

Wyoming Department of Environmental Quality
Water Quality Division
WYPDES (Wyoming Pollutant Discharge Elimination System) Program

STATEMENT OF BASIS

RENEWAL

APPLICANT NAME: Sheridan, City of

MAILING ADDRESS: PO Box 848 393 Fort Road
Sheridan, WY 82801

FACILITY LOCATION: Sheridan Wastewater Treatment, which is located in SWSE Section 15,
Township 56N, Range 84W, Sheridan County. The wastewater will
discharge to Goose Creek (2AB), Tongue River Basin.

Latitude: 44.82240 Longitude: -106.961292

PERMIT NUMBER: WY0020010

This permit has been renewed in accordance with current WYPDES permitting requirements. All permit effluent limits and monitoring requirements have been updated in accordance with current WDEQ regulations and policy. Specific changes to the permit include the following:

1. *Changes since February 16, 2018 public notice: Pursuant to Section 35-11-110(a) of the Wyoming Environmental Quality Act, this permit requires routine monitoring for Total Nitrogen, Total Ammonia-Nitrogen, Nitrate +Nitrite Nitrogen, Total Phosphorus and Orthophosphate-Phosphorus. As part of an effort to address negative impacts of nutrient pollution (i.e., excessive amounts of nitrogen and phosphorus) to Wyoming's surface waters, the Wyoming Department of Environmental Quality/Water Quality Division (WDEQ/WQD) and the Wyoming Nutrient Work Group developed the Wyoming Nutrient Strategy (strategy). As a part of this effort, monitoring for the previously mentioned constituents is required, unless otherwise specified in the permit, on a monthly basis. Unless otherwise specified in the permit, there are no effluent limits associated with this monitoring. See "OTHER REPORTING AND MONITORING REQUIREMENTS" below.*
2. *Additional annual monitoring requirements have been added to this permit to comply with 40 CFR Parts 122.21 and Table 2 Appendix J of 40 CFR Part 122 application requirements. See "OTHER REPORTING AND MONITORING REQUIREMENTS" below.*
3. *Monitoring and reporting for duration of discharges is added to this permit.*
4. *Oil and grease visual monitoring is added to this permit. In the event that an oil sheen or floating oil is observed in the discharge, a grab sample shall be immediately taken, analyzed and reported. The sample shall not exceed 10 mg/L.*
5. *Revised language regarding access to the facility is in Part II.B.1 of the permit.*
6. *A list of constituents from Table 2 of the Sewage Treatment Facilities application are included in this permit on pages 7-10 (Part I.D). From this list, applicants must provide data for a minimum of three sampling events taken within four and one-half years prior to the date of the permit application. In this case, the sample results are due November 30, 2022 with the renewal application for the year 2023. Samples are to be collected from outfall 001.*
7. *The Sheridan KOA previously had a sanitary sewage WYPDES permit, WY0026441. Because of the proximity of two discharges, i.e., the Sheridan KOA and the City of Sheridan WWTF, the*

previous permits included limits that were based upon the flow from both facilities. However, the KOA connected to the City of Sheridan WWTF WY0020010 in June of 2017 and discontinued direct discharging to Goose Creek, so permit limits are no longer based upon flow from both facilities. The added wastestream is a fraction of the total wastestream for WY0020010. Hence, the flow limit of 4.4 MGD for WY0020010 remains the same as the previous permit.

Facility Description

The wastewater treatment plant servicing the city of Sheridan is a secondary treatment system that includes activated sludge treatment. It has in plant pumping; coarse screening and grit removal, followed by extended air activated sludge oxidation ditch. The ditch is comprised of three cells, the first of which removes ammonia, and the remaining cells are used for aerobic treatment of the waste stream. After the activated sludge process, the wastewater stream flows into two clarifiers. Water exiting the clarifiers is disinfected with sodium hypochlorite and is later dechlorinated before direct discharge to Goose Creek (class 2AB).

Sludge (solids) from the activated sludge system are treated aerobically in aerobic digesters and then the sludge is mechanically dewatered. Solids from this system are composted at the county sanitary landfill. Side waste streams from the various sludge processes, are recirculated to the influent headworks for additional treatment. This facility also accepts local septage waste from septic system pumpers. The facility is equipped with a full laboratory facility and conducts most of its own self monitoring analysis. The facility is equipped with a back up generator in the event of normal power loss.

