Chronic, *Pimephales* 7-Day, Static Renewal (TCP6C)	Percent Effluent	1/Quarter	Composite	Per Method	Pass/Fail

[1] In cases where the required reporting value (RRV) in DEQ-7 is greater than the effluent limitation, analytical results less than or equal to the RRV will be considered to be in compliance with the limit.
[2] TN is either calculated as the sum of TKN and nitrate + nitrite, or via the persulfate digestion method. TKN is not required if the persulfate method is used.
[3] Total Phosphorus monitoring is seasonal and is required only during July 1st – September 30th.
[4] See Part I.D.4 for information on calculating temperature increase.

Outfall 002

Monitoring must occur at the end of the pipe or ditch discharging into the percolation pond at any time discharge occurs from this outfall.

Monitoring requirements at monitoring location 002A					
Parameter and Code	**Units**	**Minimum Monitoring Frequency**	**Sample Type**	**Required Reporting Value (RRV) [1]**	**Reporting Requirement**
Effluent Flow Rate (00056)	mgd	Continuous	Recording Device	--	Daily Max & Mo Avg
pH (00400)	SU	1/Day	Instantaneous	0.1	Daily Min & Daily Max
Cadmium, Total Recoverable (01113)	µg/L	1/Month	Grab	0.03	Daily Max & Mo Avg
Chromium, Total Recoverable (01034)	µg/L	1/Month	Grab	10	Daily Max & Mo Avg
Copper, Total Recoverable (01119)	µg/L	1/Month	Grab	2	Daily Max & Mo Avg
Iron, Total Recoverable (00980)	µg/L	1/Month	Grab	20	Daily Max & Mo Avg
Lead, Total Recoverable (01114)	µg/L	1/Month	Grab	0.3	Daily Max & Mo Avg
Mercury, Total Recoverable (71901)	µg/L	1/Month	Grab	0.005	Daily Max & Mo Avg
Nickel, Total Recoverable (01074)	µg/L	1/Month	Grab	2	Daily Max & Mo Avg
Zinc, Total Recoverable (01094)	µg/L	1/Month	Grab	8	Daily Max & Mo Avg
Nitrate + Nitrite (as N) (00630)	mg/L	1/Week	Grab	0.2	Daily Max & Mo Avg
Ammonia, as N (00610)	mg/L	1/Week	Grab	0.07	Daily Max & Mo Avg
Total Inorganic Nitrogen (TIN) (00640) [2]	mg/L	1/Week	Grab	0.01	Daily Max & Mo Avg
Total Kjeldahl Nitrogen (TKN) (00625)	mg/L	1/Week	Grab	0.1	(2)
Total Nitrogen, as N (00600) [2]	mg/L	1/Week	Calculate	0.1	Mo Avg
Total Nitrogen, as N (00600) [2]	lbs/day	1/Week	Calculate	--	Mo Avg

[1] In cases where the required reporting value (RRV) in DEQ-7 is greater than the effluent limitation, analytical results less than or equal to the RRV will be considered to be in compliance with the limit.
[2] Total Inorganic Nitrogen is calculated as the sum of ammonia, as N plus nitrate + nitrite, as N and Total Nitrogen is either calculated as the sum of TKN and nitrate + nitrite, or via the persulfate digestion method. TKN is not required if the persulfate method is used.

SUM of Outfalls 001 and 002

Monitoring requirements at monitoring locations 001A and 002A				
Parameter and Code	**Units**	**Minimum Monitoring Frequency**	**Sample Type**	**Reporting Requirement**
Total Inorganic Nitrogen (TIN) (00640) [1]	lbs/day	1/Month	Calculate	Daily Max & Mo Avg.
Total Nitrogen, As N (00600) [2]	lbs/day	1/Month	Calculate	Daily Max & Mo Avg.
Copper, Total Recoverable (01119)	lbs/day	1/Month	Calculate	Mo Avg
Iron, Total Recoverable (00980)	lbs/day	1/Month	Calculate	Mo Avg
Lead, Total Recoverable (01114)	lbs/day	1/Month	Calculate	Mo Avg

[1] Total Inorganic Nitrogen is calculated as the sum of ammonia, as N plus nitrate + nitrite, as N.
[2] Total Nitrogen is either calculated as the sum of TKN and nitrate + nitrite, or via the persulfate digestion method. TKN is not required if the persulfate method is used..

