



Water Quality Division

Montana Pollutant Discharge Elimination System (MPDES) - Fact Sheet

Permittee:	Town of Denton
Permit No.:	MT0022462
Receiving Water:	Wolf Creek
Facility Information	
Name:	Denton Wastewater Treatment Facility
Location:	47° 19'23.1" N latitude, 109° 56'12.9" W longitude ¼ mile Northeast of Denton, MT
Contact:	Robert Miller, Director of Public Works Town of Denton PO Box 986 Denton, MT 59430
Fee Information	
Type of Facility:	Minor Publicly Owned Treatment Works
Number of Outfalls:	1 (For Fee Determination Only)
Type of Outfall:	001 – Facility Discharge
Fact Sheet Date:	July 2019

I. Summary

Department of Environmental Quality (DEQ) proposes to renew the Montana Pollutant Discharge Elimination System (MPDES) permit for town of Denton Wastewater Treatment Facility (WWTF), MT0022462. This fact sheet documents the legal requirements and technical rationale that serve the decision-making process involved with developing effluent limits, monitoring and reporting requirements, and special conditions which are specific to Denton.

A. Permit Status

The previous permit became effective on August 1, 2010 and expired on July 31, 2015. DEQ received the MPDES renewal permit application (Forms 1 and 2A) for the Town of Denton on January 29, 2015. DEQ considered the application complete and administratively extended the permit on August 5, 2015.

B. Proposed Changes to Effluent Limits

For this permit renewal, DEQ proposes the following:

- Discharge is prohibited during the nutrient season of July 1 – September 30
- Revised effluent monitoring location for ammonia
- Effluent monitoring requirements for chlorine, iron, total dissolved solids, and selenium are removed

II. Facility Information

A. Facility Description and Design Criteria

The Town of Denton WWTF serves the town with a current population of approximately 275 people. The facility consists of a three-cell facultative lagoon. The facility has a maximum daily design flow of 0.175 million gallons per day (mgd) and an average daily design flow of 0.044 mgd. The facility operates as a batch-discharge facility. A diagram of the facility layout is included in Attachment A.

The facility has not been significantly modified since initial construction. In 2017, slip-lining of one manhole was completed to reduce inflow and infiltration.

B. Effluent Quality and Existing Permit Requirements

Effluent data from January 2017 through December 2018 is used as the period of record (POR) for this facility. In December 2016, the facility was inspected and was required to raise the effluent level of the lagoons to ensure proper operation. Prior to this change, the facility consistently exceeded limits. Effluent pollutant levels have been reduced significantly, which is representative of future facility operations.

Table 1: Effluent Characteristics for the Period of Records

Parameter	Location	Units	2010 Permit Limit	Minimum Value	Maximum Value	Average Value	Number of Samples
Flow, Daily Average	Effluent	mgd	(1)	0.035	0.044	0.039	11
Flow Duration	Effluent	Days/month	(1)	0	31	17.8	N/A
5-Day Biochemical Oxygen Demand (BOD ₅)	Influent	mg/L	(1)	115.6	2010	826.2	7
	Effluent	mg/L	45/30 ⁽²⁾	4	33	13.3	11
	NA	% removal	85	6	99.5	79	11
	Effluent	lb/day	16.5/11 ⁽²⁾	1.4	9.9	4.2	11
Total Suspended Solids (TSS)	Influent	mg/L	(1)	73	10090	2878	7
	Effluent	mg/L	65/45 ⁽²⁾	12	98	26.6	11
	NA	% removal	65	30	99.5	87.9	11
	Effluent	lb/day	23.8/16.5 ⁽²⁾	5.5	35.9	8.9	11
pH	s.u.	Effluent	6.0 – 9.0	6.8	8.9	8.2	39
Temperature	°C	Effluent	(1)	1.3	22.5	12.8	11
<i>Escherichia coli</i> , November 1 – March 31	Effluent	CFU per 100 mL	252/126 ⁽³⁾	1	68	20	8
<i>Escherichia coli</i> , April 1 – October 31	Effluent	CFU per 100 mL	1260/630 ⁽³⁾	---	---	---	0
Total Residual Chlorine	Effluent	mg/L	0.011	---	---	---	0
Oil and Grease ⁽⁵⁾	Effluent	mg/L	(1)	0	3.0	1.7	7
Iron	Effluent	mg/L	(1)	0.030	0.090	0.050	3
Selenium	Effluent	mg/L	(1)	0.026	0.052	0.035	3
Total Dissolved Solids	Effluent	mg/L	(1)	1640	1770	1727	3
Total Ammonia as N	Effluent	mg/L	(1)	0.00	3.79	1.44	9
Nitrate + Nitrite as N	Effluent	mg/L	(1)	0.12	2.73	1.70	3
Total Kjeldahl Nitrogen	Effluent	mg/L	(1)	4.40	5.20	4.95	4
Total Nitrogen	Effluent	mg/L	(1)	5.20	7.20	6.23	4
		lb/day	(1)	1.51	2.60	2.03	4
Total Phosphorus as P	Effluent	mg/L	(1)	0.55	0.65	0.59	4
		lb/day	(1)	0.18	0.20	0.19	4