The facility can be directly bypassed to a stand-by old primary clarifier for emergency purposes. The primary clarifier supplies gravity settling only of the domestic waste. From the old clarifier the waste can either flow to chlorination, followed by dechlorination and discharged to Goose Creek via outfall 001. The waste at the primary clarifier can also be directly discharged (bypassing chlorination and dechlorination) directly out of outfall 002. This bypass system is used only in the event of emergencies.

Latitude and longitude location shown above is from the discharge sampling location, just prior to discharge to Goose Creek.

The produced water is immediately discharged to a class 2AB perennial water of the state. The permit establishes effluent limits for the end of pipe, which are protective of all the designated uses defined in *Chapter 1 of Wyoming Water Quality Rules and Regulations*. This may include drinking water, game and non-game fish, fish consumption, aquatic life other than fish, recreation, agriculture, wildlife, industry and scenic value.

Effluent Limits:

In developing effluent limits, all federal and state regulations and standards have been considered and the most stringent requirements incorporated into the permit. Permit limits are technology-based and water-quality-based, as described below.

TECHNOLOGY BASED LIMITS:

The permit requires immediate compliance with National Secondary Treatment Standards, Wyoming Water Quality Standards, and the effluent limits that are established by this permit.

1. The five-day biochemical oxygen demand (BOD) concentration shall not exceed 30 mg/L (monthly average) or 45 mg/L (weekly average) or 90 mg/L (daily maximum). The facility is also required to meet a percent reduction of BOD of 85%. These limits are based upon National Secondary Treatment Standards and Wyoming Water Quality Rules and Regulations.
2. The Total Suspended Solids (TSS) concentration shall not exceed 30 mg/L (monthly average) or 45 mg/L (weekly average) or 90 mg/L (daily maximum). The facility is also required to meet a percent

reduction of TSS of 85%. These limits are based upon National Secondary Treatment Standards and Wyoming Water Quality Rules and Regulation.

3. The arithmetic mean of the BOD and TSS concentrations for effluent samples collected in a period of 30-day average shall demonstrate a minimum of eighty-five percent (85%) removal each of BOD and TSS, based upon National Secondary Treatment Standards. This is measured by dividing the respective differences between the mean influent (prior to secondary treatment) and effluent concentrations for the calendar month (30-day average) by the respective mean influent concentration for the calendar month (30-day average), and multiplying the quotient by 100. See the below equation for clarification:

Percent Removal:

$$\left[\frac{\text{Influent} - \text{Effluent}}{\text{Influent}} \right] \times 100$$

WATER QUALITY BASED LIMITS:

Water-quality-based limits are set to ensure that the quality of the receiving water is protected. Expected contaminants in municipal wastewater include **pH, E. coli, ammonia, and total residual chlorine.**

pH: The permit requires that the pH must remain within 6.5 and 9.0 standard units end of pipe. The pH limit is based on water quality standards established in the *Wyoming Water Quality Rules and Regulations (WQRR), Chapter 1.*

E. coli, Ammonia, and Total Residual Chlorine: For this facility, which discharges to a perennial water, wasteload allocation calculations are performed to determine the effluent limits for **E. coli, ammonia, and total residual chlorine**, which are in part determined by dilution provided by the receiving water. This involves a mass balance approach to determine the maximum allowable concentration in the effluent at the end-of-pipe, so that when mixed with the receiving stream, the in-stream standard of the constituent is not violated and nor is the mixing zone. The wasteload allocation, with the mass balance approach, utilizes 1) the upstream flow of the receiving stream, 2) the maximum monthly average design discharge volume, and 3) the instream standard concentration, to calculate the 4) maximum allowable concentration of the constituent in the effluent. Also refer to **Table A** in the Statement-of-Basis, for wasteload allocation information.