Outfall 003

Monitoring must occur after treatment, prior to release into groundwater.

Monitoring requirements at monitoring location 003A					
Parameter and Code	**Units**	**Minimum Monitoring Frequency**	**Sample Type**	**Required Reporting Value (RRV)**	**Reporting Requirement**
Effluent Flow Rate (00056)	gpd	Daily		--	Monthly Avg
Biochemical Oxygen Demand (BOD_5) (00310)	mg/L	1/Quarter	Grab	2	Quarterly Avg
Total Suspended Solids (00530)	mg/L	1/Quarter	Grab	1	Quarterly Avg
Nitrate + Nitrite (as N) (00630)	mg/L	1/Quarter	Grab	0.2	Quarterly Avg
	lbs/day	1/Quarter	Calculate	--	Quarterly Avg
pH (00400)	su	1/Quarter	Grab	0.1	Quarterly Min & Max

Composite Samples

Composite samples shall, as a minimum, be composed of four or more discrete aliquots (samples) of equal volume and time collected in a 24 hour period. The aliquots shall be combined in a single container for analysis (simple composite). 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.

WET – Chronic Toxicity

Starting in the first calendar quarter following the effective date of the permit, the permittee shall, at least once each calendar quarter, conduct a chronic static renewal toxicity test on a composite sample of the effluent. Testing will employ two species per quarter and will consist of 5 effluent concentrations (3, 6, 12, 56, and 100 percent effluent) and a control. Dilution water and the control shall consist of the receiving water and must be collected upstream of the discharge. A minimum of three effluent samples are required for chronic toxicity tests. These samples must be collected on days 1, 3, and 5, and be shipped to the testing laboratory. The first sample is used for test initiation and for renewal on test day 2. The second sample is used for test renewal on test days 3 and 4. The third sample is used for renewal on test days 5, 6, and 7.

The static renewal toxicity tests shall be conducted in general accordance with the procedures set out in the latest revision of *Short Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to Freshwater Organisms,* EPA-821-R-02-013 (October 2002) and the "*Region VIII NPDES Whole Effluent Toxics Control Program, August 1997.*" The permittee shall conduct a three-brood (seven day) survival and reproduction static renewal toxicity test using *Ceriodaphnia dubia* (test method 1002.0) and a seven day growth and survival static renewal toxicity test using *Pimephales promelas* (test method 1000.0). The control of pH in the toxicity test utilizing CO_2 enriched atmospheres is allowed to prevent rising pH drift. The target pH selected must represent the pH value of the receiving water at the time of sample collection. The use of CO_2 to control pH drift must be in accordance with the requirements of sections 12.3.5, 12.3.5.1 through 4, and 12.3.5.2, and all other test requirements, in the chronic methods manual (EPA-821-R-02-013).

Chronic toxicity occurs when the inhibition concentration to 25% of the test population (IC_{25}) is less than or equal to the 12% effluent concentration. Control survival and growth or reproduction must meet the requirements specified in the method.

If chronic toxicity occurs in a routine test, an additional test shall be conducted within 14 days of the date of the initial sample. Should chronic toxicity occur in the second test, testing shall occur once a month until further notified by the Department and a TIE-TRE shall be initiated as required in Part I.D.1. In all cases, the results of all toxicity tests must be submitted to the Department in accordance with Part II of this permit.

The quarterly results from the laboratory shall be reported along with the Discharge Monitoring Report (DMR) form submitted for the end of the reporting calendar quarter (e.g., whole effluent results for the reporting quarter ending March 31 shall be reported with the March DMR due April 28th with the remaining quarterly reports submitted with the June, September, and December DMR's). The format for the laboratory report shall be consistent with the latest revision of Region VIII Guidance for Whole Effluent Reporting, and shall include all chemical and physical data as specified.

