

**MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**WATER QUALITY DIVISION**  
**WATER PROTECTION BUREAU**  
**MONTANA POLLUTANT DISCHARGE ELIMINATION SYSTEM**

**Fact Sheet**

**General Permit for Domestic Sewage Treatment Lagoons  
Batch and Non-Discharging Facilities**

FACILITY: Minor Publicly- and Privately- Owned Treatment Works

PERMIT NUMBER: MTG580000

LOCATION: Statewide, except for *Indian Country*

CONTACT: Applicant

RECEIVING WATER: Statewide

I. **Status of Permit**

This permitting action is the renewal of the Montana Pollutant Discharge Elimination System (MPDES) *General Permit for Domestic Sewage Treatment Lagoons – Batch Dischargers* (2023 LGP). The LGP has been renewed five times since it was first issued in March 1983. The most recent permit renewal was issued on October 4, 2017, became effective on January 1, 2018, and will expire on December 31, 2022. This most recent permit renewal will be referred to as the 2018 LGP.

DEQ proposes the following changes with this renewal:

1. MTG580000 coverage will divide into two wastewater treatment lagoon subcategories:
  - *Batch Dischargers* – those facilities that are control and release, and discharge for up to nine months per year, and
  - *Non-Dischargers* – those facilities that do not anticipate discharge to occur but still have the potential to discharge (e.g. upset or bypass discharges). Specific effluent limits, monitoring, and reporting requirements were added for non-discharging facilities.
2. Total Residual Chlorine (TRC) limits and monitoring were added.
3. Special Conditions changes –
  - Sludge handling requirements, including a five-year report, were added.
  - Land application monitoring and recordkeeping requirements expanded.

## II. Description of Facilities

### A. *Description of Facilities*

Montana facilities eligible for coverage under the 2018 *General Permit for Domestic Sewage Treatment Lagoons – Batch Dischargers* (MTG580000) are wastewater lagoon systems discharging to state surface waters for no more than nine months per year with an average daily design flow less than one million gallons per day (mgd). Continuous dischargers are authorized under a separate General Permit, MTG581000, and are not affected by this permitting action.

DEQ made small modifications to the eligibility requirements (see Part III.C and D). The facilities covered under this permit renewal are minor domestic sewage treatment lagoons that are either Publicly Owned Treatment Works (POTWs) or privately owned treatment works where the wastewater and type of treatment have been determined to be similar to a POTW.

However, this renewal will divide permittees into two categories:

1. **Batch dischargers** - facilities discharging up to nine months per year. Discharge remains prohibited during the nutrient growing season, typically July 1<sup>st</sup> through September 30<sup>th</sup>. There were 13 batch discharging facilities authorized under the 2018 LGP that met this criterion.
2. **Non-dischargers** - facilities designed for total retention (evaporation or land application) that do not anticipate discharge but have the potential to discharge (e.g. upset or bypass discharges). The authorization for these facilities will not allow discharge under typical operating conditions. Discharge will only be allowed in accordance with the upset or bypass provisions of this LGP. There were eight (8) facilities authorized under the 2018 LGP that reported no discharge and may qualify for this category.

### Land Application

Facilities that land-apply treated effluent are not required to obtain MPDES permit coverage *unless* the facility is discharging to state surface water. MPDES permitting is not required for land application alone since DEQ does not consider the use of treated effluent by a properly designed and operated land application system to be a discharge (i.e., in accordance with Circular DEQ-2). To ensure optimal land application conditions, facilities that have an MPDES permit must also comply with the land application requirements under the Special Conditions section in this 2023 LGP.

*B. Effluent limits*

The 2018 LGP for batch dischargers included the following numeric limits (**Table 1**).

**Table 1: Numeric Effluent Limits in the 2018 LGP – Batch Dischargers (MTG580000)**

Technology-Based Effluent Limit Buckets						
Parameter	Units		Monthly Average	Weekly Average	% Removal	
5-day Biochemical Oxygen Demand <sup>(1,2)</sup>	1. NSS	mg/L	30	45	85%	
	2. TES	mg/L	45	65	65%	
	lb/day		<i>Equation 1</i>	<i>Equation 1</i>	--	
Total suspended solids <sup>(2)</sup>	A. NSS	mg/L	30	45	--	
	B. TES		45	65 <sup>(3)</sup>	--	
	C. ASR		100	135	--	
	lb/day		<i>Equation 1</i>	<i>Equation 1</i>	--	
pH	s.u.		6.0 – 9.0		--	
Water Quality-Based Effluent Limits						
Parameter	Units		Monthly Average	Weekly Average	Maximum Daily	
<i>E. coli</i> bacteria – summer <sup>(4,5)</sup>	# org/100 mL		126	252	--	
<i>E. coli</i> bacteria – winter <sup>(4,5)</sup>	# org/100 mL		630	1,260	--	
Oil & Grease	mg/L		--	--	10 <sup>(6)</sup>	
Other Parameters (WLA and other previous permit limits)	(7)		(7)	(7)	(7)	

Footnotes:

- (1) Carbonaceous biochemical oxygen demand (CBOD<sub>5</sub>) in lieu of 5-day Biochemical Oxygen Demand (BOD<sub>5</sub>) permitted upon request of the permittee.
- (2) Facilities' limits were classified under one of the following categories based on the 95<sup>th</sup> percentile concentrations during the period of record:
  - (A) National Secondary Standards (NSS),
  - (B) Treatment Equivalent to Secondary (TES), or
  - (C) Alternate State Requirements (ASR), for TSS only.
 TSS mass-based limits a substitute for % removal.
- (3) A typographical error in the 2018 LGP Table 2 incorrectly listed the TSS average weekly limit as 60 mg/L.
- (4) *Escherichia coli* (*E. coli*) bacteria. Reporting in #organisms per 100 mL (equivalent to either colony forming units (cfu) per 100 mL or most probable number (mpn) per 100 mL). Report the geometric mean if more than one sample is collected during the reporting period.
- (5) Summer April 1<sup>st</sup> to October 31<sup>st</sup>, Winter November 1<sup>st</sup> to March 31<sup>st</sup>.
- (6) If visual monitoring indicates the presence of oil & grease, a grab sample must be submitted for analysis and discharge must cease if the concentration is found to be > 10 mg/L.
- (7) Any facility with an existing Wasteload Allocation or effluent limit was required to continue to meet those limits.

C. Summary of Facility Discharges

Of the 21 facilities permitted under the 2018 LGP, 13 facilities had at least one month of discharge (62% of facilities).

**Table 2** summarizes the 5-day Biochemical Oxygen Demand (BOD<sub>5</sub>) and Total Suspended Solids (TSS) effluent concentrations for those 13 discharging facilities:

<b>Table 2: Summary of Effluent Concentrations for the 13 Batch Dischargers with Discharge (January 2018 – December 2021)</b>				
	# Months/Year	BOD <sub>5</sub> mg/L	BOD <sub>5</sub> % removal	TSS mg/L
Average	< 2	5 – 72 (28 avg.)	65 - 96 (83 avg.)	12-133 (47 avg.)
95 <sup>th</sup> Percentile	--	10 – 156 (55 avg.)	--	24 – 306 (85 avg.)
Maximum	7	10 – 300 (80 avg.)	65 <sup>(1)</sup>	33 – 591 (136 avg.)

Footnote:  
(1) The minimum percent removal.

The calculated 95<sup>th</sup> percentile effluent BOD<sub>5</sub> concentrations for eight (8) of the 13 batch discharging facilities could not meet the BOD<sub>5</sub> National Secondary Standard of 30 mg/L for the Period of Record (POR). See Part IV.A.1 of this Fact Sheet for further discussion on BOD<sub>5</sub>.

The calculated 95<sup>th</sup> percentile effluent TSS concentrations for 12 of the 13 batch discharging facilities could not meet the TSS National Secondary Standard of 30 mg/L for the POR. See Part IV.A.2 of this Fact Sheet for further discussion on TSS.

Review of the NetDMR reports for discharging facilities shows that overall *E.coli* bacteria counts are high. The maximum counts ranged up to 340,000 organisms/100 milliliters (mL). See Part V.E.1.c. for additional discussion.

### III. Permit Coverage

#### A. *Coverage Area*

This LGP for batch and non-discharging domestic sewage treatment lagoons applies to all areas of the State of Montana, except for within the boundaries of Indian Lands, National Parks, and excluded waterbodies listed in Part III.D.

#### B. *Regulatory Authority*

Montana prohibits the discharge of sewage, industrial wastes, or other wastes into state waters without a current permit from DEQ. The authority for DEQ to issue MPDES permits is contained in 75-5-101, Montana Code Annotated (MCA) *et seq.*, with implementing regulations in Administrative Rules of Montana (ARM) 17.30 Subchapters 12 and 13.

#### C. *Sources Eligible for Coverage*

To be eligible for authorization under this renewal (2023 LGP), the domestic sewage treatment lagoon must:

- Be designed with an average daily flow less than 1.0 mgd,
- Discharge effluent either as batch/periodic discharge or be non-discharging,
- Have no discharge during the three-month nutrient growing season appropriate for the ecoregion, typically between July 1<sup>st</sup> and September 30<sup>th</sup>, and
- Not be ineligible under Part III.D.

#### D. *Sources Ineligible for Coverage*

1. DEQ may deny a general permit application for any of the following:
  - a. The specific source applying for authorization appears unable to comply with:
    - effluent limitations or other terms and conditions of the permit;
    - water quality standards; or
    - prohibition of any discharges to which the EPA regional administrator has objected to in writing.
  - b. The discharge is different in degree or nature from discharges reasonably expected from sources or activities within the category described in the LGP.
  - c. An MPDES permit or authorization for the same operation has previously been denied or revoked.
  - d. The discharge to be authorized under a general MPDES permit is also included within an application or is subject to review under the Major Facility Siting Act.
  - e. The point source will be located in an area of unique ecological or recreational significance. Such determination must be based upon considerations of Montana stream classifications, impacts on fishery resources, local conditions at proposed discharge sites, and designations of wilderness areas under 16 USC 1132 or of wild and scenic rivers under 16 USC 1274.

2. In addition, the following sources are excluded from coverage from the 2023 LGP:
  - a. A facility discharging to Outstanding Resource Waters, A-1 or A-Closed classified waters, or lakes or reservoirs.
  - b. A facility that is a “new or increased source” that discharges to “high quality water.” However, new sources to ephemeral waterbodies, where the discharge will not reach intermittent or perennial waterbodies, may apply for authorization under this General Permit.
  - c. A facility with a pretreatment program or receiving wastewater from a categorical industrial user(s) (CIU) or significant industrial users (SIU) (see 40 CFR 403.3). Specifically, a facility with any of the following is not eligible under the 2023 LGP:
    - Having or required to have a pretreatment program;
    - Receiving wastewater from a CIU, which is any industrial user subject to categorical pretreatment standards under 40 CFR 403.6 and 40 CFR chapter I, subchapter N. This includes industries such as, but not limited to, Transportation Equipment Cleaning and Dairy Products Processing; or
    - Receiving wastewater from a SIU, which is any industrial user that discharges an average of 0.025 mgd or more of process wastewater to the facility (with certain exclusions), contributes a process waste stream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant, or is designated as an SIU by the control authority.
  - d. A facility covered under an individual MPDES permit with site-specific WQBELs cannot be covered unless the permit limits are from an approved Wasteload Allocation (WLA) in a Total Maximum Daily Load (TMDL) or are equivalent to the water quality standards in Department Circular DEQ-7.

*E. Requirements for Continuing Authorization under the GP*

All authorizations under the 2018 LGP expire on December 31, 2022, along with the expiration of the LGP. For coverage under the 2023 LGP, permittees must submit a complete renewal Notice of Intent package which includes:

- A complete hardcopy Notice of Intent form (NOI-580) (see **Attachment A**) or electronic FACTS submittal,
- A copy of the consultation letter from the Montana Sage Grouse Habitat Conservation Program (if applicable), and
- Renewal application fee of \$800 per outfall

DEQ must receive the complete application package any time after the renewed permit is finalized but before **October 31, 2022**. Submittal may be either electronic via FACTS, using the electronic NOI questionnaire with a CROMMERS-compliant signature from the Signatory Authority (an upload of a signed NOI-580 PDF is not sufficient) or by hardcopy at the following address:

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

The renewed coverage under the 2023 LGP is effective on or after January 1, 2023, upon receiving an Authorization Letter from DEQ.

*F. Requirements for New Authorizations under the General Permit*

A new discharger to an ephemeral waterbody may request coverage under the 2023 GP. New dischargers to waters other than ephemeral are not eligible for coverage since they will need to be evaluated for nondegradation through an individual permit process. Facilities designed to be non-discharging are also eligible for coverage under the 2023 LGP, regardless of whether the potential receiving waterbody is ephemeral.

If a new discharger to an ephemeral waterbody, or a new non-discharging facility that could potentially have an unintended release to any waterbody, desires coverage under the 2023 LGP, they must submit a complete NOI package, including the NOI fee. DEQ will make a completeness determination within 30 days of receipt of a facility's NOI submittal package and will notify the facility if their NOI package is incomplete.

Existing facilities with coverage under an Individual MPDES permit may obtain coverage under the 2023 LGP by either submitting a complete NOI-580 package as outlined above, or by requesting that their individual renewal application Form 2A and fees be transferred to this GP. If the newly authorized facility previously held an individual permit, DEQ will terminate the facility's individual permit upon a facility's coverage under this GP.