The upstream flow of the receiving stream conditions of the receiving water must be considered. The low flow conditions can be determined by applying the 7Q10 (the minimum seven consecutive day flow that has the probability of occurring once in ten years) of the receiving water body. Using the 7Q10 values to establish the effluent limits will provide a margin of safety because “worse case” flow conditions are assumed when dilution is minimal. Normally with WYPDES permits, a U.S.G.S. monitoring station that is above the wastewater treatment plant can provide this information. However, in this situation there is no such gaging station above this wastewater facility discharge; however, there is one a short distance below. The gaging station below is utilized with the following adjustment. The flow of the wastewater treatment plant prior to 1983 was 3.0 MGD or 4.64 cfs, so this value is subtracted from the calculated 7Q10 values from the downstream gaging station. Shown are the low flow values that will be used to establish the effluent limits listed above.

U.S.G.S. Station Number	Station Name	Period of Flow Records	April-September 7Q10 Value, cfs	October-March season 7Q10 Value, cfs
06305500	Goose Creek below Sheridan, WY	1941-1984	11.36	34.91
Subtract Sheridan Average flow from the stream 7Q10	Sheridan Wastewater Plant Average Effluent	N/A	4.64	4.64
Actual low flow used in Waste Load Allocation	N/A	N/A	6.72	30.27

The 7Q10 low flow values were determined from the U.S.G.S. calculations from the 06305500 gaging station.

Site- specific **mixing zone** requirements are evaluated for the permit simultaneously with determining water quality based effluent limits. This permit sets water quality based effluent limits so that **mixing zone** requirements, per *Chapter 1, Section 9, Wyoming WQRR; and Implementation Policies*, are met for E. coli, total residual chlorine, and total ammonia. Mixing zone requirements ensure that a minimal area of the water body is impacted by the discharge during mixing of the discharge and receiving water. Several options were evaluated specific to this permit, and it was determined, as a result of this facility previously conducting a mixing zone analysis, that mixing is rapid and complete at the outfall. Therefore, no adjustment is necessary to the low flow values in the wasteload allocation. The mixing-zone-based effluent limits applicable for this permit are calculated from a mass balance equation utilizing 100% dilution because the outfall meets complete mixed standards.

For the previously mentioned “maximum monthly average design discharge volume” in the wasteload allocation, the maximum discharge volume for this facility is based on the 4.4 million gallons per day (MGD) design capacity of the plant. The permit includes a flow limit of 4.4 MGD because wasteload allocation calculations, mentioned above, are in part based on 4.4 MGD of flow.

Wasteload allocation calculations for individual constituents are discussed below for E. coli, total residual chlorine, and ammonia.

E. coli: Goose Creek (class 2AB) is impaired for E. coli and may not be meeting all use criteria; therefore the facility must meet in stream standards for E. coli at the end-of-pipe. Because of the impairment on Goose Creek, the E.coli limits are set to the most stringent instream standards of 126 colonies/100 mL (monthly geometric mean) and 235 colonies/100 mL daily maximum (High Use Swimming Areas), for the summer recreation season; and 630 colonies/100 mL for both the monthly geometric mean and the daily maximum during the winter recreation season. The E. coli standards are all based on Chapter 1 WQRR. See table, next page. The E. coli limits are not calculated with a wasteload allocation for this permit.

E. coli Bacteria Standards, In Waters Designated for Primary Contact Recreation			
April through September			October through March
Monthly Average Standard	Daily Maximum Standards	Criteria	Monthly Average and Daily Maximum
126 colonies/100 mL	235 colonies/100 ml	High Use Swimming Areas	630 colonies/100 mL
	298 colonies/100 mL	Moderate Fully Body Contact	
	410 colonies/100 mL	Lightly Used Full Body Contact	
	576 colonies/100 mL	Infrequently Used Full Body Contact	

Total Residual Chlorine: The chronic instream standard concentration for **total residual chlorine** (TRC) is 0.011 mg/L, and the acute instream standard concentration is 0.019 mg/L, based on Chapter 1 WQRR. The more stringent effluent limit is based on the chronic standard. For TRC at this facility, the upstream concentration in Goose Creek is estimated at zero, a default value. Wasteload allocation calculations were performed to establish TRC effluent limits, as follows. Utilizing the instream standard, background concentrations of TRC, discharge volume from the facility, and 100% of low flow of the receiving stream, wasteload allocation calculations determine TRC limits to be 0.02 mg/L daily max for the May through September season, and 0.06 mg/L daily maximum for the October through April season. Refer to Table A on page 8 of the Statement-of-Basis for wasteload allocation information on TRC limits.