Footnotes:

- (1) No limit in previous permit; monitoring requirement only.
- (2) Weekly average/Monthly average
- (3) Limitation from April 1 through October 31.
- (4) Instantaneous maximum, monthly average limit.
- (5) Data from 2013-2018 shown. No data was collected during the POR.

C. Compliance History

Two MPDES permit compliance evaluation inspections have been conducted at the Denton facility since the 2010 permit was issued. The first was conducted on December 12, 2011, and the most recent on December 14, 2016. Both inspections found multiple violations including the following:

- Discharge rate in excess of the design flow rate,
- Excessive inflow and infiltrations,
- Permit limit exceedances for BOD₅ & TSS,
- Missing, incomplete and late DMRs,
- Incorrect pH meter calibration,
- Failure to sample at the required frequency,
- Failure to submit annual reports addressing *E. Coli* and Ammonia treatment.

Based on a review of the administrative file and DMRs, the Denton WWTF had the following exceedances of their effluent limits during the term of the permit.

Table 2: Effluent Limit Exceedances During the Permit Term								
Pollutant	Averaging Period	2012	2013	2014	2015	2016	2017	2018
BOD ₅	Weekly Average	---	2	2	---	---	---	---
	Monthly Average	---	3	9	---	---	---	---
	% Removal	---	1	2	---	---	1	2
TSS	Weekly Average	---	9	3	8	4	---	1
	Monthly Average	---	8	9	6	3	1	---
	% Removal	---	1	2	---	---	1	1
<i>Escherichia coli</i>	Daily Max.	---	---	---	1	---	---	---
	Monthly Average	---	---	---	2	---	---	---

III. Proposed Technology-Based Effluent Limits (TBELs)

A. Applicable Guidelines

Technology-based effluent limits (TBELs) represent the minimum treatment requirements implemented in MPDES permits. 40 CFR 133 defines minimum treatment requirements for secondary treatment or equivalent for POTWs as measured by pH, BOD₅, TSS, and percent removal of BOD₅ and TSS. The Denton WWTF is currently being held to National Secondary Standards (NSS) for pH and BOD₅, and Treatment Equivalent to Secondary (TES) standards for TSS.

Denton has consistently met the BOD₅ limits during the period of record. BOD₅ limits will be retained at the NSS levels.

As a facultative lagoon, the Denton WWTF may be considered for an adjusted total suspended solids limitation based on 40 CFR 133.105. DEQ has reviewed the most recent two years of effluent data from the facility, and has determined that the facility is generally able to comply with the current TSS limitations based on TES. The facility has had one exceedance of the current

monthly average limit, but TSS values are generally trending downward as a result of improved operation of the facility.

Based on these considerations, the monthly and weekly TSS limitations continue to be based on TES at 45 and 65 mg/L, respectively, and the percent removal requirements will remain at the TES level of 65%.

B. Mass-Based Limit Calculations

Effluent limits must be expressed in terms of mass and are identified as load (lbs/day) when suitable. Exceptions include parameters that cannot be appropriately expressed in mass, such as pH and temperature. The following equations were used to calculate the BOD₅ and TSS mass-based load allocations using the TBEL concentrations associated with national secondary treatment standards, the design flow of 0.044 mgd, and a conversion factor:

BOD₅: Monthly Load = 0.044 mgd x 30 mg/L x 8.34 = 11.0 lbs/day
 Weekly Load = 0.044 mgd x 45 mg/L x 8.34 = 16.5 lbs/day

TSS: Monthly Load = 0.044 mgd x 45 mg/L x 8.34 = 16.5 lbs/day
 Weekly Load = 0.044 mgd x 65 mg/L x 8.34 = 23.9 lbs/day

Load limits for BOD₅ and TSS will apply to the effluent and the monthly average load limit will be maintained at the more stringent of the Nondegradation load allocations or mass-based loading limits, as discussed next.