*G. Termination of General Permit Coverage*

Permittees under the 2023 LGP may terminate coverage during the effective permit term. The permittee must submit a Notice of Termination (NOT) form to DEQ indicating the reason why permit coverage is no longer required. The permittee remains responsible for all applicable fees including annual fees until DEQ processes and notifies the permittee that permit coverage is terminated. Failure to submit a termination request shall result in accrual of annual fees.

*Replace General Permit coverage with an Individual MPDES permit*

Permittees under the 2023 LGP may apply for coverage under an Individual MPDES permit. A facility remains covered under the General Permit until the effective date of the Individual MPDES Permit. Authorization under the General Permit will terminate on the effective date of the Individual MPDES permit.

*H. Transfer of Coverage*

To transfer permit coverage under the General Permit to a different entity, the Permittee must submit a complete Permit Transfer Notification form provided by DEQ and a \$500 permit transfer fee. The original Permittee is responsible for all terms and conditions of the permit until DEQ provides authorization to the new Permittee.

*I. Modifications*

If the Permittee wishes to modify their permit authorization, for instance to change from a discharging to non-discharging facility, they must submit a complete NOI package including:

- A complete hardcopy Notice of Intent form (NOI-580),
- Renewal application fee of \$800 per outfall, and
- Any additional information regarding, or effected by, the modification request.

Facilities eligible for the modification will be issued a letter of authorization to the owner or operator. If the facility does not qualify for coverage, DEQ will notify the applicant.

#### IV. Technology-based Effluent Limitations

##### A. *Concentration and Mass-based Limits*

Technology-based Effluent Limits (TBELs) for POTWs are set forth in 40 CFR 133 -- minimum treatment requirements for secondary treatment or equivalent. Secondary treatment is defined in terms of effluent quality as typically measured by BOD<sub>5</sub>, TSS, percent removal of BOD<sub>5</sub> and TSS, and pH. Domestic sewage treatment lagoons may be regulated by one of three levels of treatment contained in 40 CFR 133, which DEQ identifies as follows:

- National Secondary Standards (NSS) – default minimum level of effluent quality attainable by secondary treatment [40 CFR 133.102];
- Treatment Equivalent-to-Secondary (TES) – minimum level of effluent quality attainable by facilities eligible for treatment equivalent to secondary treatment (a waste stabilization pond that achieves a 30-day average of at least 65% removal of BOD<sub>5</sub> and the facility's discharge has been shown to meet the effluent concentration consistently achievable through proper operation and maintenance (O&M)) [40 CFR 133.105]; or
- Alternative State Requirements (ASR) – further adjusted minimum level of TSS for wastewater treatment that may be allowed when the principal process for secondary treatment is a waste stabilization pond system that achieves a 30-day average concentration of 45 mg/L BOD<sub>5</sub> or less [40 CFR 133.103(c)].

##### 1. **5-day Biochemical Oxygen Demand Concentration-based Limits**

The BOD<sub>5</sub> effluent concentration *consistently achievable* (95<sup>th</sup> percentile) between 2018 – 2021 by five (5) of the 13 discharging facilities met NSS and the remaining eight (8) exceeded NSS. The BOD<sub>5</sub> effluent limits are listed below.

###### a. **National Secondary Standards**

NSS will continue to be the baseline (default) requirement for BOD<sub>5</sub>:

- 30 mg/L monthly average,
- 45 mg/L weekly average, and
- 85% removal (see Part IV.E for equation).

###### b. **Treatment Equivalent to Secondary**

For this permit renewal, DEQ will authorize a facility's BOD<sub>5</sub> limits under NSS unless it meets all the following criteria for TES, as specified under 40 CFR 133.101(g):

1. the principal process is a trickling filter or waste stabilization pond (includes both facultative and aerated lagoons),
2. the facility certifies that they have applied good operation & maintenance (O&M),
3. the monthly average 95<sup>th</sup> percentile for the last two to five years is greater than 30 mg/L BOD<sub>5</sub> (except for values attributable to upsets, bypasses, and operational errors or other unusual conditions) and/or the weekly average for the same period is greater than 45 mg/L, and
4. the facility provides significant biological treatment that achieves a 30-day average of at least 65% removal of BOD<sub>5</sub>. The equation for percent removal is shown in Part IV.E of this Fact Sheet.

Facilities subject to TES have the following BOD<sub>5</sub> effluent limits:

- 45 mg/L monthly average,
- 65 mg/L weekly average, and
- 65% removal (see Part IV.E for equation).

**c. Carbonaceous Biochemical Oxygen Demand**

The total biological oxygen demand of a wastewater is composed of two components – a carbonaceous oxygen demand and a nitrogenous oxygen demand. In lieu of BOD<sub>5</sub> limits, a permittee may request 5-day carbonaceous biochemical oxygen demand (CBOD<sub>5</sub>) limits, as follows:

- NSS: 25 mg/L monthly average and 40 mg/L weekly average CBOD<sub>5</sub> [40 CFR 133.102(a)(4)].
- TES: 40 mg/L monthly average and 60 mg/L weekly average CBOD<sub>5</sub> [40 CFR 133.105(e)]. TES will be authorized only if the facility meets the same requirements as BOD<sub>5</sub> (See Part IV.1.b.).

**2. Total Suspended Solids Concentration-based Limits**

The TSS effluent concentration *consistently achievable* (95<sup>th</sup> percentile) between 2018 – 2021 by one of the 13 discharging facilities met NSS, four met TES, five met ASR, and three exceeded ASR. The TSS effluent limits are listed below.

**a. National Secondary Standards**

The baseline (default) TSS requirement for batch dischargers is NSS effluent limits of:

- 30 mg/L monthly average,
- 45 mg/L weekly average, and
- Monthly average mass limit as a substitute for percent removal (see equation in Part IV.E of this Fact Sheet.)

**b. Treatment Equivalent to Secondary**

If a facility cannot meet NSS for TSS, they may qualify for TES. Facilities subject to TES have the following TSS effluent limits (40 CFR 133.105(b)):

- 45 mg/L monthly average,
- 65 mg/L weekly average, and
- Average monthly mass limit as a substitute for percent removal (see equation in Part IV.E of this Fact Sheet.)

DEQ has determined that to qualify for TES, a facility must meet all of the following as specified under 40 CFR 133.101(g):

1. the principal process is a trickling filter or waste stabilization pond (includes both facultative and aerated lagoons),
2. the facility certifies that they have applied good operation & maintenance (O&M),
3. the monthly average 95<sup>th</sup> percentile for the last two to five years is greater than 30 mg/L TSS (except for values attributable to upsets, bypasses, and operational errors

- or other unusual conditions) and/or the weekly average for the same period is greater than 45 mg/L, and
4. the facility provides significant biological treatment that achieves a 30-day average of at least 65% removal of BOD<sub>5</sub>.

**c. Alternate State Requirements**

If a facility cannot meet TES for TSS, they may qualify for ASR. The Montana-specific ASR was published in the Federal Register on September 20, 1984 (49 FR 37005). Facilities that are eligible for ASR have the following TSS effluent limits:

- 100 mg/L monthly average,
- 135 mg/L weekly average, and
- Average monthly mass limit as a substitute for percent removal (see equation in Part IV.E of this Fact Sheet.)

DEQ has determined that to qualify for ASR, a facility must meet all of the following:

1. the principal process is a waste stabilization pond,
2. the facility has applied good operation & maintenance (O&M), and
3. the monthly average 95<sup>th</sup> percentile for the last two to five years is greater than 45 mg/L TSS (except for values attributable to upsets, bypasses, and operational errors or other unusual conditions) and/or the weekly average for the same period is greater than 65 mg/L.

**3. Mass-based Effluent Limits (BOD<sub>5</sub>/CBOD<sub>5</sub> and TSS)**

Facilities are required to meet both concentration-based and mass-based limits. Both monthly and weekly average mass-based (load) limits for BOD<sub>5</sub> (or CBOD<sub>5</sub>) and TSS will be calculated individually for each facility based on a facility's average daily design flow and the monthly and weekly average concentration limits determined as described above. The equation for calculating mass-based load limits is shown in Part IV.E of this Fact Sheet.

The monthly average mass-based limits for BOD<sub>5</sub> and TSS will be compared against the nondegradation allocated loads and the most stringent for each will be included as the monthly average permit limit.

**B. pH**

Effluent pH shall remain within the range of 6.0 – 9.0 s.u. There is no change for this TBEL.

**C. Nondegradation Allocated Loads**

New or increased sources as defined in Montana's Nondegradation Policy are not eligible for coverage under the 2023 LGP. Therefore, a new or increased source must apply and obtain coverage under an individual MPDES permit.

However, new sources to ephemeral waterbodies, where the discharge will not reach intermittent or perennial waterbodies, may apply for authorization under this General Permit. New facilities designed to be non-discharging are also eligible for coverage under the 2023 LGP, regardless of the potential receiving waterbody classification (ephemeral, intermittent, or perennial).

Existing sources that are in compliance with the conditions of their permit and do not exceed the limits established in the permit or determined from a permit previously issued by DEQ are not considered new or increased sources. For this permit renewal, DEQ will maintain the most stringent of the monthly average BOD<sub>5</sub> and TSS load allocations since April 29, 1993. If a municipality has seen an increase in either their average design flow or monthly average concentration limit for either BOD<sub>5</sub> or TSS since 1993, resulting in increase in their calculated monthly average load, the more stringent average monthly load will be maintained.

*D. Proposed Technology Based Effluent Limits*

Discharging Facilities

TBELs are required to be met after treatment, prior to any dilution with groundwater or surface water. Compliance monitoring must be conducted at the end-of-pipe, prior to release into any channel or receiving water.

DEQ will assign one of the following TBEL subcategories to each discharging facility as part of their renewal authorization letter, based on the information provided as part of the renewal:

Group A –National Secondary Standards for TSS (**Table 3**)

Group B –Treatment Equivalent to Secondary for TSS (**Table 4**)

Group C –Alternate State Requirements for TSS (**Table 5**)

Non-Discharging Facilities

No Discharge facilities will not have TBELs applied since the facility is not designed to discharge during normal operating conditions.

**Table 3. Group A- Total Suspended Solids – National Secondary Standards<sup>(1)</sup>**

Parameter	Units	Average Monthly Limit	Average Weekly Limit	Rationale		
<b>Choices for 5-day Biochemical Oxygen Demand (BOD<sub>5</sub>)<sup>(2)</sup></b>						
A.1. BOD <sub>5</sub> - National Secondary Standards	mg/L	30	45	40 CFR 133.102(a)		
	lbs/day	(3)	(3)			
	% removal	85 <sup>(4)</sup>	NA			
A.2. BOD <sub>5</sub> - Treatment Equivalent to Secondary	mg/L	45	65	40 CFR 133.105(a)		
	lbs/day	(3)	(3)			
	% removal	65 <sup>(4)</sup>	NA			
<b>Total Suspended Solids</b>						
Total Suspended Solids	mg/L	30	45	40 CFR 133.102(b)		
	lbs/day	(3)	(3)			
	% removal	NA <sup>(4)</sup>	NA			
pH <sup>(5)</sup>	s.u.	6.0-9.0 (instantaneous)		40 CFR 133.102(c)		
Footnotes:						
1. See Definitions section at end of permit for explanation of terms.						
2. If requested by the permittee as part of the renewal application process or a modification request and approved by DEQ, 5-day carbonaceous biochemical oxygen demand (CBOD <sub>5</sub> ) limits of 25 mg/L 30-day average and 40 mg/L 7-day average (NSS) or 40 mg/L 30-day average and 60 mg/L 7-day average (TES) may replace BOD <sub>5</sub> limits.						
3. Mass-based limits calculations shown below in Part IV.E.						
4. BOD <sub>5</sub> percent removal calculation shown below in Part IV.E. TSS mass limits are a substitute for TSS percent removal.						
5. Effluent pH shall remain between 6.0 and 9.0 s.u. For compliance purposes, any single analysis and/or measurement beyond this limitation shall be considered a violation of the conditions of this permit.						

**Table 4. Group B - Total Suspended Solids *Treatment Equivalent to Secondary*<sup>(1)</sup>**

Parameter	Units	Average Monthly Limit	Average Weekly Limit	Rationale		
<b>Choices for 5-day Biochemical Oxygen Demand (BOD<sub>5</sub>)<sup>(2)</sup></b>						
B.1. BOD <sub>5</sub> - National Secondary Standards	mg/L	30	45	40 CFR 133.102(a)		
	lbs/day	(3)	(3)			
	% removal	85 <sup>(4)</sup>	NA			
B.2. BOD <sub>5</sub> - Treatment Equivalent to Secondary	mg/L	45	65	40 CFR 133.105(a)		
	lbs/day	(3)	(3)			
	% removal	65 <sup>(4)</sup>	NA			
<b>Total Suspended Solids (TSS)</b>						
Total Suspended Solids	mg/L	45	65	40 CFR 133.105(b)		
	lbs/day	(3)	(3)			
	% removal	NA <sup>(4)</sup>	NA			
pH <sup>(5)</sup>	s.u.	6.0-9.0 (instantaneous)		40 CFR 133.102(c)		
Footnotes:						
1. See Definitions section at end of permit for explanation of terms.						
2. If requested by the permittee as part of the renewal application process or a modification request and approved by DEQ, 5-day carbonaceous biochemical oxygen demand (CBOD <sub>5</sub> ) limits of 25 mg/L 30-day average and 40 mg/L 7-day average (NSS) or 40 mg/L 30-day average and 60 mg/L 7-day average (TES) may replace BOD <sub>5</sub> limits.						
3. Mass-based limits calculations shown below in Part IV.E.						
4. BOD <sub>5</sub> percent removal calculation shown below in Part IV.E. TSS mass limits are a substitute for TSS percent removal.						
5. Effluent pH shall remain between 6.0 and 9.0 s.u. For compliance purposes, any single analysis and/or measurement beyond this limitation shall be considered a violation of the conditions of this permit.						