Ammonia: The instream standards per Chapter 1 WQRR for **ammonia** are based on the estimated pH and temperature of the effluent and the receiving water combined. This data was collected from a downstream monitoring location in the receiving water during the previous permit term. The pH and temperature used for the effluent limit calculation are 7.5 standard units pH and 10° C temperature, October through April; and 7.5 standard units pH and 23° C temperature, May through September. The instream standard concentrations for ammonia for October through April are **13.3 mg/L**, acute aquatic life standard, and **4.36 mg/L**, chronic aquatic life standard. For May through September, the instream standard concentrations for ammonia are **13.3 mg/L**, acute aquatic life standard, and **2.53 mg/L**, chronic aquatic life standard. For ammonia at this facility, the background instream concentration is estimated at 0.1 mg/L, a default concentration. Wasteload allocation calculations were performed to establish ammonia effluent limits, as follows. Utilizing the instream standard, background concentrations of ammonia, discharge volume from the facility, and 100% of the low flow of the receiving stream, wasteload allocation calculations determine ammonia limits to be **4.92 mg/L** monthly average, May through September; and **26.4 mg/L** monthly average for October through April. Refer to Table A on page 8 of the Statement-of-Basis, for wasteload allocation information on ammonia limits.

DOWNSTREAM MONITORING POINT (DMP1): Ambient instream monitoring for pH and Temperature (°C), two stream widths downstream from the confluence of Goose Creek (class 2AB) and the facility outfall shall be conducted monthly for the life of this permit. This is not to be considered a compliance point, but is to gather downstream water quality data to set future permit limits. See Part I, Section F.9 for the location of DMP1.

WHOLE EFFLUENT TOXICITY (WET) TESTING: Whole Effluent Toxicity (WET) Testing: Due to the fact that the (calculated) dilution factor in this case is less than 10:1, the permittee must pass chronic toxicity criteria for two species. In the chronic test the test organisms are exposed for a longer period of time and the effects on growth (fathead minnows) and reproduction (*Ceriodaphnia*) are

measured. However, with the chronic test pass or failure is determined under low stream flow dilution condition. In this case the low stream flow dilution is 50% effluent¹, so the chronic test criteria must be met in a test solution containing 50% effluent and 50% control water during the summer season, and 18% effluent and 82% control water during the winter season. Control water may be either water from the receiving stream or laboratory control water. Chronic testing and reporting is required quarterly. See Part I, Section D for more information.

- ¹ The calculation for the low stream flow and effluent dilution for WET test is as follows to determine dilution (percent effluent) used in the WET test:

$$4.4 \text{ MGD} / (4.33 \text{ MGD stream low flow available for dilution} + 4.4 \text{ MGD design flow})$$

(Note that 4.33 MGD equals 6.72 cfs)

$$\text{The above division equals } 4.42 \text{ MGD} / 8.75 \text{ MGD design flow} + \text{low stream flow} = 0.504$$

Converting 0.504 to a percentage = 50.4% effluent (April through September) (50%).

For the winter season (October through March)

$$4.4 \text{ MGD} / (19.52 \text{ MGD stream low flow} + 4.4 \text{ MGD design flow})$$

(Note that 19.52 MGD equals 30.27 cfs)

$$\text{The above division equals } 4.4 \text{ MGD} / 23.94 \text{ MGD} = 18.4 \% \text{ effluent (18\%).}$$

April- September Low Flow Value, cfs	October- March season Low Flow Value, cfs
6.72	30.27

During the previous permit monitoring schedule, the permittee requested acute WET testing for one species (*Ceriodaphnia* or Fathead Minnows) on an alternating basis. As per Part I, Section B.3. of the previous permit, the DEQ granted the permittee's request because of five consecutive passing acute WET test results. With this permit issuance, the permittee will be required to test on both species per quarter. With five consecutive passing *chronic* WET tests, the permittee may again request testing for one species on an alternating basis. See Part I, Section D for more information.

Industrial Pretreatment Provisions: This permit contains the industrial pretreatment requirements of the U.S. Environmental Protection Agency (EPA), which are also administered by EPA. Those requirements are intended to ensure that industrial discharges to the plant do not cause an upset of the system or violation of the effluent limits that are established in the permit. See Part III, Section B of the permit for more information.