If the results for eight consecutive quarters of testing indicate no toxicity, the permittee may request a reduction to semi-annual (twice per year) chronic toxicity testing on two species. The Department may approve or deny the request based on the results and other available information without an additional public notice. If the request is approved, the test procedures are to be the same as specified above. One semi-annual test must be conducted in the second calendar quarter and one in the fourth quarter, each year.

D. Special Conditions

1. Toxicity Identification Evaluation / Toxicity Reduction Evaluation (TIE/TRE)

If toxicity is detected, and it is determined by the Department that a TIE/TRE is necessary, the permittee shall be so notified and shall initiate a TIE/TRE immediately thereafter. The purpose of the TIE/TRE will be to establish the cause of the toxicity, locate the source(s) of the toxicity, and control or provide treatment for the toxicity.

Failure to initiate or conduct an adequate TIE/TRE; delays in the conduct of such tests; failure to submit a plan or program as described below; or the submittal of a plan or program judged inadequate by the Department shall not be considered a justification for noncompliance with the whole effluent toxicity limits and shall not excuse the permittee from meeting the limits contained in Part I.B. of this permit.

If the TIE/TRE establishes that the toxicity cannot be eliminated, the permittee shall submit a proposed compliance plan to the Department. The plan shall include the proposed approach to control toxicity and a proposed compliance schedule for achieving control. If the approach and schedule are acceptable to the Department, this permit may be reopened and modified.

If the TIE/TRE shows that the toxicity is caused by a toxicant(s) that may be controlled with specific numerical limitations, the permittee may:

a. Submit an alternative control program for compliance with the numeric requirements,

b. If necessary, provide a modified whole effluent testing protocol which compensates for the pollutant(s) being controlled numerically.

If acceptable to the Department, this permit may be reopened and modified to incorporate any additional numerical limitations, a modified compliance schedule if judged necessary by the Department, and/or a modified whole effluent protocol.

2. Best Management Practices (BMPs)

The Permittee has identified several potential sites for land application at the Facility. The Permittee must develop and implement a BMP program that achieves the objectives and specific requirements listed below for these land application sites. The BMP program must be implemented as soon as possible, but no later than nine months from the effective date of the permit. The written program and associated records must be updated as necessary and maintained on-site in order to be available for review.

The BMP program shall be developed in accordance with good engineering practices and designed to achieve the stated objectives in this section. The BMP program must conform to EPA's *Guidance Manual for Developing Best Management Practices (BMP)*, EPA 833-B-93-004, October 1993, or equivalent. The purpose of the program is to control runoff from land application areas and minimize nitrogen and metals levels in soils and ground water.

The specific objectives of the BMP program are as follows:

a. The application of treated wastewater to land application sites during the growing season must occur at a rate consistent with agronomic uptake of nitrogen.

b. The application of treated wastewater to land application sites must be managed to prevent ponding of wastewater on land application sites and prevent or eliminate the discharge of pollutants from land application sites to state waters.

c. Snowmaking activities must be conducted in a manner which maximizes chemical and physical processes that reduce or eliminate nitrogen content of the snow and minimize any discharge of pollutants to state waters.

d. Snowmaking and seasonal irrigation sites shall maintain appropriate buffer zones between any downgradient or downslope surface waters, open tile intake structures, sinkholes, agricultural well heads, or other conduits to surface waters.

e. The Permittee must monitor and maintain records regarding the daily and total volume, area, quality, rate of application to the land application site(s), and routine inspection of the land application sites.

3. Facility Optimization Study:

The permittee must complete a Facility Optimization Study and Nutrient Reduction Analysis. The Study must include an analysis of nutrient trading feasibility within the watershed. Written notification indicating completion and availability of the Study results must be submitted to the Department as described in Part I.E. of this permit.

4. Ambient Monitoring – Temperature

Instream monitoring is only required when effluent is discharged to the East Boulder River through Outfall 001.

The Permittee must install, operate and maintain a temperature monitoring device that records instream temperature at a minimum of 15-minute intervals and can report daily average temperature. The temperature difference (ΔT) is determined by subtracting the downstream average daily temperature (T_d) from the upstream average daily temperature (T_u). The temperature difference (ΔT) shall be reported on the DMR for Outfall 001A.