<b>Table 5. Group C - Total Suspended Solids <i>Alternate State Requirements</i><sup>(1)</sup></b>						
Parameter	Units	Average Monthly Limit	Average Weekly Limit	Rationale		
<b>Choices for 5-day Biochemical Oxygen Demand (BOD<sub>5</sub>)<sup>(2)</sup></b>						
C.1. BOD <sub>5</sub> - National Secondary Standards	mg/L	30	45	40 CFR 133.102(a)		
	lbs/day	(3)	(3)			
	% removal	85 <sup>(4)</sup>	NA			
C.2. BOD <sub>5</sub> - Treatment Equivalent to Secondary	mg/L	45	65	40 CFR 133.105(a)		
	lbs/day	(3)	(3)			
	% removal	65 <sup>(4)</sup>	NA			
<b>Total Suspended Solids (TSS)</b>						
Total Suspended Solids	mg/L	100	135	40 CFR 133.103(c)		
	lbs/day	(3)	(3)			
	% removal	NA <sup>(4)</sup>	NA			
pH <sup>(5)</sup>	s.u.	6.0-9.0 (instantaneous)		40 CFR 133.102(c)		
Footnotes:						
1. See Definitions section at end of permit for explanation of terms.						
2. If requested by the permittee as part of the renewal application process or a modification request and approved by DEQ, 5-day carbonaceous biochemical oxygen demand (CBOD <sub>5</sub> ) limits of 25 mg/L 30-day average and 40 mg/L 7-day average (NSS) or 40 mg/L 30-day average and 60 mg/L 7-day average (TES) may replace BOD <sub>5</sub> limits.						
3. Mass-based limits calculations shown below in Part IV.E.						
4. Percent BOD <sub>5</sub> percent removal calculation shown below in Part IV.E. TSS mass limits are a substitute for TSS percent removal.						
5. Effluent pH shall remain between 6.0 and 9.0 s.u. For compliance purposes, any single analysis and/or measurement beyond this limitation shall be considered a violation of the conditions of this permit.						

## E. TBEL Equations

The following two equations – mass-based load and percent removal calculations -- are included to clarify how DEQ calculates load limits and dischargers demonstrate compliance.

### 1. Mass-based Load Limits Equation

a. DEQ uses the following equations to develop a facility's mass-based load limits:

#### Monthly average load limit (lb/day)

= avg daily design flow (mgd) x monthly avg concentration limit (mg/L) x 8.34 conversion

#### Weekly average load limit (lb/day)

= avg daily design flow (mgd) x weekly avg concentration limit (mg/L) x 8.34 conversion

b. Facilities use the same equations to calculate their actual loads to demonstrate compliance:

#### Monthly load (lb/day) – average of all loading values calculated within the month:

= Monthly average [actual daily discharge (mgd) x actual daily concentration (mg/L) x 8.34]

#### Weekly load (lb/day) – highest average weekly loading value calculated within the month:

= Highest avg weekly [actual daily discharge (mgd) x actual daily concentration (mg/L) x 8.34]

## 2. Percent Removal Equation

The following equation is used for a facility to determine their percent removal for a given month:

$$\% \text{ Removal} = \frac{[\text{Influent Concentration}] - [\text{Effluent Concentration}]}{[\text{Influent Concentration}]} \times 100$$

Where:

*Influent Concentration* = monthly average influent concentration based on the analytical results of the reporting period.

*Effluent Concentration* = monthly average effluent concentration based on the analytical results of the reporting period.

V. Water Quality-Based Effluent Limits

A. *Scope and Authority*

Montana water quality standards require that no wastes may be discharged such that the waste either alone or in combination with other wastes will violate or can reasonably be expected to violate any standard. DEQ develops Water Quality-based Effluent Limits (WQBELs) when a discharge has the reasonable potential to exceed any state water quality standard and TBELs are not adequate to achieve water quality standards.

B. *Receiving Waters*

This 2023 LGP will cover facility discharges outside the boundaries of Indian Lands to any *state surface waters except Outstanding Resource Waters*, those classified as A-1 or A-Closed waters, or lakes or reservoirs (see Fact Sheet Part III.D.2).

Channels used solely for conveyance of wastewater discharges are considered part of the domestic lagoon system and are not regulated as state surface waters; therefore, compliance monitoring for any water-quality based effluent limits may be conducted at any location after treatment but prior to mixing with state surface water.

C. *Applicable Water Quality Standards*

1. **General Provisions.**

Applicable discharges to state surface waters are subject to the specific water quality standards in ARM 17.30.623 - .629, Department Circulars DEQ-7 (Numeric Water Quality Standards), and the general provisions of ARM 17.30.635 through .637. All dischargers must ensure that state waters are free from substances which will:

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

## 2. Total Maximum Daily Load

The 2020 Integrated Report list of impaired waterbodies includes both those waterbodies where beneficial uses are impaired by a pollutant (e.g., sediment, nutrients, metals, temperature) and waterbodies impaired by a non-pollutant (e.g., alteration in stream-side or littoral vegetative covers, low flow alterations). DEQ develops Total Maximum Daily Loads (TMDLs) for waterbodies with pollutant impairments. Wasteload Allocations (WLAs) that are assigned to point sources in the TMDL are incorporated into MPDES permits, consistent with the assumptions and requirements in the TMDL document.

DEQ reviewed the Clean Water Act Information Center (CWAIC) (available at <https://clean-water-act-information-center-mtdeq.hub.arcgis.com/>) to determine which waterbodies were impaired for a pollutant, and if there is an applicable TMDL and WLA. Findings included:

- The receiving waterbodies immediately (or shortly downstream) from 11 of the 21 facilities were listed as impaired for at least one pollutant, of which eight (8) had at least one pollutant with a municipal or unknown source.
- Facility waterbodies with applicable TMDLs:
  - **MTG580002-Drummond** (Clark Fork River VNRP, 1998 and Silver Bow Creek and Clark Fork Metals, 2014). This segment of the Clark Fork River has TN, TP, and chlorophyll-a standards effective from June 21<sup>st</sup> to September 21<sup>st</sup> [ARM 17.30.631(2)]. Although the 1998 VNRP includes monitoring requirements for Drummond, they are prohibited from discharging during the above nutrient growing season and therefore the nutrient monitoring requirement does not apply.
  - **MTG580003-Fairfield** (2004 TMDL). This TMDL required monitoring for Specific Conductance (SC)/ Total Dissolved Solids (TDS) as well as two selenium samples. The monitoring was required in the 2013 Authorization and was conducted. Monitoring was not continued in the 2018 Authorization. No SC, TDS, or selenium monitoring will be required in this permit renewal.
  - **MTG580011-Darby** (2011 Bitterroot River TMDL). This downstream TMDL included temperature monitoring requirements which Darby satisfied by 2017. No temperature monitoring will be required in this permit renewal.
  - **MTG580043-Ten Mile Creek Estates** (2006 Lake Helena TMDL). This TMDL identified Ten Mile Creek Estates' WWTF as a point source of nutrients due to leaking lagoons. The TMDL estimated 0.8 tons/ year TN and 0.1 tons/year TP and provided a goal for reductions resulting in loads of 0.6 tons/year TN and 0.1 ton/year TP. This analysis was conducted before the lagoon upgrade. The WWTF has been lined and discharges only during the non-nutrient growing season; there will be no additional permit requirements for this 2004 TMDL.

This segment of Prickly Pear Creek is identified as impaired for arsenic and lead in the 2004 TMDL, but there was no WLA developed for Ten Mile Creek Estates.

No permit limits or monitoring will be required due to TMDLs.

#### D. Mixing Zones

A mixing zone is an area where the effluent mixes with the receiving water and certain water quality standards may be exceeded [ARM 17.30 Subchapter 5 *et seq.*]. DEQ will not grant a mixing zone that will impair beneficial uses. When mixing zones are granted, they are on a parameter-by-parameter basis.

No mixing zones were granted for any of the authorized facilities as part of the 2018 GP and will not be granted as part of this renewal.

#### E. Basis for Water Quality Based Effluent Limits

DEQ develops a WQBEL for any pollutant of concern (POC) for which there is reasonable potential (RP) to cause or contribute to exceedances of instream numeric or narrative water quality standards. Pollutants and parameters are identified as POC for one or more of the following reasons:

- listed as a TBEL;
- identified as needing limits in the previous permit;
- identified as present in the effluent through monitoring or otherwise expected present in the discharge; or
- associated with a pollutant impairment (with or without a wasteload allocation [WLA]) in a Total Maximum Daily Load document.

DEQ evaluated pollutants of concern for the domestic sewage lagoon category in **Table 6**.

<b>Table 6. Identification of Pollutants of Concern</b>	
<b>Parameter</b>	<b>Basis for Pollutant of Concern Identification</b>
5-day Biochemical Oxygen Demand <sup>(1)</sup>	TBELs, previous permit
Total Suspended Solids	TBELs, previous permit
pH	TBELs
Oil & Grease	Previous permit, suspected present
<i>E. coli</i> bacteria	Previous permit, known present
Total Residual Chlorine	Possibly present
Ammonia, as N	Known present
Nitrate + Nitrite, as N	Known present
Total Nitrogen, Total Phosphorus	Known present
Other Parameters (WLA and other previous permit limits)	Previous permit
Footnotes:	
(1) Permittees may request 5-day carbonaceous biochemical oxygen demand (CBOD <sub>5</sub> ) in lieu of BOD <sub>5</sub> .	

## 1. Reasonable Potential (RP)

The following subsections discuss the basis for the RP analyses and WQBELs in this permit.

### a. TSS, CBOD<sub>5</sub>/BOD<sub>5</sub>, and pH –

Each facility regulated under the 2023 LGP will be required to meet TBELs which provide a significant reduction in solids and biological material through the BOD<sub>5</sub> (or CBOD<sub>5</sub> upon request by the facility) and TSS effluent limits (see Part IV). In addition, the TBEL effluent limitation for pH of 6.0 – 9.0 s.u. is protective of any receiving water quality. No additional WQBELs are required for these parameters, and no change will be made from the last permit.

### b. Oil and Grease –

Discharges are prohibited from creating floating debris, scum, a visible oil sheen (or creates oil present in concentrations at or in excess of 10 mg/L), or globules of grease or other floating material in the receiving stream. Sewage treatment lagoons covered under this 2023 LGP include minor batch dischargers with no significant industrial contribution. However, oil & grease (O&G) is a parameter that could be present at a relatively low level in the wastewater from miscellaneous commercial sources.

The 2018 GP required permittees to visually monitor their discharge a minimum of three (or five) times per week during periods of discharge. If there was a visual sign of an oil sheen or presence of oil, the facility was required to immediately take an oil & grease sample for analysis. The facility also had to take all necessary steps to prevent the discharge of oil and grease, including but not limited to ceasing discharge. No oil & grease was observed during the POR. No change will be made for oil & grease.

### c. *Escherichia coli* –

State surface water must be free from substances attributable to discharges that will create conditions harmful to human health. *Escherichia coli* (*E. coli*) standards are a surrogate for all human pathogens including bacteria and viruses. Water quality standards for *E. coli* are expressed in colony forming units per 100 milliliters of water (cfu/100 mL) or as most probable number (MPN), which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b).

The standards are:

- April 1 through October 31 of each year - the geometric mean number of *E. coli* must not exceed 126 organisms per 100 mL and 10% of the total samples may not exceed 252 organisms per 100 mL during any monthly period; and
- November 1 through March 31 of each year - the geometric mean number of *E. coli* must not exceed 630 organisms per 100 mL and 10% of the total samples may not exceed 1,260 organisms per 100 mL during any monthly period.

DEQ proposes to retain the *E.coli* effluent limits, as shown in **Table 7**:

<b>Table 7: Escherichia Coli Bacteria Effluent Limits <sup>(1)</sup></b>			
Parameter	Units	Average Monthly Limit	Average Weekly Limit
<i>E. coli</i> Bacteria – summer <sup>(2,3)</sup>	# organisms/100 mL	126	252
<i>E. coli</i> Bacteria – winter <sup>(3,4)</sup>	# organisms /100 mL	630	1,260
Footnote:			
(1) See Definitions section at end of permit for explanation of terms.			
(2) This limit applies during the period April 1 through October 31, annually.			
(3) Report the geometric mean if more than one sample collected during the reporting period.			
(4) This limit applies during the period November 1 through March 31, annually.			

Discharges covered by the 2018 LGP were required to meet the *E. coli* effluent limits at the last point of control.

**d. Total Residual Chlorine –**

The total residual chlorine (TRC) chronic aquatic life standard is 0.011 mg/L (11 µg/L) and the acute aquatic life standard is 0.019 mg/L (19 µg/L).

In the 2013 GP, the TRC standards were included as end-of-pipe TRC effluent limits. There were no TRC concentrations reported above the Required Reporting Value (RRV) of 0.10 mg/L (100 µg/L) during that permit cycle. In the 2018 renewal, TRC effluent limits and monitoring were removed. Based on the 2018 Notice of Intent (NOI) information, none of the facilities disinfected with chlorine and there was no known source of chlorine to the domestic lagoons.

However, for this current renewal DEQ determined there was no need to exclude facilities with chlorine disinfection or other chlorine inputs from potential authorization.

If a facility covered under this LGP has the potential to discharge chlorine, their authorization will include TRC effluent limits of 11 µg/L average monthly and 19 µg/L maximum daily. The minimum limit of analytical reliability in the analysis for total residual chlorine is 0.05 mg/L (50 µg/L). For purposes of the Permit, analytical values with a non-detect at or below 50 µg/L shall be considered to be in compliance with the permit limit.