ANTIDegradation, Impairment Review: The discharge of wastewater and the effluent limits that are established in this permit have been reviewed to ensure that the levels of water quality necessary to protect the designated uses of the receiving waters are maintained and protected. An antidegradation review has been conducted and verifies that the permit conditions, including the effluent limitations established, provide a level of protection to the receiving water consistent with the antidegradation provisions of Wyoming surface water quality standards. DEQ reviewed the 303(d) list to determine the status of the receiving water as a waterbody that cannot support designated uses. The evaluation has revealed that Goose Creek (class 2AB) is included on the 303(d) list for E. coli which

threatens support of some uses. Because of this the effluent limits for E. coli for this facility are set to the most stringent instream standards.

OTHER REPORTING AND MONITORING REQUIREMENTS

1. Annual Monitoring:

Based upon 40 CFR Part 122.21(j)(4) and Table 2 Appendix J of 40 CFR Part 122, the following constituents must be monitored and reported at least one time annually from the effective date of the permit. Unless otherwise specified in the permit, there are no effluent limits associated with this monitoring.

- Dissolved Oxygen, mg/L
- Total Kjeldahl Nitrogen, mg/L
- Oil and Grease, mg/L
- Total Dissolved Solids, mg/L

2. Nutrient Monitoring:

As part of an effort to address negative impacts of nutrient pollution (i.e., excessive amounts of nitrogen and phosphorus) to Wyoming's surface waters, the Wyoming Department of Environmental Quality/Water Quality Division (WDEQ/WQD) and the Wyoming Nutrient Work Group developed the Wyoming Nutrient Strategy (strategy). As a part of this effort, monitoring for the following constituents is required, unless otherwise specified in the permit, on a monthly basis. Unless otherwise specified in the permit (e.g. ammonia), there are no effluent limits associated with this monitoring.

- Total Nitrogen, mg/L (0.1 mg/L reporting limit)
- Ammonia, Nitrogen (as N), mg/L (0.05 mg/L reporting limit)
- Nitrate+Nitrite Nitrogen, mg/L (0.05 mg/L reporting limit)
- Total Phosphorus, mg/L (0.01 mg/L reporting limit)
- Orthophosphate Phosphorus, mg/L (0.01 mg/L reporting limit)

This monitoring is required of all major municipal dischargers, and all dischargers in the Boysen Reservoir watershed. Boysen Reservoir was selected as the top priority waterbody due to recurring blue-green algae blooms, its use as a public drinking water supply, and its popularity for immersion-based and other recreational activities.

MAJOR DISCHARGE: This facility is classified as a "major" discharger per the U.S. Environmental Protection Agency. The permit will be submitted to the U.S. Environmental Protection Agency, Region 8 for review.

Self-monitoring of effluent quality and quantity is required on a regular basis with reporting of results monthly. The permit is scheduled to expire on May 31, 2023.

Roland Peterson
Water Quality Division
Department of Environmental Quality
Drafted January 9, 2018

Wasteload Allocation Table A

Facility: City of Sheridan
Permit Number: WY0020010

Wasteload Allocation
Formula:

$$C_d = (Q_r C_r - Q_s C_s) / Q_d$$

		Q_s		Q_d	Q_r	C_r	C_s	C_d
Season	Parameter	Low Flow, cfs (7Q10)	Low Flow, MGD (7Q10)	Discharge Rate, MGD	Combined Flow, MGD	Water Quality Standard	Back-ground Con. (LA)	Limit (WLA)
May-Sept	TRC, chronic	6.72	4.3344	4.4	8.7344	0.011	0	0.02
Oct-April	TRC, chronic	30.27	19.52415	4.4	23.92415	0.011	0	0.06
May-Sept	TRC, acute	6.72	4.3344	4.4	8.7344	0.019	0	0.04
Oct-April	TRC, acute	30.27	19.52415	4.4	23.92415	0.019	0	0.10
May-Sept	Ammonia, chronic	6.72	4.3344	4.4	8.7344	2.53	0.1	4.92
Oct-April	Ammonia, chronic	30.27	19.52415	4.4	23.92415	4.36	0.1	23.26
May-Sept	Ammonia, acute	6.72	4.3344	4.4	8.7344	13.33	0.1	26.36
Oct-April	Ammonia, acute	30.27	19.52415	4.4	23.92415	13.33	0.1	72.04

*All units are mg/L, unless otherwise specified.