C. Nondegradation Load Allocations

The Denton WWTF is an existing source and is not a new or increased discharge. Long-term nondegradation threshold values of 19 lbs/day for BOD₅ and 42 lbs/day for TSS were established in the 1995-issued permit. The current mass based limits are lower than the established non-degradation values and will be the basis for the final TBEL Limits.

D. Final Technology-Based Effluent Limits

This permit will retain TBELs based on National Secondary Standards for BOD₅ and Treatment Equivalent to Secondary for TSS. Technology-based limits for pH require levels between 6.0-9.0 standard units.

Table 3. Technology-Based Effluent Limits for Outfall 001			
Parameter	Units	Effluent Limits	
		Average Monthly	Average Weekly
5-Day Biochemical Oxygen Demand (BOD ₅)	mg/L	30	45
	% removal	85%	-
	lb/day	11.0	16.5
Total Suspended Solids (TSS)	mg/L	45	65
	% removal	65%	-
	lb/day	16.5	23.9
pH	s.u.	6.0 – 9.0 (instantaneous)	

IV. Water Quality-Based Effluent Limitations

A. Applicable Guidelines

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

B. Receiving Water

The Denton WWTF discharges to Wolf Creek, which is classified as “C-3” according to Montana Water Use Classifications. Waters classified C-3 are to be maintained suitable for bathing, swimming, and recreation; growth and propagation of non-salmonid fishes and associated aquatic life, waterfowl, and furbearers. The quality of these waters is naturally marginal for drinking, culinary, and food processing purposes, agricultural and industrial water supply.

The segment of Wolf Creek which the facility discharges to has not been assessed for impairments. Stream segment MT41S002-020 of Wolf Creek beginning approximately 10.5 miles downstream of the discharge point has been assessed, and is listed on the 2018 303(d) list as impaired. The lower segment of Wolf Creek is listed as not supporting aquatic life or warm water fishery due to iron, selenium and total dissolved solids. A Total Maximum Daily Load (TMDL) has not yet been developed for Wolf Creek.

Wolf Creek near the discharge has estimated low flows of 0.23 cfs, (0.15 mgd) for the 7Q10 and 1.12 cfs (0.72 mgd) for the summer 14Q5. Low flows were estimated using USGS StreamStats statistical procedures, which are summarized in Attachment B. Ambient water quality data for pH, temperature and total ammonia was collected by Denton from April 2004 through April 2009. The available ambient water quality data is summarized in Table 4.

Table 4. Ambient Water Quality Data Summary				
Parameter	Units	Mean Average Value	75th Percentile	Number of Samples
pH	s.u.	7.7	7.9	38
Temperature	°F	43.4	56.6	38
Total Ammonia as N	mg/L	0.36	0.10	32

C. Mixing Zone

A mixing zone is an area where the effluent mixes with the receiving water and certain water quality standards may be exceeded. Mixing zones must have the smallest practicable size, a minimum practicable effect on water uses, and definable boundaries. DEQ sets the available dilution flow on a parameter-by-parameter basis to assess reasonable potential (RP) and to achieve acute, chronic, and human health standards.

1. Mixing Zone Requirements:

- Acute water quality standards for aquatic life may not be exceeded in any portion of the mixing zone unless the Department finds that allowing minimal initial dilution will not threaten or impair existing uses.
- An effluent in its mixing zone may not block passage of aquatic organisms nor may it cause acutely toxic conditions.
- No mixing zone will be granted that will impair beneficial uses.
- Aquatic life-chronic, aquatic life-acute and human health standards may not be exceeded outside of a designated mixing zone.
- DEQ may require information from the permittee before determining appropriate mixing and the conditions which should be applied.

Denton has not requested a mixing zone for any parameter, and no standard or source specific mixing zones will be granted in issuing this permit.

D. Applicable Water Quality Standards & Pollutants of Concern

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

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

The need for additional WQBELs is based on a reasonable potential (RP) analysis for pollutants to determine if numeric or narrative water quality standards may be exceeded. Pollutants present in treated effluent from municipal wastewater treatment facilities, and those that are specific to Denton, are summarized in Table 5.