**e. Nutrients –**

Montana requires that municipal discharges be free from substances that create conditions producing undesirable aquatic life. Scientific studies conducted by DEQ has provided valuable information on the seasonal harm that elevated total nitrogen (TN) and total phosphorus (TP) can do by causing excessive algae growth.

Therefore, all facilities authorized under the 2023 batch LGP will remain prohibited from discharging to state surface waters during the period that the nutrients have the potential to harm a given receiving waterbody (**July 1<sup>st</sup> – September 30<sup>th</sup>**, with limited exceptions.) The prohibited period will be noted in the facility's authorization letter.

**f. Total Ammonia as Nitrogen (Ammonia) –**

Ammonia aquatic life acute and chronic toxicity are dependent on ambient pH and temperature data, as well as the type of fishery present. The 2013 GP did not include ammonia limits but did require ambient and effluent monitoring. The 2018 LGP did not include ammonia effluent limits or monitoring based on a narrative RP.

No change will be made as part of this permit renewal.

**g. Nitrate + Nitrite –**

The human health standard (HHS) for nitrate + nitrite is 10 mg/L. The 2013 GP required each permittee to monitor their effluent and ambient nitrate + nitrite concentrations. The 2018 LGP did not require nitrate + nitrite limits or monitoring.

No change will be made as part of this permit renewal.

VI. Effluent Limits

Effluent limitations or conditions in reissued permits are required to be at least as stringent as those in the existing permit, with certain exceptions. DEQ considered the proposed permit limits to ensure that they were as stringent as previous limits or met the anti-backsliding requirements. With this renewal, DEQ will assign each facility under one of two subgroups: (A) Discharging Facilities, or (B) Non-discharging Facilities.

A. *Discharging Facilities:*

Beginning on the effective date and lasting through the term of the 2023 LGP, each discharging facility shall, at a minimum, meet the effluent limits presented below. The limits for each are comprised of the appropriate TBELs and WQBELs. These limits and the outfall location(s) for each facility will be identified in an authorization letter.

1. **TBELs:**

Each discharging facility will be assigned BOD<sub>5</sub>, TSS, and pH limits in their authorization letter, based on the appropriate TBEL category (i.e. Group A.1, A.2, B.1, etc.), as provided in the following tables:

Group A –National Secondary Standards for TSS (**Table 3**)

Group B –Treatment Equivalent to Secondary for TSS (**Table 4**)

Group C –Alternate State Requirements for TSS (**Table 5**)

These limits apply to *all* batch dischargers (both ≤0.10 mgd and >0.10 mgd) but not to any non-discharging facilities.

2. **WQBELs:**

Each discharging facility will be subject to WQBELs as shown below in **Table 8** and below. These limits apply to *all* batch dischargers (both ≤0.10 mgd and >0.10 mgd) but not to any non-discharging facilities. These limits will be specified in each authorization letter.

**Table 8. Water Quality-based Effluent Limits for All Batch Dischargers<sup>(1)</sup>**

Parameter	Units	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit
<i>E. coli</i> bacteria – summer <sup>(2)</sup>	# organisms/100 mL	126	252	--
<i>E. coli</i> bacteria – winter <sup>(2)</sup>	# organisms/100 mL	630	1,260	--
Oil & Grease	mg/L	--	--	10 <sup>(3)</sup>
Total Residual Chlorine <sup>(4)</sup>	µg/L	11	--	19
Other Parameters (WLA and other previous permit limits)	mg/L or µg/L	(5)	--	(5)

Footnotes:

(1) See Definitions section at end of permit for explanation of terms. WQBELs are in addition to TBELs for all batch dischargers except non-discharging facilities.

(2) All facilities are required to comply with the summertime *E.coli* bacteria limit from April 1 through October 31 and the wintertime limit from November 1 through March 31st on an annual basis. The geometric mean must be reported if more than one sample is collected during the reporting period.

(3) If visual monitoring indicates the presence of oil & grease, a grab sample must be submitted for analysis and discharge must cease if the concentration is found to be > 10 mg/L.

(4) TRC limits only applied if chlorine disinfection is used or there is known indirect discharger contribution.

(5) Any facility with an existing WLA or effluent limit will be required to continue to meet these limits. The additional requirements will be specified in the authorization letter to the facility.

In addition to **Table 8**, all batch discharging facilities must meet the following restrictions:

1. There shall be no discharge which causes a visible oil film (or to be present at concentrations at or in excess of 10 mg/L), and
2. There shall be **no discharge during the nutrient growing season (July 1<sup>st</sup> – September 30<sup>th</sup>**, with limited exceptions), as specified in the authorization letter.

#### B. Non-Discharging Facilities:

Non-Discharging Facilities must meet the following:

1. To be authorized as a non-discharging facility under the 2023 LGP, the system must have been designed to be non-discharging. All lagoons must be sealed by soils, bentonite, or synthetic liners (Circular DEQ-2). There must be minimal groundwater infiltration as specified by the design requirements under Department Circular DEQ-2 (or equivalent) in use at the time of the facility installation or upgrade (currently 6 inches a year).

In addition, the facility must have adequate capacity to be operated as a total retention system. A non-discharging facility may only have the following water losses:

- Evaporation, and
  - Land application.
2. Discharge only in accordance with the provisions of the 2023 LGP, Part IV.U or IV.X for a bypass, upset, or emergency overflow.

VII. Monitoring and Reporting Requirements

All facilities are required to monitor their discharge after treatment, at the last point of control before the discharge enters the initial receiving water. All facilities must ensure monitoring is representative of the nature and volume of the discharge.

Effluent samples must be representative of the volume and quality of the effluent. Samples shall be collected, preserved, and analyzed in accordance with approved procedures listed in 40 CFR 136 unless otherwise specified by DEQ in writing. Analytical results reported as less than detection must achieve the required reporting values (RRV) in Department Circular DEQ-7 unless a different reporting level (RL) is specified in the 2023 LGP.

DEQ requires monitoring to occur on a calendar basis (i.e., calendar week, calendar month, calendar quarter). When monitoring is required twice per month, the two samples must be taken at least one week apart during the calendar month. When monitoring is required more than once a week, each sample must be taken on a unique calendar day.

Review of the universe of facilities covered under the 2023 LGP indicates that monitoring frequency is appropriately separated into the following:

- Dischargers  $\leq$  0.1 mgd average daily design flow – **Table 9** (Influent) and **Table 10**
- Dischargers  $>$  0.1 mgd average daily design flow – **Table 9** (Influent) and **Table 11**
- Non-Dischargers – Emergency Discharge Monitoring **Table 12** (Effluent)

A. *Discharging Facilities*

Each facility authorized under the discharging facilities subgroup for the 2023 LGP must submit the results on their NetDMR for each month by the 28<sup>th</sup> of the following month. If no discharge occurs during the reporting period, “no discharge” shall be reported on the DMR.

1. **Influent**

**Table 9** presents the influent monitoring requirements for all discharging facilities:

<b>Table 9: Influent Monitoring and Reporting Requirements for Batch Dischargers<sup>(1)</sup></b>					
Parameter	Units	Sample Type	Minimum Sampling Frequency <sup>(2)</sup>	Reporting Requirements	Reporting Level <sup>(3)</sup>
5-Day Biochemical Oxygen Demand (BOD <sub>5</sub> ) <sup>(4)</sup>	mg/L	Composite	1/Month	None	2

Footnotes:

(1) See Definitions section in the permit. Influent monitoring required for all discharging facilities. Influent monitoring is required only for any calendar period where there is a discharge.

(2) Monthly influent BOD<sub>5</sub> samples are required whenever there is a discharge for that month and is used to calculate the percent removal.

(3) Reporting Level (RL) is the minimum reporting level required for the analysis.

(4) BOD<sub>5</sub> unless facility has requested and is approved to sample for Carbonaceous Biochemical Oxygen Demand (CBOD<sub>5</sub>).

## 2. Effluent Monitoring and Reporting for Dischargers less than or equal to 0.1 mgd

**Table 10** presents the proposed monitoring requirements for batch dischargers (less than or equal to 0.1 mgd average daily design flow).

**Table 10: Effluent Monitoring and Reporting Requirements for ≤0.1 mgd Batch Dischargers<sup>(1)</sup>**

Parameter	Units	Sample Type	Minimum Sampling Frequency <sup>(2)</sup>	Reporting Requirements	Reporting Level <sup>(3)</sup>
Discharge Flow Rate	mgd	Instantaneous or Continuous	3/Week	Daily Maximum and Monthly Average	± 10% of actual
Number of Days with Discharge	#Days	Calculated	1/Day	Monthly Count	1
Total Flow, Million Gallons	MG	Calculated	1/Month	Monthly Flow	--
5-Day Biochemical Oxygen Demand (BOD <sub>5</sub> ) <sup>(4)</sup>	mg/L	Grab	1/Month	Weekly Maximum and Monthly Average	2
	lb/day	Calculated	1/Month		0.1
	% Removal	Calculated	1/Month	Minimum Monthly	0.1
Total Suspended Solids (TSS)	mg/L	Grab	1/Month	Weekly Maximum and Monthly Average	10
	lb/day	Calculated	1/Month		0.1
pH	s.u.	Instantaneous	3/Week	Daily Minimum and Daily Maximum	0.1
Oil & Grease	Yes / No	Visual <sup>(5)</sup>	3/Week	Monthly	--
	mg/L	Grab	<sup>(5)</sup>	Daily Maximum	1
<i>E. coli</i> Bacteria <sup>(6)</sup>	# organisms/100 mL	Grab	1/Month	Daily Maximum and Geometric Mean	1
Total Residual Chlorine (TRC) <sup>(7)</sup>	µg/L	Grab	3/Week	Daily Maximum and Monthly Average	50
Case-by-Case	µg/L or mg/L	Grab	TBD <sup>(8)</sup>	Daily Maximum and Monthly Average	DEQ-7

**Footnotes:**

- (1) See Definitions section in the permit.
- (2) Monitoring is required only for any calendar period where there is a discharge. Methods for calculating mass load (lb/day) and % removal are provided in Parts IV.E.1 & 2.
- (3) RL = minimum reporting level. Analytical results reported as less than detection must achieve the required reporting values (RRV) in Department Circular DEQ-7 unless a different RL is specified.
- (4) BOD<sub>5</sub> unless the facility is authorized with carbonaceous biochemical oxygen demand (CBOD<sub>5</sub>).
- (5) If visual monitoring indicates the presence of oil & grease, a grab sample must be submitted for analysis and discharge must cease if the concentration is found to be > 10 mg/L.
- (6) *Escherichia coli* (*E. coli*) bacteria. Reporting in #organisms per 100 mL (equivalent to either colony forming units (cfu) per 100 mL or most probable number (mpn) per 100 mL). Report the geometric mean if more than one sample is collected during the reporting period.
- (7) TRC monitoring only required if chlorine is used for disinfection or the lagoon receives effluent from a source using significant amounts of chlorine (i.e. water treatment facility, municipal pool).
- (8) To be determined – the monitoring frequency depends upon the TMDL WLA or previous permit requirements.

### 3. Effluent Monitoring and Reporting for Dischargers greater than 0.1 mgd

**Table 11** presents the proposed monitoring requirements for batch dischargers greater than 0.1 mgd average daily design flow.

**Table 11: Effluent Monitoring and Reporting Requirements for >0.1 mgd Dischargers<sup>(1)</sup>**

Parameter	Units	Sample Type	Minimum Sampling Frequency <sup>(2)</sup>	Reporting Requirements	Reporting Level <sup>(3)</sup>
Discharge Flow Rate	mgd	Instantaneous or Continuous	5/Week	Daily Maximum & Monthly Average	± 10% of actual
Number of Days with Discharge	#Days	Calculated	1/Day	Monthly Count	1
Total Flow, Million Gallons (MG)	MG	Calculated	1/Month	Monthly Flow	--
5-Day Biochemical Oxygen Demand <sup>(4)</sup>	mg/L	Grab	2/Month	Weekly Maximum & Monthly Average	2
	lb/day	Calculated	1/Month	0.1	
	% Removal	Calculated	1/Month	Monthly Minimum	0.1
Total Suspended Solids	mg/L	Grab	2/Month	Weekly Maximum & Monthly Average	10
	lb/day	Calculated	1/Month	0.1	
pH	s.u.	Instantaneous	5/Week	Daily Minimum and Daily Maximum	0.1
Oil & Grease	Yes / No	Visual <sup>(5)</sup>	5/Week	Monthly	--
	mg/L	Grab	<sup>(5)</sup>	Daily Maximum	1
<i>E. coli</i> Bacteria <sup>(6)</sup>	# organisms/ 100 mL	Grab	2/Month	Daily Maximum and Geometric Mean	1
Total Residual Chlorine (TRC) <sup>(7)</sup>	µg/L	Grab	5/Week	Daily Maximum & Monthly Average	50
Case-by-Case	µg/L or mg/L	Grab	TBD <sup>(7)</sup>	Daily Maximum & Monthly Average	DEQ-7

#### Footnotes:

- (1) See Definitions section in the permit.
- (2) Monitoring is required only for any calendar period where there is a discharge. Methods for calculating mass load (lb/day) and % removal are provided in this Fact Sheet Parts IV.E.1 & 2.
- (3) RL = minimum reporting level. Analytical results reported as less than detection must achieve the required reporting values (RRV) in Department Circular DEQ-7 unless a different RL is specified.
- (4) BOD<sub>5</sub> unless the facility is authorized to demonstrate compliance with carbonaceous biochemical oxygen demand (CBOD<sub>5</sub>).
- (5) If visual monitoring indicates the presence of oil & grease, a grab sample must be submitted for analysis and discharge must cease if the concentration is found to be > 10 mg/L.
- (6) *Escherichia coli* (*E. coli*) bacteria. Reporting in #organisms per 100 mL (equivalent to either colony forming units (cfu) per 100 mL or most probable number (mpn) per 100 mL). Report the geometric mean if more than one sample is collected during the reporting period.
- (7) TRC monitoring only required if chlorine is used for disinfection or the lagoon receives effluent from a source using significant amounts of chlorine (i.e. water treatment facility, municipal pool).
- (8) To be determined – the monitoring frequency depends upon the TMDL WLA or previous permit requirements.