AUTHORIZATION TO DISCHARGE UNDER THE
WYOMING POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, (hereinafter referred to as "the Act"), and the Wyoming Environmental Quality Act,

Sheridan, City of

is authorized to discharge from the Sheridan Wastewater Treatment treatment facilities located in

SWSE Section 15, Township 56N, Range 84W, Sheridan County

Latitude: 44.82240 Longitude: -106.96129

to receiving waters named

Goose Creek (2AB), Tongue River Basin

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II and III hereof.

This permit shall become effective on June 1, 2018.

This permit and the authorization to discharge shall expire May 31, 2023 at midnight.

Kevin Frederick, Administrator
Water Quality Division

Todd Parfitt, Director
Department of Environmental Quality

Date of Issuance_____

PART I

A. EFFLUENT LIMITATIONS - SEE ANY ADDITIONAL REQUIREMENTS UNDER PART III

Effective **June 1, 2018** and lasting through **May 31, 2023**, the quality of effluent discharged by the permittee shall, at a minimum, meet the limitations set forth below. The permittee is authorized to discharge from outfall serial number(s) 001-002.

- Such discharges shall be limited as specified below:

Effluent Concentration

<u>Parameter</u>	<u>Monthly Average (b)</u>	<u>Weekly Average (b)</u>	<u>Daily Maximum (a) (b)</u>
Biochemical Oxygen Demand (BOD), mg/L	30	45	90
E. coli, colonies/100 mL, May-September	126	N/A	235
E. coli, colonies/100 mL, October-April	630	N/A	630
Flow, MGD	4.4	N/A	N/A
Total Suspended Solids (TSS), mg/L	30	45	90
Total Residual Chlorine (mg/L), May-September	N/A	N/A	0.02
Total Residual Chlorine (mg/L), October-April	N/A	N/A	0.06
Total Ammonia as N (mg/L), May-September	4.92	N/A	26.4
Total Ammonia as N (mg/L), October-April	23.3	N/A	30.0
pH, s.u. (c)	N/A	N/A	6.5-9.0
BOD, % Removal (d)	85	N/A	N/A
TSS, % Removal (d)	85	N/A	N/A
Oil and Grease, mg/L(e)	N/A	N/A	10

<u>Parameter</u>	<u>Monthly Average (b)</u>	<u>Weekly Average (b)</u>	<u>Daily Maximum (a) (b)</u>
Whole Effluent Toxicity, Chronic, April through September, IC ₂₅ at 50% effluent	N/A	N/A	Pass
Whole Effluent Toxicity, Chronic, October through March, IC ₂₅ at 18% effluent	N/A	N/A	Pass

- (a) Any single analysis and/or measurement beyond this limitation shall be considered a violation of the conditions of this permit.
- (b) Monthly Average, Weekly Average and Daily Maximum are defined in Part I.C.3.
- (c) The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units in any single grab sample.
- (d) Compliance with percent removal requirements is based on 30-day average sampling. More frequent sampling is optional. The arithmetic mean of the BOD and TSS concentrations for effluent samples collected in a period of 30-day average shall demonstrate a minimum of eighty-five percent (85%) removal, as measured by dividing the respective differences between the mean influent and effluent concentrations for the calendar month by the respective mean influent concentration for the 30-day average, and multiplying the quotient by 100.

$$\left[\frac{\text{Influent} - \text{Effluent}}{\text{Influent}} \right] \times 100$$

- (e) In the event that an oil sheen or floating oil is observed in the discharge, a grab sample shall be immediately taken, analyzed and reported. The sample shall not exceed 10 mg/L.

There shall be no discharge of floating solids or visible foam in other than trace amounts, nor shall the discharge cause formation of a visible sheen or visible hydrocarbon deposits on the bottom or shoreline of the receiving water.