Ambient temperature monitoring requirements					
Location	**Parameter**	**Units**	**Minimum Monitoring Frequency**	**Sample Type**	**Minimum Level**
001U—Upstream	Temperature, Water (T_u).	°F	Continuous	Recording Device	0.1
001D—Downstream	Temperature, Water (T_d)	°F	Continuous	Recording Device	0.1

The Permittee must develop a protocol to implement this monitoring requirement. Instream monitoring must commence at least 48 hours prior to discharge and continue for at least 96 hours after cessation of the discharge. Ambient temperature monitoring is subject to the monitoring and record keeping requirements in this permit, but is not required to submit the data in DMR forms.

5. Ground Water Monitoring

The Facility will conduct quarterly monitoring at the seven existing monitoring wells (WW-1, MW-2, MW-3, MW-6, MW-7, MW-8, and MW-9), at a minimum. The quarterly monitoring data will be submitted on DMRs, due the 28th of the month following the monitoring period.

Ground Water Monitoring			
Parameter	**Units**	**Frequency**	**Type**
Static Water Level	ft. below ground surface	Quarterly	Grab
pH	SU	Quarterly	Grab
Specific Conductance	umhos/cm	Quarterly	Grab
Ammonia, as N	mg/L	Quarterly	Grab
Nitrate + Nitrite, as N	mg/L	Quarterly	Grab
Total Inorganic Nitrogen	mg/L	Quarterly	Calculated[1]
[1] Total Inorganic Nitrogen is the sum of ammonia, as N and nitrate + nitrite.			

E. Compliance Schedule

1. Compliance with Final Limits

The Permittee shall submit an annual report of progress towards compliance with the final effluent limits, or towards the submission of a request to modify the final effluent limits. The annual progress shall be submitted to the Department by no later than January 28th of each year.

Should the Permittee choose to apply for a permit modification, such a request must be submitted to the Department no later one year prior to the effective date of the final effluent limits. The Permittee is encouraged to coordinate all activities with the Department, prior to their initiation.

2. Nutrient Optimization Study

The actions listed in the table below must be completed on or before the respective scheduled completion dates. The completion of all actions or deliverables must be reported to the Department at the address listed in Part II.D. of the permit and in accordance with the signatory requirements of Part IV.G. of the permit.

Nutrient Optimization Study Compliance Schedule

Action	Frequency	Scheduled Completion Date of Action [1]	Report Due Date[2]
Complete a Facility Optimization Study and Nutrient Reduction Analysis	Single Event	By 2 years after effective date	NA
Submit Notification that the Facility Optimization Study and Nutrient Reduction Analysis is Complete	Single Event	By 2 years after effective date	Due 28th of the month following scheduled completion date

Footnotes:
NA = Not Applicable
[1] The actions must be completed on or before the scheduled completion dates.
[2] This notification must be postmarked or electronically submitted to the Department on or before the scheduled due date.

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.

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 $10,000, or by imprisonment for not more than six months, or by both.

D. Reporting of Monitoring Results

Monitoring results must be reported on a Discharge Monitoring Report (DMR) EPA form 3320-1. Monitoring results must be submitted in either electronic or paper format and be postmarked no later than the 28th day of the month following the end of the monitoring period. Whole effluent toxicity (biomonitoring) results must be reported with copies of the laboratory analysis report on forms from the most recent version of EPA Region VIII's "Guidance for Whole Effluent Reporting". If no discharge occurs during the reporting period, "no discharge" must be reported on the report form. Legible copies of these, and all other reports required herein, must be signed and certified in accordance with Part IV.G 'Signatory Requirements' of this permit and submitted to the Department at the following address:

Montana Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, Montana 59620-0901
Phone: (406) 444-3080

E. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit must 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 the permit.

F. Additional Monitoring by the Permittee

If the permittee monitors any pollutant 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 calculation 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 request of the Department at any time. Data collected on site, copies of Discharge Monitoring Reports, and a copy of this MPDES permit must be maintained on site during the duration of activity at the permitted location.