#### B. No Discharge Facilities with Release

A facility authorized as a non-discharging facility that has a release (a bypass, upset, or emergency release) shall take the following steps:

1. Provide appropriate notification to DEQ:
  - Submit a notification to DEQ for an anticipated bypass for essential maintenance that may result in a discharge as soon as possible, but at least ten days prior to the bypass, in conformance with the 2023 LGP Part IV.X, or
  - Orally report an upset, unanticipated bypass, or emergency release to DEQ within 24 hours of becoming aware of the circumstances, and submit a written submission within five business days, unless waived by DEQ in conformance with the 2023 LGP Part IV.U.
2. Monitor the release for the following parameters as indicated (**Table 12**).
3. Provide the monitoring results on the **Non-Discharging Facility Release Form** no later than the 28<sup>th</sup> of the following month (see **Attachment B**).

**Table 12: No Discharge Facilities - Required Monitoring**

Parameter	Units	Sample Type <sup>(1)</sup>	Minimum Sampling Frequency <sup>(2)</sup>	Reporting Requirements	Reporting Level <sup>(3)</sup>
Discharge Start and End Date & Time	Date + Time	Instantaneous	5/Week	Start & End	Hour
Discharge Flow Rate	mgd	Instantaneous or Continuous	5/Week	Daily Maximum & Monthly Average	± 10% of actual flow
Number of Days with Discharge	# Days	Calculated	1/Day	Monthly Count	1
Total Flow, Million Gallons (MG)	MG	Calculated	1/Month	Monthly Total	--
5-Day Biochemical Oxygen Demand (BOD <sub>5</sub> )	mg/L	Grab	1/Week	Weekly Maximum & Monthly Average	2
Total Suspended Solids (TSS)	mg/L	Grab	1/Week	Weekly Maximum & Monthly Average	10
pH	s.u.	Instantaneous	5/Week	Daily Minimum & Daily Maximum	0.1
Oil & Grease	Yes / No	Visual <sup>(4)</sup>	5/Week	Monthly	--
	mg/L	Grab	<sup>(4)</sup>	Daily Maximum	1
Escherichia coli (E. coli) Bacteria <sup>(5)</sup>	# organisms/100 mL	Grab	1/Week	Daily Maximum & Geometric Mean	1
Total Residual Chlorine (TRC) <sup>(6)</sup>	µg/L	Grab	5/Week	Daily Maximum & Monthly Average	50

**Footnotes:**

- (1) See Definitions section in the permit.
- (2) Monitoring is required for any period with an emergency discharge.
- (3) RL = minimum reporting level. Analytical results reported as less than detection must achieve the required reporting values (RRV) in Department Circular DEQ-7 unless a different RL is specified.
- (4) If visual monitoring indicates the presence of oil & grease, a grab sample must be submitted for analysis.
- (5) E. coli bacteria reporting in #organisms per 100 mL (equivalent to colony forming units (cfu) per 100 mL or most probable number (mpn) per 100 mL). Report the geometric mean if more than one sample is collected during the reporting period.
- (6) TRC monitoring only required if facility conducts chlorine disinfection or has industrial contribution of chlorine.

## VIII. Special Conditions

### A. *Lagoon O&M Requirements – All Facilities*

A permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of the permit. This proposed LGP will maintain the requirement for every facility, **including non-discharging facilities**, to maintain and operate in accordance with an up-to-date Operations & Management (O&M) Plan. Each facility is required to:

- a. Maintain an up-to-date O&M manual for the domestic sewage treatment lagoon system;
- b. Follow the procedures in the O&M manual;
- c. Conduct inspections at least monthly to ensure the O&M procedures are being followed and are working; and
- d. Maintain records of the routine inspections and any follow-up. Records from the routine inspections must be maintained for at least three years, and available for an inspector upon request. At a minimum, the records shall include:
  - Date and time of inspection;
  - Name of the inspector(s);
  - Weather conditions during inspection;
  - Visual observation of lagoon conditions, including wastewater observations (water level, odor, and visible appearance) and dike condition (signs of leakage, erosion, rodents burrowing, and/or vegetation growth);
  - Discharge flow rate, if occurring;
  - Identification of O&M problems;
  - Recommendations, as appropriate, to rectify identified O&M problems;
  - A brief description of any actions taken with regards to identified problems including timeframes for resolution; and
  - Other information, as appropriate (e.g., effluent sample and measurement location).

### B. *Sludge Handling – All Facilities*

The use or disposal of sewage sludge must be in conformance with 40 CFR Part 503. In addition, all facilities, including non-discharging facilities, shall submit a sludge accumulation update report, which includes at a minimum:

- date of the most recent sludge assessment (which may be before this permit cycle) and major findings and method of sludge measurement,
- best estimate of the current amount of sludge (in feet),
- date of most recent sludge removal, and
- work planned to remove or minimize sludge over the next five years, if any.

A summary of the facility's most recent sludge review must be completed and submitted to DEQ by **[Six months prior to 2023 Permit Expiration]**.

C. *Seasonal Land Application of Treated Effluent*

Any authorized facilities, including non-discharging facilities, that employ land application are required to incorporate good operating procedures for the treated effluent land application system into the facility's final O&M manual as a Land Application Nutrient Management Plan (NMP). The NMP shall be designed to minimize the potential for release of pollutants to state waters. It shall detail how the facility will control land-applied effluent to optimize nutrient uptake, eliminate the risk of runoff to surface water or ground water infiltration/percolation, and maintain the agronomic capacity of the soil. The seasonal land application of treated effluent plan must address applicable requirements from Department Circular DEQ-2, including:

- Duration (for each parcel receiving treated effluent): date land application of treated effluent started, number of total years land application has been conducted, and remaining years available for land application before field is retired.
- Documentation of setbacks from public access points and waterways (i.e. no application closer than 50 feet from ditches, streams or surface water).
- Unless land application is approved not to remove plant mass, document the volume of plant mass removed from site annually and document crop type grown and harvested (example – yards of turf grass cuttings, or hay grass removed over the full growing season. For tree farms, volume of tree mass and understory removed each year).
- Monitoring:
  - Method of flow monitoring and calibration (flow meter or pump run time).
  - Method of recordkeeping for daily volume applied (both treated effluent and irrigation water).
  - Comparison of volume applied per application compared to design engineers' per application allowance contained in the DEQ approved design report or O&M documents.
  - Documentation of field size irrigated during each application.
- Effluent and Soil Sampling Minimum Requirements:
  - Sampling locations and methodology (sampling procedures, analysis, recordkeeping).
  - Effluent sampling analysis results for:
    - Electrical Conductivity (EC) in mmho/cm or dS/m
    - Total Nitrogen
    - Total coliform or *E. coli* bacteria
  - Soil sampling analysis results for:
    - Electrical Conductivity (EC) in mmho/cm or dS/m
    - Sodium Adsorption Ratio (SAR)
    - pH

Soil sampling must occur at least once every three years unless more frequent sampling is required by specific DEQ approval conditions. Sites used for effluent irrigation for periods that exceed 20 years must undergo an investigation performed by a qualified soil scientist or agronomist to ensure continued application will not result in soil/plant health issues.

Each facility shall maintain land application records for three years and make them available for inspection by DEQ personnel upon request.

*D. Inflow/Infiltration – Facilities  $\geq 0.1 \text{ mgd}$  design flow*

Each facility with an average daily design flow greater than 0.1 mgd, including non-discharging facilities, shall submit an Inflow/Infiltration (I/I) status update during the last year of the permit cycle and include at a minimum:

- date of the most recent I/I assessment (which may be before this permit cycle),
- work completed since the most recent I/I assessment,
- work planned to reduce I/I over the next five years, and
- best estimate of the current amount and sources of I/I into the collection system.

A summary of the facility's most recent I/I review must be completed by and submitted to DEQ by [Six months prior to 2023 Permit Expiration].

*E. Sanitary Sewer Overflow (SSO)*

All batch discharging facilities, including those under the non-discharging subcategory, must report all Sanitary Sewer Overflows in conformance with the unanticipated bypass provisions in Part IV, Section U of this permit.

*F. Special Conditions Summary*

**Table 13** presents a summary of Special Conditions due dates.

<b>Table 13: Summary of Special Conditions and Due Dates</b>		
Action	Action Completion Due Date <sup>(1)</sup>	Report Due Date <sup>(2)</sup>
<b>ALL</b>		
Operation & Maintenance Plan and records ( <i>all</i> )	Continual	Maintain for three years.
Sludge Handling ( <i>all</i> )	[Six months prior to expiration]	[14 days after action completion date]
Land application – Plan and records ( <i>if applicable</i> )	Continual	Maintain for three years.
<b>Additional Requirements for WWTF with average daily design flow greater than 0.1 mgd</b>		
Review I/I and provide status update ( <i>all facilities <math>&gt; 0.1 \text{ mgd}</math></i> )	[Six months prior to expiration]	[14 days after action completion date]
Footnotes: (1) The actions must be completed on or before the scheduled completion dates. (2) This notification must be received by DEQ on or before the scheduled due date.		

*G. Pretreatment Program*

Facilities that operate under the EPA Pretreatment Program or accept discharge from categorical industrial users, significant industrial users, or other users that may cause pass through or interference, cannot be covered under the 2023 LGP. The LGP will include standard language restricting the introduction of certain pollutants into the authorized facilities and requiring a facility to provide adequate notice to DEQ if a new source, volume, or character of industrial pollutant is introduced into the system.

IX. Information Sources

1. Montana Code Annotated Title 75 - Chapter 5 - Water Quality
2. Administrative Rules of Montana Title 17 Chapter 30 - Water Quality
  - a. Subchapter 2 - Water Quality Permit and Application Fees
  - b. Subchapter 5 - Mixing Zones in Surface and Ground Water
  - c. Subchapter 6 - Montana Surface Water Quality Standards and Procedures
  - d. Subchapter 7- Nondegradation of Water Quality
  - e. Subchapter 11 - Storm Water Discharges
  - f. Subchapter 12 - MPDES Standards
  - g. Subchapter 13 - MPDES Permits
3. Montana Department of Environmental Quality Circular DEQ-2, Design Standards for Wastewater Facilities, 2018.
4. Montana Department of Environmental Quality Circular DEQ-7, Montana Numeric Water Quality Standards, 2019.
5. Montana Pollutant Discharge Elimination System (MPDES) Permit Number MTG580000: Administrative Record.
6. Federal Water Pollution Control Act (Clean Water Act), 33 U.S.C. §§ 1251-1387, October 18, 1972, as amended 1973-1983, 1987, 1988, 1990-1992, 1994, 1995 and 1996.
7. Federal Water Pollution Control Act (Clean Water Act), § 303(d), 33 USC 1313(d) Montana List of Waterbodies in Need of Total Maximum Daily Load Development, 2016.
8. Federal Register, 49 FR 37005 Alternative State Requirements for Montana, September 20, 1984.
9. US Code of Federal Regulations, 40 CFR Parts 122-125, 130-133, & 136.
10. US Code of Federal Regulations, 40 CFR Part 403 – General Pretreatment Regulations for Existing and New Sources of Pollution.
11. US Code of Federal Regulations, 40 CFR Part 503 – Standards for the Use or Disposal of Sewage Sludge.
12. US EPA NPDES Permit Writers’ Manual, EPA 833-K-10-001, September 2010.

Fact Sheet Developed: April 2022

**Attachment A: Notice of Intent (NOI) Form**



WATER  
PROTECTION  
BUREAU

Agency Use

Authorization No.:

Date Rec'd  
Amount Rec'd  
Check No.  
Rec'd By

FORM  
**NOI-580**  
2022

**Notice of Intent (NOI)**  
**Domestic Sewage Treatment Lagoons**  
**Batch and Non-Discharging Facilities**  
**MTG580000**

The NOI form is to be completed by the owner or operator of a domestic sewage treatment lagoon that is eligible for coverage under the Montana Department of Environmental Quality's *General Permit for Domestic Sewage Treatment Lagoons – Batch and Non-Discharging Facilities*. You must print or type legibly; forms that are not legible, not complete, or unsigned will be returned. You must maintain a copy of the completed NOI form for your records.