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

E. Reasonable Potential Analysis

DEQ uses a statistical approach outlined in Chapter 3 of EPA’s Technical Support Document for Water Quality-based Toxics Control (TSD) to determine reasonable potential for individual pollutants to exceed water quality standards and calculate WQBELs for those pollutants.

1. **Critical Effluent Concentration (Cd) Calculation:** The facility’s maximum reported effluent concentration (Cmax) is converted into the projected critical effluent concentration (Cd). This accounts for variation in effluent concentration.
 - First, the statistical TSD 3-2 multiplier is determined by the data set, coefficient of variation (CV), and sample size at the 95th percentile confidence interval. A default CV of 0.6 is used if there are less than 10 samples. Then the TSD 3-2 multiplier is applied to the facility’s maximum reported effluent concentration (Cmax) to determine the critical effluent concentration (Cd).
2. **Determination of RP Calculation:** DEQ uses a mass balance equation (Equation 1) to determine RP and develop WQBELs, Technical Support Document for Water Quality-based Toxics Control, March 1991 (TSD), EPA/505/2-90-001.

$$C_r = \frac{Q_d C_d + Q_s C_s}{Q_d + Q_s} \quad (\text{Equation 1})$$

Where:

- C_r = the resulting receiving water concentration, mg/L or µg/L
- Q_d = critical discharge rate (POTW average daily design flow)
- Q_s = critical receiving water low-flow (available dilution of 7Q10 or seasonal 14Q5)
- C_d = critical effluent pollutant concentration (maximum discharge concentration x TSD multiplier)
- C_s = critical ambient pollutant concentration (Wolf Creek 75th percentile concentration)

Tables 6 and 7 summarize the critical effluent and reasonable potential calculations for each pollutant where sufficient data was available to do so. See Attachment C for complete RP calculations.

Table 6. Critical Effluent Concentration Summary						
Pollutant	CV	Sample Size	→ TSD Multiplier	× Maximum Effluent Concentration	=	Critical Effluent Concentration
Nitrate + Nitrite	0.6	3	3.00	2.73 mg/L		8.2 mg/L
Oil and Grease	0.6	7	2.01	3 mg/L		6 mg/L
Iron	0.6	10	1.45	60 µg/L		93 µg/L

Table 7. Reasonable Potential Analysis										
Pollutant	Dilution	Projected Receiving Water Conc. (C_r)					Reasonable Potential			
		C _s	• Q _s	+ C _d	• Q _d	/ Q _r	C _r	< or >	WQS	RP?
	%	(mg/L)	(mgd)	(mg/L)	(mgd)	(mgd)	(mg/L)	< or >	(mg/L)	(yes/no)
Nitrate + Nitrite	0	N/A	0	8.2	0.044	0.044	8.2	<	10	No
Oil and Grease	0	N/A	0	6.0	0.044	0.044	6	<	10	No
	%	(µg/L)	(mgd)	(µg/L)	(mgd)	(mgd)	(µg/L)	< or >	(µg/L)	(yes/no)
Iron	0	N/A	0	93	0.044	0.044	213	<	1000	No

Further discussion of each parameter’s reasonable potential analysis and WQBEL development is presented below:

Conventional Pollutants:

BOD₅, TSS, and pH – The facility provides a significant reduction in biological material and solids through BOD₅, TSS, and pH TBELs (section III). No additional WQBELs will be required for these parameters.

Oil and Grease (O&G) – Denton was shown to not have reasonable potential to exceed the 10 mg/L limit. Monitoring O&G must be conducted semiannually with additional visual monitoring during periods of discharge. If visual monitoring indicates the presence of oil and grease, an additional grab sample must be submitted for analysis and discharge must cease if the concentration is found to be greater than the standard of 10 mg/L

Escherichia coli (E. coli) Bacteria Limits – The applicable standards for *E. coli* are:

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

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

These criteria were included in the 2010 permit as average monthly and average weekly limits along with regular monitoring, which will be retained in the proposed permit. The units for *E. Coli* monitoring will be changed to “number of organisms/100 mL”, which will incorporate both cfu and MPN.

Non-conventional Pollutants:

Ammonia, as N: DEQ is not developing water quality based effluent limits for ammonia in this permit renewal. DEQ proposes to move the effluent monitoring location to the end of the pipe that conveys the effluent to Wolf Creek. Because ammonia is a dynamic pollutant that rapidly changes forms, moving the monitoring to the end of the conveyance will provide a more accurate dataset of ammonia concentrations reaching the surface water, Wolf Creek.