I. Twenty-four Hour Notice of Noncompliance Reporting

1. The permittee shall report any serious incidents of noncompliance 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;

   b. Any unanticipated bypass which exceeds any effluent limitation in the permit (See Part III.G of this permit, "Bypass of Treatment Facilities"); or

   c. Any upset which exceeds any effluent limitation in the permit (see Part III.H of this permit, "Upset Conditions").

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, (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 or the Director, or an authorized representative thereof, upon the presentation of credentials and other documents as may be required by law, to:

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 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 or the Regional Administrator 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 $10,000 per day of such violation. Any person who willfully or negligently violates permit conditions of the Act is subject to a fine of not more than $50,000 per day of violation, or by imprisonment for not more than 2 years, or both, for subsequent convictions. MCA 75-5-611(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 permit conditions on Part III.G of this permit, "Bypass of Treatment Facilities" and Part III.H of this permit, "Upset Conditions", 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.

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, sludges, 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 condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement 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.

H. Upset Conditions

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part III.H.2 of this permit are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review (i.e. Permittees will have the opportunity for a judicial determination on any claim of upset only in an enforcement action brought for noncompliance with technology-based permit effluent limitations).

2. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

   a. An upset occurred and that the permittee can identify the cause(s) of the upset;

   b. The permitted facility was at the time being properly operated;

   c. The permittee submitted notice of the upset as required under Part II.I of this permit, "Twenty-four Hour Notice of Noncompliance Reporting"; and

   d. The permittee complied with any remedial measures required under Part III.D of this permit, "Duty to Mitigate".

3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

I. Toxic Pollutants

The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

J. Changes in Discharge of Toxic Substances

Notification shall be provided to the Department as soon as the permittee knows of, or has reason to believe:

1. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

   a. One hundred micrograms per liter (100 µg/L);

   b. Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for

2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;

c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or

d. The level established by the Department in accordance with 40 CFR 122.44(f).

2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

a. Five hundred micrograms per liter (500 µg/L);

b. One milligram per liter (1 mg/L) for antimony;

c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or

d. The level established by the Department in accordance with 40 CFR 122.44(f).

IV. GENERAL REQUIREMENTS

A. Planned Changes

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 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.

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 modified, revoked 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.

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 or the EPA 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;

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 specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (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 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 that $25,000 per violation, or by imprisonment for not more than six months per violation, or by both.

I. Availability of Reports

Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. As required by the Clean Water Act, permit applications, permits and effluent data shall not be considered confidential.

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 or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

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 an 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 an additional fee assessment computed at the rate 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:

1. 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.

2. Water Quality Standards are Exceeded: If it is found that water quality standards or trigger values in the receiving stream are exceeded either for parameters included in the permit or others, the department may modify the effluent limits or water management plan.

3. TMDL or Wasteload Allocation: TMDL requirements or a wasteload allocation is developed and approved by the Department and/or EPA for incorporation in this permit.

4. Water Quality Management Plan: A revision to the current water quality management plan is approved and adopted which calls for different effluent limitations than contained in this permit.

5. Toxic Pollutants: A toxic standard or prohibition is established under Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit.

6. Toxicity Limitation: Change in the whole effluent protocol, or any other conditions related to the control of toxicants have taken place, or if one or more of the following events have occurred:

a. Toxicity was detected late in the life of the permit near or past the deadline for compliance.

b. The TIE/TRE results indicated that compliance with the toxic limits will require an implementation schedule past the date for compliance and the permit issuing authority agrees with the conclusion.

c. The TIE/TRE results indicated that the toxicant(s) represent pollutant(s) that may be controlled with specific numerical limits, and the permit issuing authority agrees that numerical controls are the most appropriate course of action.

d. Following the implementation of numerical controls on toxicants, the permit issuing authority agreed that a modified whole effluent protocol is needed to compensate for those toxicants that are controlled numerically.

e. The TIE/TRE revealed other unique conditions or characteristics which, in the opinion of the permit issuing authority, justify the incorporation of unanticipated special conditions in the permit.

V. DEFINITIONS

1. **"30-day (and monthly) average,"** other than for *e.coli* bacteria, means the arithmetic average of all samples collected during a consecutive 30-day period or calendar month, whichever is applicable. Geometric means shall be calculated for *e.coli* bacteria. The calendar month shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms.