**PLEASE READ THE ATTACHED INSTRUCTIONS BEFORE COMPLETING THIS FORM.**

**Section A - NOI Status (check one)**

- New                    No prior NOI submitted.  
 Request termination of Individual Permit. Permit Number: M T 0 0 \_\_\_\_\_
- Renewal                Permit Number: M T G 5 8 0 \_\_\_\_\_
- Modification        Permit Number: M T G 5 8 0 \_\_\_\_\_
- Resubmitted          Permit Number M T G 5 8 0 \_\_\_\_\_

**Applicable Sub-group**

- Non- Discharging       Batch Discharger (\**No discharge allowed during nutrient growing season*)

**Section B - Facility Information (See instruction sheet)**

Facility Name \_\_\_\_\_

Facility Location \_\_\_\_\_

City, State, Zip \_\_\_\_\_

County \_\_\_\_\_

Facility: Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

Facility Contact (*name, title*) \_\_\_\_\_ , \_\_\_\_\_

Phone Number (\_\_\_\_\_) \_\_\_\_\_ E-mail \_\_\_\_\_

Is the facility located on Indian Lands?       Yes       No (*if yes, STOP. See instructions*)

Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?       Yes       No

**Section C - Applicant (Owner/Operator) Information (see instructions)**Applicant (Owner/Operator) Name (*see instructions*) \_\_\_\_\_

Mailing Address \_\_\_\_\_

City, State, and Zip Code \_\_\_\_\_

Applicant contact (*name, title*) \_\_\_\_\_, \_\_\_\_\_Applicant Employer (*if different*): \_\_\_\_\_

Phone Number (\_\_\_\_\_) \_\_\_\_\_ E-mail \_\_\_\_\_

Applicant is: (*Check all that apply - see definitions*)  Owner  OperatorStatus of Applicant (*Check one*)  Federal  State  Public  Private  Other (*specify*) \_\_\_\_\_**1. Existing or Pending Permits, Certifications, or Approvals**  None MPDES \_\_\_\_\_ RCRA \_\_\_\_\_ Clean Air Act \_\_\_\_\_ Other (*specify*) \_\_\_\_\_ 404 Permit (dredge & fill) \_\_\_\_\_ Other (*specify*) \_\_\_\_\_**2. Standard Industrial Classification (SIC) & North American Industry Classification System (NAICS) Codes**

SIC Code	Description	NAICS Code	Description
1 _____		_____	
2 _____		_____	

**3. Map.** Attach a **topographic or aerial map** of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility and the location of each of its existing and proposed intake and discharge structures and monitoring locations (outfalls). Include all springs, rivers, and other surface water bodies within the one mile zone on the map, or provide an additional map. Indicate type(s) of map(s) supplied:

Topographic map       Aerial map       Other map: \_\_\_\_\_

**Section D – Outfall Location(s) and Receiving Water**

Outfall No.	Latitude	Longitude	Receiving Water <sup>(1)</sup> ( <i>Initial and First Named</i> )

*Footnote:*

(1) Identify the initial state surface water that your facility discharges to as well as the first named state surface water, if different (i.e., "unnamed ditch to Full Creek"). If a non-discharging facility without a physical outfall, identify probable discharge location.

**1. Effluent monitoring location:**i. describe monitoring location (*note if none*) (e.g.. effluent control device, outfall): \_\_\_\_\_ii. latitude/longitude (*or note same as Outfall*): \_\_\_\_\_ / \_\_\_\_\_iii. indicate if above location for:  effluent flow monitoring,  effluent sampling,  both

iv. if there is a second effluent monitoring location, provide the above information for it, below:

\_\_\_\_\_

**Section E - Domestic Sewage Treatment Lagoon Collection System & Influent Information****1. Collection System Information.** Provide information on municipalities and areas served by the facility.

Type of collection system (Separate vs. Combined Sanitary Sewer) and percent contribution (by miles) of each:

- Separate sanitary sewer \_\_\_\_\_ % of total contribution  
 Combined storm and sanitary sewer \_\_\_\_\_ % of total contribution

Collection System Name	Population Served	Type of Collection System	Ownership

Total population served by facility: \_\_\_\_\_ Year of data: \_\_\_\_\_

**2. Non-Domestic (Industrial) Users:**

- a. Provide information on any non-domestic user (i.e. indirect discharger) to the facility:

Name	Industry Type	Estimated Process Flow (non-domestic) (gpd)

**3. Infiltration/Inflow (I/I) Status Update (for facilities with an average daily design flow > 0.1 mgd):**

- a. Estimate the average number of gallons per day (gpd) that flow into the treatment works from inflow and/or infiltration

Annually: \_\_\_\_\_ gpd I/I estimate

- b. Date of most recent I/I evaluation: \_\_\_\_\_ Date I/I summary report submitted to DEQ: \_\_\_\_\_

Comments:

**4. Influent Monitoring:**

Describe influent sampling location (e.g. manhole, lift station, etc.): \_\_\_\_\_

Indicate whether location is for:  influent flow monitoring       influent sampling       both**5. Lagoon Flow Data****a. Design Flow (Influent flow rate facility was designed to handle)**

- Current Average Daily Design Flow \_\_\_\_\_ million gallons per day (mgd)
- Historic Average Daily Design Flow (c. 1993): \_\_\_\_\_ mgd. Specify year of data: \_\_\_\_\_

**b. Actual Flow (Recent discharge flow rates):**

Annual Flow Monitoring Data Last three rolling years (specify Mo/Yr)	Two years ago to	One year ago to	This year to
1. Annual average daily flow rate (mgd)			
2. Maximum daily flow rate (mgd)			
3. Total number of months with discharge			

**Section F – Treatment and Discharge Methods****1. Description of Treatment****a. Facultative vs. Aerated Lagoons (check the one that applies and complete relevant information)** Facultative system

Number of facultative cells \_\_\_\_\_

Designed retention time for system: \_\_\_\_\_ days

Actual retention time for system: \_\_\_\_\_ days

 Aerated or partially mixed system

Number of aerated cells \_\_\_\_\_

Number of partially mixed cells \_\_\_\_\_

Number of facultative or acquiescent cells \_\_\_\_\_

Year Installed: \_\_\_\_\_ If applicable, date plan &amp; specification approved: \_\_\_\_\_

Year Last Modified: \_\_\_\_\_ If applicable, date plan &amp; specification approved: \_\_\_\_\_

**b. Disinfection (check the one(s) that apply)** None Ultraviolet (UV) disinfection Chlorination. If chlorination, is dechlorination employed prior to discharge? \_\_\_\_\_ Other: \_\_\_\_\_**2. Discharge Method****a. Method of lagoon discharge to surface waters (check the one that applies):** **Batch discharge** (includes periodic, controlled, and intermittent). Provide the following information:

1. Number of discrete batch discharges per year: \_\_\_\_\_

2. Average duration of each discharge (days): \_\_\_\_\_

3. Average flow rate for each discharge (mgd) \_\_\_\_\_

 **Non-discharging.** Date of last discharge: \_\_\_\_\_

1. Explain improvements made that allowed discharge to cease: \_\_\_\_\_

**b. Additional wastewater disposal methods (check each that apply):** Surface impoundment. If applicable, date plan & specification approved: \_\_\_\_\_

Location: \_\_\_\_\_ Annual ave. daily volume (mgd) \_\_\_\_\_ Estim days/year: \_\_\_\_\_

 Land application. If applicable, date plan & specification approved: \_\_\_\_\_

Location: \_\_\_\_\_ Annual ave. daily volume (mgd) \_\_\_\_\_ Estim days/year: \_\_\_\_\_

Date of most recent Nutrient Management Plan update: \_\_\_\_\_

 Transport to another treatment works

Transporter: \_\_\_\_\_ Annual ave. daily volume (mgd) \_\_\_\_\_ Estim days/year: \_\_\_\_\_

 Underground percolation/well injection. If applicable, date plan & specification approved: \_\_\_\_\_

Location: \_\_\_\_\_ Annual ave. daily volume (mgd) \_\_\_\_\_ Estim days/year: \_\_\_\_\_

**Section G - Effluent Monitoring Information:**

All data must be based on 40 CFR 136 methods and be no more than 4.5 years old. If no discharge in this timeframe indicate "NA."

<b>Pollutant <sup>(1)</sup></b>	<b>Maximum</b>	<b>Long Term Average</b>	<b>Units</b>	<b>No. of Analyses</b>
1. Total Suspended Solids (TSS)				
2. Biochemical Oxygen Demand (BOD <sub>5</sub> )				
Carbonaceous BOD <sub>5</sub> (CBOD <sub>5</sub> )*				
*optional – only if permittee requests <sup>(2)</sup>				
3. pH	<u>Max:</u>	<u>Min:</u>	<b>s.u.</b>	
4. Temperature (winter)				
5. Temperature (summer)				
6. <i>E. Coli</i> bacteria <sup>(3)</sup>			<b>#/100 mL</b>	
7. Dissolved Oxygen <sup>(4)</sup>	<u>Min:</u>			
8. Oil and Grease				
9. Total Residual Chlorine (TRC) <sup>(4)</sup>				
10. Ammonia				
11. Total Kjeldahl Nitrogen (TKN) <sup>(4,5)</sup>				
12. Nitrate+ Nitrite (NO <sub>3</sub> +NO <sub>2</sub> )				
13. Total Nitrogen (TN) <sup>(4,5)</sup>				
14. Total Phosphorus (TP) <sup>(4,5)</sup>				
15. Total Dissolved Solids (TDS) <sup>(4)</sup>				
16. Other:				

**Footnote:**

(1) Data for each parameter required unless otherwise noted.

(2) As allowed under 40 CFR 133.102(a)(4), DEQ may substitute CBOD<sub>5</sub> for BOD<sub>5</sub> upon request of applicant.

(3) Reporting *Escherichia coli* (*E. coli*) bacteria as #/100 milliliters (mL) includes either most probable number (mpn) per 100 mL or colony-forming units (cfu) per 100 mL. Report the geometric mean rather than the long-term average.

(4) Provide requested data only if available.

(5) Provide nutrient data taken in the applicable summer period (typically July 1 – September 30<sup>th</sup>) if discharge has occurred in that timeframe.

**CBOD<sub>5</sub> – For Batch Discharging Subgroup, only.** Are you requesting to substitute CBOD<sub>5</sub> in lieu of BOD<sub>5</sub>?

No, please maintain BOD<sub>5</sub> as the appropriate parameter for limits and compliance monitoring

Yes, please replace BOD<sub>5</sub> with CBOD<sub>5</sub> as the appropriate parameter for limits and compliance monitoring

**Section H - Demonstration of Eligibility for Less Stringent Technology-based Effluent Limits**

*FOR BATCH DISCHARGING SUBGROUP, ONLY. Facilities will be subject to the default, National Secondary Standards (NSS), unless there is sufficient demonstration for eligibility for treatment equivalent to secondary (TES) for either 5-day biochemical oxygen demand (BOD<sub>5</sub>) and/or Total Suspended Solids (TSS) or alternate state requirements (ASR) for TSS. Provide information to support your request for less stringent limits and select the appropriate TSS and BOD<sub>5</sub> standards that apply to your facility.*

**Step One: Provide information to support eligibility for less stringent TBELs:**

Indicate whether you are requesting TES or ASR for one or both parameters. If so, provide the 95<sup>th</sup> percentile of the monthly and weekly average concentrations for the applicable parameter (TSS and/or BOD<sub>5</sub>) for the past 2 to 4.5 years.

Parameter	Units	Requesting Less Stringent TBELs?	95 <sup>th</sup> Percentile Monthly Average	95 <sup>th</sup> Percentile Weekly Average	Date Range (Mo/Yr to Mo/Yr)
TSS	mg/L	Y    N			
BOD <sub>5</sub>	mg/L	Y    N			
	% removal	--	5 <sup>th</sup> percentile:	NA	

- Certification that proper operation and maintenance was conducted** – provide narrative overview below.

**Proper Operation & Maintenance:** *Provide justification (attach sheet(s) as necessary) for meeting TES or ASR, above. Examples include following O&M Manuals, active involvement in managing lagoon, and conducting optimization or other assessment.*

**Step Two: Select the appropriate TSS Category for Batch Dischargers (Check one):**

- (A) TSS - National Secondary Standards (NSS)**

Limits = 30 mg/L monthly average and 45 mg/L weekly average – default, no demonstration needed (*i.e. NSS is required unless the applicable conditions are met for TES or ASR*).

- (B) TSS - Treatment Equivalent to Secondary (TES)**

Limits = 45 mg/L monthly average and 65 mg/L weekly average – applies if the 95<sup>th</sup> percentile TSS effluent quality for the previous 2 to 4.5 years' is 30 - 45 mg/L monthly average and/or 45 - 65 mg/L weekly average; the facility has demonstrated proper operation & maintenance; and has ≥ 65% BOD<sub>5</sub> removal.

- (C) TSS - Alternate State Requirements (ASR)**

Limits = 100 mg/L monthly average and 135 mg/L weekly average – applies if the 95<sup>th</sup> percentile TSS effluent quality for the previous 2 to 4.5 years' is > 45 mg/L monthly average and/or > 65 mg/L weekly average; the facility has demonstrated having proper operation & maintenance; and treats to or better than 45 mg/L BOD<sub>5</sub>.

**Step Three: Select the appropriate BOD<sub>5</sub> Category for Batch Dischargers (Check one):**

- (1) BOD<sub>5</sub> National Secondary Standards (NSS)**

Limits = 30 mg/L monthly average, 45 mg/L weekly average, and 85% removal – default, no demonstration needed (*i.e. NSS is required unless the applicable conditions are met for TES*).

- (2) BOD<sub>5</sub> - Treatment Equivalent to Secondary (TES)**

Limits = 45 mg/L monthly average, 65 mg/L weekly average, and ≥ 65% removal – applies if the 95<sup>th</sup> percentile BOD<sub>5</sub> effluent quality for the previous 2 to 4.5 years' is > 30 mg/L monthly average and/or > 45 mg/L weekly average and facility has demonstrated proper operation & maintenance.

**Section I – Sludge Handling – All Facilities**

Has sludge been removed from the lagoon within the past five years?

- Yes.  
 No.

If no, When was the last year sludge was removed? \_\_\_\_\_

Have you evaluated the sludge depth within the past five years?

- Yes, the depth is \_\_\_\_\_.  
 No.