Nitrate plus Nitrite, as N (NO₃/NO₂) – The human health water quality standard for NO₃/NO₂ is 10 mg/L. Footnote 16 of DEQ-7 states that surface or groundwater concentrations may not exceed these values. Shown in Table 7, the projected maximum concentration of N+N from the facility is less than the human health standard, therefore no limit will be included. Quarterly monitoring for N+N will be retained.

Nutrients: Total Nitrogen (as N) and Total Phosphorus (as P): DEQ has adopted Base Numeric Nutrient Standards found in Circular DEQ-12A. Denton is located within the Northwestern Great Plains ecoregion, which has the following seasonal numeric nutrient standards, applying from July 1 through September 30th:

TN: 1.30 mg/L

TP: 0.15 mg/L

Ambient data is unavailable for these parameters, so dilution was not considered in the reasonable potential analysis. Based on the projected maximum effluent values, both Total Nitrogen and Total Phosphorus are likely to exceed the numeric nutrient standards even with dilution granted. Because Denton discharges infrequently and is capable of not discharging during time when nutrient standards apply, discharge will be prohibited during the nutrient season of July 1st through September 30th.

Toxic Pollutants:

Concentrations of carcinogenic, bio-concentrating, toxic, or harmful parameters which would remain in the water after conventional treatment must not exceed the applicable standards specified in DEQ-7.

Iron - Denton conducted monitoring for total recoverable iron during the last permit cycle based on the iron impairment of Wolf Creek. As shown in Table 4, Denton does not have RP to exceed water quality standards for total recoverable iron. Monitoring will be discontinued.

Total Dissolved Solids - Denton conducted monitoring for total dissolved solids (TDS) during the last permit cycle. However, no numeric TDS standard exists for Wolf Creek and numeric RP could not be assessed. Denton is a small municipal lagoon system with no industrial dischargers and is unlikely to significantly contribute to the TDS impairment. Monitoring will be discontinued.

Selenium - Denton conducted monitoring for total recoverable selenium during the last permit cycle based on the selenium impairment of Wolf Creek. Probable impairment sources include natural sources and crop production, and do not include municipal point source discharges. Denton has no industrial contributors, and is not adding or concentrating selenium in the discharge. Monitoring will be discontinued.

Whole Effluent Toxicity (WET) Testing - State regulation requires that state water be free from substances attributable to municipal waste that create condition which are harmful or toxic to human, animal, plant or aquatic life.

The Denton WWTF is a small discharge with no identified industrial contributions, evidenced in the 2017 EPA Pretreatment inspection. No WET testing will be required with this permit cycle.

F. Proposed WQBEL Limits

The prohibition of discharge during the nutrient season will be included in this permit, and WQBELs for pH and E. coli are retained.

V. Final Effluent Limits

The final effluent limits in Table 10 will be applied to the discharge at Outfall 001 beginning on the permit effective date and lasting through the term of the permit.

Table 10. Outfall 001 Final Effluent Limits ⁽¹⁾				
Parameter	Units	Maximum Daily Limit	Average Weekly Limit	Average Monthly Limit
5-Day Biochemical Oxygen Demand (BOD ₅)	mg/L	--	45	30
	lbs/day	--	16.5	11.0
	% removal	--	--	85%
Total Suspended Solids (TSS)	mg/L	--	65	45
	lbs/day	--	23.9	16.5
	% removal	--	--	65%
pH	s.u.	6.0 – 9.0		
<i>E. coli</i> Bacteria – summer ⁽²⁾	org/100 mL	--	252	126
<i>E. coli</i> Bacteria – winter ⁽²⁾	org/100 mL	--	1,260	630
Total Nitrogen, as N (TN)	No discharge July 1 – September 30			
Total Phosphorus, as P (TP)	No discharge July 1 – September 30			
⁽¹⁾ See Definitions section at the end of the MPDES permit for explanation of terms ⁽²⁾ <i>Escherichia coli</i> bacteria - summer is April 1 through October 31, winter is November 1 through March 31				

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

There shall be no discharge which causes visible oil sheen in the receiving water.

There shall be no discharge that settles to form objectionable sludge deposits or emulsions beneath the surface of the water or upon adjoining shorelines.