2. **"7-day (and weekly) average,"** other than for *e.coli* bacteria, means the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. Geometric means shall be calculated for *e.coli* bacteria. The 7-day averages are applicable only to those effluent characteristics for which there are 7-day average effluent limitations. The calendar week which begins on Sunday and ends on Saturday, shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms. Weekly averages shall be calculated for all calendar weeks in the month that has at least four days. For example, if a calendar week overlaps two months, the weekly average is calculated only in the month that contains four or more days of that week.

3. **"Acute Toxicity"** means when 50 percent or more mortality is observed for either species (See Part I.C of this permit.) at any effluent concentration. Mortality in the control must simultaneously be 20 percent or less for the effluent results to be considered valid.

4. **"Annual Average Load"** means the arithmetic mean of all 30-day or monthly average loads reported during the calendar year for a monitored parameter.

5. **"Arithmetic Mean"** or **"Arithmetic Average"** for any set of related values means the summation of the individual values divided by the number of individual values.

6. **"BOD_5"** means the five-day measure of pollutant parameter biochemical oxygen demand.

7. **"Bypass"** means the intentional diversion of waste streams from any portion of a treatment facility.

8. **"$CBOD_5$"** means the five-day measure of pollutant parameter carbonaceous biochemical oxygen demand.

9. **"Chronic Toxicity"** means when the survival, growth, or reproduction, as applicable, for either test species, at the effluent dilution(s) designated in this permit (see Part I.C.), is significantly less (at the 95 percent confidence level) than that observed for the control specimens.

10. **"Composite samples"** means a sample composed of four or more discrete aliquots (samples). The aggregate sample will reflect the average quality of the water or wastewater in the compositing or sample period. Composite sample may

be composed of constant volume aliquots collected at regular intervals (simple composite) or flow proportioned.

11. **"Daily Maximum Limit"** means the maximum allowable discharge of a pollutant during a calendar day. Expressed as units of mass, the daily discharge is cumulative mass discharged over the course of the day. Expressed as a concentration, it is the arithmetic average of all measurements taken that day.

12. **"Department"** means the Montana Department of Environmental Quality (DEQ).

13. **"Director"** means the Director of the United States Environmental Protection Agency's Water Management Division.

14. **"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.

15. **"EPA"** means the United States Environmental Protection Agency.

16. **"Grab"** sample, for monitoring requirements, means a single "dip and take" sample collected at a representative point in the discharge stream.

17. **"Instantaneous"** measurement, for monitoring requirements, means a single reading, observation, or measurement.

18. **"Load limits"** are mass-based discharge limits expressed in units such as lbs/day.

19. **"Minimum Level"** (ML) of quantitation means the lowest level at which the entire analytical system gives a recognizable signal and acceptable calibration point for the analyte, as determined by the procedure set forth at 40 CFR 136. In most cases the ML is equivalent to the Required Reporting Value (RRV) unless other wise specified in the permit. (ARM 17.30.702(22))

20. **"Mixing zone"** means a limited area of a surface water body or aquifer where initial dilution of a discharge takes place and where water quality changes may occur. Also recognized as an area where certain water quality standards may be exceeded.

21. **"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 limits established under or determined from a permit or approval issued by the Department prior to April 29, 1993.

22. **"Regional Administrator"** means the administrator of the EPA Region with Jurisdiction over federal water pollution control activities in the State of Montana.

23. **"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.

24. **"Sewage Sludge"** means any solid, semi-solid or liquid residue that contains materials removed from domestic sewage during treatment. Sewage sludge includes, but is not limited to, primary and secondary solids and sewage sludge products.

25. **"TIE"** means a toxicity identification evaluation.

26. **"TRE"** means a toxicity reduction evaluation.

27. **"TMDL"** means the total maximum daily load limitation of a parameter, representing the estimated assimilative capacity for a water body before other designated uses are adversely affected. Mathematically, it is the sum of wasteload allocations for point sources, load allocations for non-point and natural background sources, and a margin of safety.

28. **"TSS"** means the parameter total suspended solids.

29. **"Upset"** means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.