**Section J - Sage Grouse Habitat – Applicable Facilities**

A Sage Grouse Consultation letter is not required for domestic sewage treatment lagoons that are renewing coverage unless the permittee has expanded the treatment area footprint and the expanded facility is located outside of an incorporated city or town. If you are submitting an NOI for a new facility, or a facility that has expanded its' footprint, visit the Montana Sage Grouse Habitat Conservation Program website (*see instructions for link*) and determine if the domestic lagoon facility is located in designated sage grouse habitat (core, general, and/or connectivity) but outside of incorporated cities and towns.

Is the new or expanded domestic treatment lagoon within sage grouse habitat?

- Yes: Submit application to the Sage Grouse Program and attach a copy of the application and resulting consulting letter.  
 No: Project is not located in a designated habitat. No further effort needed.  
 NA: This permitting action is for a renewal of an existing facility.

**Section K - New Facilities**

This section must be completed by any new domestic sewage treatment lagoon seeking coverage under this general permit.  
*Note that this can only apply to dischargers to ephemeral waterbodies.*

**A. NRIS.** Describe the potential impacts of the proposed activity on unique ecological resources, species of special concern, including vegetation, wildlife, fish or aquatic resources, or habitat. Attach analysis from Montana Natural Heritage Program and any applicable maps or analysis from the Natural Resource Information System (NRIS).

**B. SHPO.** Describe the potential impact of the proposed activity on any historical, cultural, or archeological resources. Attach analysis from the Montana State Historic Preservation Office (SHPO).

**Section L - CERTIFICATION FOR ALL OWNER/OPERATORS**

**Applicant Information:** This form must be completed, signed, and certified in accordance with ARM 17.30.1323(1), as follows:

- For a corporation, by a principal officer of at least the level of vice president;
- For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
- For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking elected official.

**All Applicants Must Complete 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 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. [75-5-633, MCA]

**A. Name (Type or Print)****B. Title (Type or Print)****C. Phone No.****D. Signature****E. Date Signed****Section M – Authorized Representative:**

In order for future reports, including Discharge Monitoring Reports (DMRs), to be signed by anyone other than the signatory for this NOI, a duly authorized individual(s) or position(s) must be identified. If one is not designated, then all reports must be signed by the signatory until such designation is made in writing [ARM 17.30.1323(2)].(Check the appropriate box(es)):

- I designate the Facility Contact listed in Section B as a duly authorized individual  
 I designate the Applicant Contact listed in Section C as a duly authorized individual  
 I designate the following other duly authorized representative for this permit (*complete information below*):

Name and Title, or Position Title: \_\_\_\_\_

Company Name (if different than the applicant): \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City, State, and Zip Code: \_\_\_\_\_

Phone Number: (        ) \_\_\_\_\_ Email Address: \_\_\_\_\_

\*\*\*\*\* Or \*\*\*\*\*

- No duly authorized representative for this permit is designated at this time.

## **INSTRUCTIONS FOR Form NOI – 580**

### **General Permit for Domestic Sewage Treatment Lagoons – Batch and Non-Discharging Facilities (MTG580000)**

The Notice of Intent Form (NOI-580 form) is to be completed by the owner/operator of a domestic sewage treatment lagoon that is eligible for coverage under DEQ's *General Permit for Domestic Sewage Treatment Lagoons – Batch and Non-Discharging Facilities (General Permit)*. General permit documents and related forms are available on the DEQ website at: <https://deq.mt.gov/water/assistance> or from DEQ by calling (406) 444-5546.

You must provide all of the information requested in the NOI form to be complete, including submittal of specified fees and completed certification by the appropriate signatory. Please type or print legibly; applications that are not legible or are not complete will be returned. Responses must be self-explanatory and must not refer exclusively to attached maps, plans, or documents. Mail the completed NOI Form and fee to:

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

After receipt of a complete NOI package, DEQ will issue an authorization letter that contains the specific effluent limits and monitoring schedule for your facility based on the data supplied in the NOI form. **You must maintain a copy of the General Permit, completed NOI Form, and authorization letter for your records.**

#### **SPECIFIC ITEM INSTRUCTIONS**

**Section A – NOI Status** - A complete NOI includes payment of the appropriate fee, unless specified otherwise by the DEQ. Fees are found in the Administrative Rules of Montana (ARM) 17.30.201.

New

Check new if this is the first NOI submission for this facility. If you are requesting coverage under the General Permit to supersede an individual MPDES permit, check that you wish to also terminate coverage under the individual permit and provide the MPDES number.

Renewal

For existing permit authorizations. Upon renewal of this General Permit (on a five-year basis), any owner/operator that wishes to continue coverage under the renewed General Permit must submit a NOI for renewal. Include the permit authorization number previously assigned to your facility.

Modification

If you are applying for a change in the facility or site information, check Modification. Include the permit number.

Resubmitted

If the DEQ returned your NOI to you as deficient or incomplete, you must check Resubmitted. If resubmitted multiple times and you were sent an invoice, include the resubmitted application fee. Include the permit number that the DEQ assigned.

Indicate which sub-group (non-discharging or discharging) is applicable to your facility. A Non-discharging facility must be designed and operated as non-discharging. The system must have adequate capacity to be operated as a total retention system with minimal groundwater infiltration (as

specified in Department Circular DEQ-2), with only land application and evaporation as the pathways for water loss.

***Do not use this form to transfer permit coverage to a new owner or operator. For a permit transfer you must use Form PTN.***

### **Section B –Facility Information**

Give the facility's official or legal name. Do not use a colloquial name. For this General Permit the facility name means the name of the physical site from which pollutants or wastes are, or will be, treated and/or discharged. The facility may be a publicly- or privately-owned property. Most common is “CITY NAME Wastewater Treatment Facility (WWTF).”

Give the physical address or location of this facility or activity. The location may be a physical mailing address or a description of how the site may be accessed. P.O. boxes are not acceptable.

Provide the latitude and longitude for the location of the approximate center point of the facility. It is preferred the latitude and longitude location be specified in decimal degrees, accurate to the fourth decimal place. If decimal degrees are not used, then the latitude and longitude must be provided in degrees, minutes, and seconds, accurate to the nearest 15 seconds.

Provide the name, title, and contact information for a Facility contact. The Facility contact should be someone who has a thorough understanding of the operation of the treatment works. DEQ may call this person if there are any questions about the application or plant operations.

Lastly, indicate whether the facility is located on Indian lands or if the discharge may reach any receiving waters within Indian country. DEQ is not the regulating government entity if the facility discharges within the boundaries of an Indian Reservation, and this General Permit and associated NOI form is irrelevant. In this case the US Environmental Protection Agency (EPA) will be the regulating entity.

### **Section C – Applicant (Owner/Operator) Information**

Give the name, as it is legally referred to, of the public organization or other entity that owns, operates, controls, or supervises the site(s) described in Section B of this NOI form. For example, one common applicant for this General Permit is “Town of TOWN NAME.” **PLEASE NOTE THAT THE PERSON WHO IS THE CERTIFIED OPERATOR IS NOT THE “Applicant (Owner/Operator)”**. The owner or operator assumes all liability for discharges from the site and compliance with the terms and conditions of the General Permit. If the owner or operator is other than an individual or government entity, it must be registered with the Montana Secretary of State’s office. The authorization letter will be issued to the entity identified as owner/operator in this section.

For the Applicant contact, indicate ‘same as Facility contact’ unless someone other than the Facility contact person is actually submitting this application (e.g. a consultant or municipal engineer). If it is a different contact, provide the name, title and who they are representing as well as a work phone number, and email address (optional). DEQ may call the Applicant contact if there are questions about the permit application.

**1. Existing or Pending Permits, Certifications, or Approvals** – Check the box(s) that apply to any existing or pending permits held by this facility or activity. Provide the permit or certification #.

**2. Standard Industrial Classification (SIC) & North American Industry Classification System (NAICS) Codes** - List the primary and, if applicable, secondary, four-digit SIC and six-digit NAICS Code(s) that best describe the business of the owner/operator. Also, provide a brief description in the space provided. At least one SIC code and one NAICS Code must be provided. The most common Codes for a municipal domestic sewage treatment lagoon are:

A complete list of SIC and NAICS codes can be obtained at <https://www.census.gov/naics/> .

**3. Map** – Attach a map(s) of the area extending to at least one mile beyond the property boundaries. The map must be easily legible and are preferably topographic or aerial maps. The map, or maps, must include all of the elements described on the NOI form, including the treatment facilities, the intake and discharge structures, monitoring locations, and receiving waterbody. NOI forms submitted with incomplete or illegible maps will be considered incomplete.

#### **Section D– Outfall Location(s) and Receiving Water**

Provide a list of all effluent discharge locations (outfalls). Include the latitude and longitude of the specific location that the effluent exits the discharge structure and enters the receiving water. It is preferred the latitude and longitude location be specified in decimal degrees, accurate to the fourth decimal place. If decimal degrees are not used, then the latitude and longitude must be provided in degrees, minutes, and seconds, accurate to the nearest 15 seconds. If the facility is a non-discharging facility that does not have a physical outfall, provide the most likely location for a temporary discharge structure.

Provide the receiving water name. If the initial receiving water is unnamed, provide additional details including the first named receiving waterbody (e.g. “unnamed ditch, tributary to Beaver Creek”). For renewals, use the outfall number(s) specified in the current authorization. For new projects list all outfalls starting with 001 and continuing 002, 003, etc.

#### **1. Effluent Monitoring Location**

Describe narratively the location where effluent (discharge) samples are taken. Provide the physical location including latitude/longitude. Indicate if this location is for taking samples (grab, instantaneous, or composite) and/or measuring flow. If there is more than one effluent monitoring location describe it in the space provided.

#### **Section E - Domestic Sewage Treatment Lagoon Collection System & Influent Information**

##### **1. Collection System Information.**

Identify the extent that the entire collection system is designed as a separate sanitary sewer vs. the extent that the system is a combined storm water/sanitary sewer system. Provide information on municipalities and areas served by the facility, and the most recent data on the number of people served by the treatment system.

##### **2. Non-Domestic (Industrial) Users.**

Provide the name, type of industry, and estimated non-domestic wastewater flow in gallons per day (gpd) for each indirect discharger to your treatment facility. Examples might be (excluding sanitary waste): manufacturing facilities, breweries, medical facilities such as dental offices, and commercial enterprises. Add additional pages if necessary.

##### **3. Infiltration/Inflow (I/I) (for authorized facilities $> 0.1 \text{ mgd}$ average daily design flow):**

EPA defined I/I in “Infiltration/Inflow (I/I),” Ecology Publication No. 97-03 (May 1985), as:

- **Infiltration** occurs when groundwater enters a sewer system through broken pipes, defective pipe joints, or illegal connections of foundation drains.
- **Inflow** is surface runoff that enters a sewer system through manhole covers, exposed broken pipe and defective pipe joints, cross connections between storm sewers and sanitary sewers, and illegal connection of roof leaders, cellar drains, yard drains, or catch basins.

If your facility has an average daily design flow of greater than 0.1 mgd, you will need to report your most recent estimate of the annual average contribution from I/I (otherwise indicate NA, under threshold). In addition, you need to provide the date for your most recent I/I evaluation (whether in-house or hired out) and the date, if any, that a summary report was sent to DEQ.

#### **4. Influent Monitoring**

Describe the actual physical location(s) for any influent monitoring, including taking samples (grab, instantaneous, or composite) prior to treatment, and measuring flow into the lagoon system.

#### **5. Lagoon Flow Data**

a. Design flow. The average daily design flow is the engineering design assumption of influent that was used in sizing the lagoon system. Provide the current average daily design flow, in million gallons per day (mgd) based on the most recent facility design. Provide a historic average daily flow rate using engineering design data as close to 1993 as you have available. Indicate the year of the data.

b. Actual flow. From your monitoring records, provide the most recent three rolling years of actual discharge flow rates. For instance, if your NOI was submitted in October, you would provide September to September discharge data. Include both the average daily discharge and the maximum daily discharge for each period. Note the total number of months with discharge during each of the three years reported.

### **Section F – Treatment and Discharge Methods**

#### **1. Description of Treatment**

Indicate whether the current design of the lagoon system, as approved in the latest plan & specification review (if applicable), is facultative or aerated. Complete the requested information for the relevant design type. For all facilities, indicate what year the lagoons were installed and the date of the engineering approval, if applicable. In addition, indicate the latest date the lagoon system was modified and the related engineering approval date, if applicable.

Indicate what type of effluent disinfection, if any, is employed prior to discharge.

#### **2. Discharge Method**

(a) Note if your lagoon system currently discharges as a batch or is non-discharging (If the system is designed to be non-discharging and does not actually discharge it is optional for the facility to obtain MPDES coverage). For batch dischargers, identify the number of batches per year, the average duration of each batch, and the average flow rate in mgd when discharging.

(b) In addition to the surface water discharge method, indicate whether effluent is discharged/used by other methods, including discharged to a surface impoundment for evaporation; land applied for irrigation; transported to another treatment works by pipeline, truck, or other methods; or discharged to groundwater or well injection. Except for transporting to another treatment works, all of these alternate disposal methods have required engineering review and approval if they are new or modified.