VI. Monitoring and Reporting Requirements

A. Outfall 001 and Influent

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

Monitoring will start with the effective date of the permit and last for the duration of the permit cycle. All analytical procedures must comply with the specifications of 40 CFR Part 136. Denton must submit NetDMR results for each month by the 28th of the following month. Effluent samples must be collected at the outlet structure, except for ammonia, which must be collected at the end of the pipe discharging into Wolf Creek. Influent samples must be taken after all wastewater sources have combined, prior to discharge into Primary Cell #1, at the influent splitter manhole, unless another location is identified and approved by DEQ, in writing.

The monitored parameters, their respective monitoring locations, and frequency requirements are presented in Table 11. Monitoring is required during periods of discharge. If no discharge occurs during the reported period, "no discharge" shall be reported on the NetDMR.

Table 11. Monitoring Requirements for Outfall 001

Parameter	Units	Sample Location	Type ⁽¹⁾	Minimum Frequency ⁽²⁾	RRV ⁽³⁾
Flow	mgd	Effluent	1/Week	Instantaneous	--
Flow Duration	days	Effluent	1/Month	Calculated	--
5-Day Biochemical Oxygen Demand (BOD ₅)	mg/L	Influent ⁽³⁾	1/Quarter	Composite	2
	mg/L	Effluent	1/Week	Composite	2
	% Removal	NA	1/Month	Calculated	--
	lb/day ⁽⁴⁾	Effluent	1/Month	Calculated	--
Total Suspended Solids (TSS)	mg/L	Influent ⁽³⁾	1/Quarter	Composite	10
	mg/L	Effluent	1/Week	Composite	10
	% Removal	NA	1/Month	Calculated	--
	lb/day ⁽⁴⁾	Effluent	1/Month	Calculated	--
pH	s.u.	Effluent	1/Week	Instantaneous	0.1
Temperature	°C	Effluent	1/Week	Instantaneous	0.1
<i>E. coli</i> Bacteria ⁽⁵⁾	org /100ml	Effluent	1/Month	Grab	1/100mL
Oil and Grease ⁽⁶⁾	mg/L	Effluent	2/Year	Grab	1.0
Total Ammonia, as N	mg/L	Effluent ⁽⁷⁾	1/Month	Grab	0.07
Nitrate + Nitrite, as N	mg/L	Effluent	1/Quarter	Grab	0.02

(1) See Definition section at end of permit for explanation of terms.
 (2) Monitoring is required oil and any calendar period where there is a discharge.
 (3) Required reporting value. Analysis must achieve these, or lower, RRVs.
 (4) Methods for calculating mass load (lbs/day) and % removal are provided in the permit.
 (5) Report the geometric mean if more than one sample is collected in a reporting period.
 (6) O&G analysis must be conducted semiannually at a minimum. If visual monitoring indicates the presence of oil and grease, an additional grab sample must be submitted for analysis and discharge must cease if the concentration is found to be > 10 mg/L.
 (7) Ammonia must be monitored at the end of the pipe prior to entering Wolf Creek.

VI. Public Participation

A. Public Notice

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

- Public Notice No. MT-19-17 dated July 29, 2018
- Public comments are invited any time prior to the close of business August 28, 2019
- Comments may be directed to:
Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, MT 59620
DEQWPBPublicComments@mt.gov
or
- All comments received or postmarked prior to the close of the public comment period will be considered in the formulation of the final permit.
- DEQ will respond to all substantive comments and issue a final decision within sixty days of the close of the public comment period or as soon as possible thereafter.

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

B. Notification of Interested Parties

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

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

C. Public Hearing

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

D. Permit Appeal

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

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

Secretary, Board of Environmental Review
Department of Environmental Quality

1520 East Sixth Avenue
PO Box 200901
Helena, Montana 59620-0901

E. Additional Information

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

XI. Information Sources

Administrative Rules of Montana Title 17 Chapter 30 – Water Quality

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

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

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

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

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

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

Montana DEQ. 2017. *Compliance Evaluation Inspection Report, Town of Denton WWTP.*

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

Environmental Protection Agency Region 8. 2017. Unapproved Pretreatment Program Inspection Permit No. MT0022462.

Montana DEQ. Montana Pollutant Discharge Elimination System (MPDES) Permit Number MT0022462

- Administrative Record
- Renewal Application Forms DEQ-1 and EPA Form 2A, July 2015

National Water Quality Monitoring Council: Water Quality Data for Wolf Creek

Montana State Drinking Water Information System, Water System No. MT0000199, Accessed December 2018

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