## **Section G - Effluent Monitoring Information:**

Summarize all monitoring results for each of the pollutants listed in this section taken by the facility within the past 4.5 years. If there has been no discharge in this timeframe, indicate "Not Applicable (NA)." Data reported must be representative of current operation. Approved methods as specified in 40 CFR 136 must be used for all analyses. For pH, temperature, dissolved oxygen, oil and grease, *E.Coli* bacteria, and Total Residual Chlorine, grab/instantaneous samples are required. For all other pollutants, 24-hour composite samples must be used except a minimum of one grab sample may be taken for effluents from impoundments with a retention period greater than 24-hours. Composite, grab, and instantaneous samples are defined as follows:

- a. **"Composite sample"** means a sample composed of four or more discrete aliquots over a 24-hour period. However, a minimum of one grab sample may be taken for effluents from holding ponds or other impoundments with a retention period greater than 24 hours. In addition, the department may waive composite sampling for any outfall for which the applicant demonstrates that the use of an automatic sampler is infeasible and that the minimum of four grab samples will be a representative sample of the effluent being discharged.
- b. **"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.
- c. **"Instantaneous Measurement"**, for monitoring requirements, means a single reading, observation, or measurement.

For the maximum column, provide the highest single result for each parameter (other than dissolved oxygen which is the minimum result). For the long-term average column, provide the average of all representative results. Note that pH is an exception: report the lowest single result as requested.

For discharging facilities, specify whether your facility requests to have CBOD<sub>5</sub> replace BOD<sub>5</sub> as the technology-based effluent limit for the term of the General Permit renewal.

## **Section H. Demonstration of eligibility for Less Stringent Technology-based Effluent Limits**

For discharging facilities, the applicable domestic wastewater technology-based effluent limits (TBELs) are treatment requirements for 5-day Biochemical Oxygen Demand (BOD<sub>5</sub>) and Total Suspended Solids (TSS), as contained in 40 CFR 133. There are three levels of treatment required based on facility characteristics:

- **National Secondary Standards (NSS)**  
30 mg/L average monthly and 45 mg/L average weekly limits for BOD<sub>5</sub> and TSS;
- **Treatment Equivalent-to-Secondary (TES)**  
45 mg/L average monthly and 45 mg/L average weekly limits for BOD<sub>5</sub> and TSS; and
- **Alternative State Requirements (ASR)**  
100 mg/L average monthly and 135 mg/L average weekly, for TSS only.

See the Fact Sheet for more information on these TBELs. **All applicable discharging facilities covered under this General Permit, unless they demonstrate their eligibility to meet TES or ASR, will be required to meet NSS effluent limits.**

**Step One:** Applicants must review recent (2 to 4.5 years) TSS and BOD<sub>5</sub> effluent data from their facility and calculate the 95<sup>th</sup> percentile of the monthly average and 95<sup>th</sup> percentile of the weekly average for both pollutants. This is easily performed by the following function in Excel: “=PERCENTILE (<cell array>, 0.95).” Likewise, calculate the 5<sup>th</sup> percentile of the percent removal for BOD<sub>5</sub> performed by the following function in Excel: “=PERCENTILE (<cell array>,

0.05)." Provide the date range for the data used in this determination. If you do not have the capability to perform these excel functions, contact DEQ at 444-5546 to discuss other avenues.

Indicate on the NOI form whether you are requesting less stringent TSS or BOD<sub>5</sub> limits (i.e. if your 95<sup>th</sup> percentile is greater than 30 mg/L average monthly or 45 mg/L average weekly) and provide the calculated 95<sup>th</sup> percentile concentrations.

→ In addition, in order to be granted the less stringent treatment requirements, you must certify that the facility has proper operation & maintenance (O&M). Include a written justification in the space provided, or attach additional sheet(s) as necessary.

**Step Two:** Review your determination of the 95<sup>th</sup> percentile of your facility's TSS concentrations and the 5<sup>th</sup> percentile BOD<sub>5</sub> percent removal for the past 2 to 4.5 years in Step One. Compare your operations to the three treatment levels. If you do not meet all the criteria for TES or ASR, your facility will be subject to NSS. Indicate which of the three treatment levels you are requesting.

**Step Three:** Review your determination of the 95<sup>th</sup> percentile of your facility's BOD<sub>5</sub> effluent concentrations for the past 2 to 4.5 years in Step One. Compare your operations to the two BOD<sub>5</sub> treatment levels. If you do not meet all the criteria for TES, your facility will be subject to NSS. Indicate which of the treatment levels you are requesting.

### **Section I. Sludge Handling**

All facilities are required to report whether sludge has been removed from one or more of their lagoons within the past five years. If not, the most recent year that sludge has been removed should be provided. In addition, please report any sludge depth evaluation studies conducted within the past five years.

### **Section J. Sage Grouse Habitat – Applicable Facilities**

Projects within designated sage grouse habitat are addressed through the Montana Sage Grouse Habitat Conservation Program (the Program). The program has a role of consultation, recommendation, and facilitation. Certain limitations or conditions may apply to a project within designated sage grouse habitat. Any recommendations or mitigations determined by the program are provided to a project proponent in a consultation letter.

The Montana Sage Grouse Oversight Team (MSGOT) has recognized that cities and towns do not provide sagebrush habitat. MSGOT approved an exemption from the consultation requirements of Executive Order 12-2015 for proposed projects that would occur wholly within existing boundaries of incorporated cities and towns. This geographically limited exception to the consultation requirements applies to any activity that would wholly occur within the boundaries of incorporated cities and towns as of March 28, 2016. These boundaries are shown on the website at <https://sagegrouse.mt.gov/ProgramMap>.

The Notice of Intent (NOI) forms require consultation with the Program for projects within designated sage grouse habitat and subject to Executive Order 12-2015 and 21-2015 for any new domestic lagoons, or lagoons that have new ground disturbance or disrupting activities (see the MSGOT Oversight Team Meeting Exception Memo from January 30, 2017. The resulting consultation letter must be submitted as part of a complete NOI package and any recommendations and mitigation actions will be included in an authorization under the General Permit. However, projects not in designated sage grouse habitat or that are renewals of existing unaltered domestic sewage treatment lagoons, are not subject to these sage grouse consultation NOI and authorization requirements.

## **Section K – New Facilities**

Any new domestic sewage treatment lagoon requesting coverage under this General Permit is required to complete the Natural Resource Information System (NRIS) and Montana State Historic Preservation Office (SHPO) information requested.

- New discharging facilities may only apply for coverage under this General Permit if the discharge is to an ephemeral drainage. For all other new discharging facilities, an individual MPDES permit is required.
  - New non-discharging facilities are not limited to ephemeral drainages.
- A. Contact the Montana Natural Heritage Program (MNHP), <http://mtnhp.org/>, and request a project review for the proposed industrial activity. Then describe the potential impacts of the proposed operation or facility on unique ecological resources, species of special concern, including vegetation, wildlife, fish or aquatic resources, or habitat. Attach analysis from NRIS and any applicable maps or additional documentation.
  - B. Contact the Montana State Historic Preservation Office (SHPO), <http://mhs.mt.gov/shpo/>, and request a project review for the proposed industrial activity. Then describe the potential impact of the proposed activity on any historical, cultural, or archeological resources. Attach analysis from SHPO and any applicable maps or additional documentation.

## **Section L - Certification**

The NOI form certification must be completed by a responsible official with authority as a signatory for the entity identified as the “owner/operator” in Section C. The requirements for the NOI signatory are described in ARM 17.30.1323(1). For a domestic sewage lagoon this is typically the Mayor, Town Manager, or Sewer Board President.

## **Section M – Authorized Representative**

The responsible official (Signatory Authority) can designate a contact or several contacts (name or title) that will be considered duly authorized to sign the electronic Discharge Monitoring Reports (NetDMRs) and other reports.

**Attachment B: Non-Discharging Facility Release Reporting Form**



**WATER  
PROTECTION  
BUREAU**

Agency Use
Permit No.:
Date Rec'd
Amount Rec'd
Check No.
Rec'd By

**FORM  
Release**

**Domestic Sewage Treatment Lagoon  
Non-Discharging Facility Release Form**

**READ THIS BEFORE COMPLETING FORM:** This form is for any domestic sewage treatment lagoon permitted under the *General Permit for Domestic Sewage Treatment Lagoons – Batch and Non-Discharging Facilities*, as a non-discharger. It is to be used whenever a non-discharging facility has a release, whether planned or not.

**Section A - Facility Information:**

MPDES Permit Authorization Number: **M T G 5 8 0** \_\_\_\_\_

Owner/Operator Name (Organizational/Permittee name):

Facility Name:

Facility Location (site physical address or directions):

City, State, Zip:

Latitude:

Longitude:

Receiving Water:

**Section B - Facility Contact:**

Facility Contact:

Title:

Organizational Name:

Mailing Address:

City, State, and Zip:

Phone Number: (        )

Email: \_\_\_\_\_

**Section C - Release Information**

Release Start Date and Time: \_\_\_\_\_ Release End Date and Time: \_\_\_\_\_

Duration of Release (hours) \_\_\_\_\_

Flow Rate, average: \_\_\_\_\_ million gallons per day (MGD)

Flow Rate, maximum: \_\_\_\_\_ MGD

Release Volume (total) \_\_\_\_\_ million gallons. Method of estimation: \_\_\_\_\_

### Section C - Release Information (con't)

Downstream extent of discharge (ground, surface water description/names) \_\_\_\_\_

Was release part of an anticipated bypass for essential maintenance?

If yes, Date of written notification submitted to DEQ \_\_\_\_\_

If no, Date/time 24-hour oral notification provided? \_\_\_\_\_

DEQ person contacted \_\_\_\_\_

Date the 5-day written report was submitted? \_\_\_\_\_

Cause of the release event? \_\_\_\_\_

### Section D - Results from Required Monitoring for Release

Parameter	Units	Average	Maximum	# samples	Lab Analysis?
BOD <sub>5</sub>	mg/L				Yes
TSS	mg/L				Yes
pH	s.u.	Range:			No (log)
E.coli Bacteria	#org/100 mL				Yes
Oil & Grease	Yes/No				Yes (if visually observed)
	If yes mg/L				
TRC <sup>(1)</sup>	µg/L				No (log)

(1) TRC only if effluent is chlorinated or significant industrial chlorine contribution.

### Section E - CERTIFICATION

#### Signatory Information:

This Form must be completed, signed, and certified as follows [ARM 17.30.1323(1)]:

- For a corporation, by a principal officer of at least the level of vice president;
- For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
- For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking elected official.

#### All Permittees Must Complete 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 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. [75-5-633, MCA]

**A. Name (Type or Print)**

**B. Title (Type or Print)**

**C. Phone No.**

**D. Signature**

**E. Date Signed**

## **INSTRUCTIONS FOR RELEASE FORM**

### **General Permit for Domestic Sewage Treatment Lagoons – Batch and Non-Discharging Facilities (MTG580000)**

The *Domestic Sewage Treatment Lagoon Non-Discharging Facility Release Form* (Form) is to be completed by the owner/operator of a non-discharging domestic sewage treatment lagoon whenever the facility has a release, whether planned or not.

General permit documents and related forms are available on the DEQ website at: <https://deq.mt.gov/water/assistance> or from DEQ by calling (406) 444-5546.

Please type or print legibly. Responses must be self-explanatory and must not refer exclusively to attached maps, plans, or documents. Mail the completed form to:

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

\*\*\*\*\*

### **SPECIFIC ITEM INSTRUCTIONS**

#### **Section A –Facility Information**

Provide the facility's 9-digit MPDES permit authorization number, which begins with MTG580.

Provide the name of the owner/operator for the facility. This is typically “The Town of X” or “The City of X.” **PLEASE NOTE THAT THE PERSON WHO IS THE CERTIFIED OPERATOR IS NOT THE “Owner/Operator.”**

Give the facility's official or legal name, which is the name of the physical site from which pollutants or wastes are, or will be, treated. The facility may be a publicly- or privately-owned property. Most common is “CITY/TOWN NAME Wastewater Treatment Facility (WWTF).”

Give the physical address or location of this facility. The location may be a physical mailing address or a description of how the site may be accessed. P.O. boxes are not acceptable. Provide the latitude and longitude for the location of the approximate center point of the facility. It is preferred the latitude and longitude location be specified in decimal degrees, accurate to the fourth decimal place. If decimal degrees are not used, then the latitude and longitude must be provided in degrees, minutes, and seconds, accurate to the nearest 15 seconds.

Lastly, identify the receiving waterbody that was impacted by the release. If the initial receiving waterbody is unnamed, indicate “unnamed ditch/tributary to X,” where “X” is the first named receiving waterbody. If the release didn't reach state surface waters, indicate “Not Applicable (NA).”

#### **Section B – Facility Contact**

Provide the name, title, and contact information for a Facility Contact. The Facility Contact should be someone who has a thorough understanding of the operation of the treatment works and has been duly authorized by the Signatory Authority (see ARM 17.30.1323(2)). DEQ may contact this person if there are any questions about this release.

### **Section C – Release Information**

Provide the requested release information, including date/time beginning and end of the release, the average and maximum flow rate in million gallons per day (MGD), and the total volume of the release. For the total volume, indicate what method you used to provide the approximation of the total amount discharged.

In addition, provide the extent to which the discharge traveled, including whether it reached state surface waters. Lastly, answer whether the release was part of an anticipated bypass for essential maintenance and provide all DEQ contact information as required.

### **Section D– Results from Required Monitoring for Release**

The General Permit includes a monitoring requirement for any discharge from a domestic sewage treatment lagoon permitted as a non-discharging facility. Conduct the monitoring as required. Once the lab analysis has been received, provide the required information as well as a copy of each lab analysis that was conducted. For any results that were non-detect, indicate “< X,” where “X” is the lab’s reporting level (RL) or Practical Quantitation Limit (PQL).

### **Section E - Certification**

The Release form certification must be completed by a responsible official with authority as a signatory for the entity identified as the “owner/operator” in Section A.

The requirements for the signatory are described in ARM 17.30.1323(1). For a domestic sewage lagoon this is typically the Mayor, Town Manager, or Sewer Board President.