All waters shall be discharged in a manner to prevent erosion, scouring, or damage to stream banks, stream beds, ditches, or other waters of the state at the point of discharge. In addition, there shall be no deposition of substances in quantities which could result in significant aesthetic degradation, or degradation of habitat for aquatic life, plant life or wildlife; or which could adversely affect public water supplies or those intended for agricultural or industrial use.

B. SELF-MONITORING REQUIREMENTS

1. Routine monitoring End of Pipe-outfall 001-002

<u>Parameter</u>	<u>Frequency (a)(f)</u>	<u>Sample Type (b)</u>
E. coli, colonies/100 mL	Twice Weekly	Grab
pH, units	Twice Weekly	Grab
Flow, MGD	Continuous	Daily Total (Report monthly average and daily maximum for the reporting month).
Total Residual Chlorine, mg/L (c)	Daily	Grab
Total Ammonia as N, mg/L	Twice Weekly	Composite
BOD, mg/L, influent	Twice Weekly	Composite
BOD, mg/L, effluent	Twice Weekly	Composite
BOD, % Removal	Monthly	Calculate
TSS, mg/L, influent	Twice Weekly	Composite
TSS, mg/L, effluent	Twice Weekly	Composite
TSS, mg/L, % removal	Monthly	Calculate
Temperature, °C	Weekly	Grab
Oil and grease, mg/L	Monthly	Visual (d)
Duration of Discharge, Days (e)	Monthly	Report Number Of Days Discharged
Total Nitrogen, mg/L	Monthly	Composite
Nitrate+Nitrite Nitrogen, mg/L	Monthly	Composite
Total Phosphorus, mg/L	Monthly	Composite
Orthophosphate-phosphorus, mg/L	Monthly	Composite
WET, (Chronic)	Quarterly	Composite
Dissolved Oxygen, mg/L	Annually	Grab
Total Kjeldahl Nitrogen, mg/L	Annually	Composite
Oil and Grease, mg/L	Annually	Grab

<u>Parameter</u>	<u>Frequency (a)(f)</u>	<u>Sample Type (b)</u>
Annual Metals Report (Part III.B.1.f of permit)	Annually	Submit Copy of Report to WDEQ at Address Listed in Part I.C. of the Permit

Samples taken in compliance with the monitoring requirements specified above shall be taken at the outfall from the final treatment unit and prior to admixture with diluent water or the receiving stream.

- (a) If the discharge occurs on an intermittent basis, samples shall be collected during the period when that intermittent discharge occurs.
- (b) See "definitions" under the Monitoring and Reporting portion of this permit.
- (c) Monitor only if chlorine is used in the wastewater treatment process.
- (d) In the event that an oil sheen or floating oil is observed in the discharge, a grab sample shall be immediately taken, analyzed and reported. The sample shall not exceed 10 mg/L.
- (e) If the permittee only discharges for three (3) days or less during the month, the no discharge code of "Less than 3 days of discharge; Avg not applicable" may be used for the monthly and weekly averages in place of a numerical value on the Discharge Monitoring Reports (DMRs).

C. DOWNSTREAM MONITORING POINT (DMP1)

Effective **June 1, 2018** and lasting through **May 31, 2023**, the permittee shall monitor the Downstream Monitoring Point (DMP1) as shown below:

DMP1: Downstream sampling shall be taken two stream widths downstream from the confluence of Goose Creek and the effluent from this facility. There are no limits associated with this monitoring; the data will be used to set future permit limits. See Section F.9 for location of DMP.

<u>Parameter</u>	<u>Frequency</u>	<u>Sample Type</u>
pH	Monthly	Grab
Temperature, °C	Monthly	Grab

D. WHOLE EFFLUENT TOXICITY TESTING

1. Effluent Limitations (Toxic Pollutants)

Effective immediately upon issuance of this permit renewal, there shall be no chronic toxicity occurring in the effluent from this facility.

2. Whole Effluent Testing (Chronic)

Effective immediately upon issuance of this permit renewal, the permittee shall, at least once each calendar quarter, conduct chronic static replacement toxicity tests on a composite sample of the discharge. ***Because of logistics involved with getting samples to the contract laboratory to be analyzed before expiration of hold times, WET sampling is not required on Friday, Saturday, or Sunday.***

The replacement static toxicity tests shall be conducted in accordance with the procedures set out in 40 CFR 136 and the most current edition of *Methods for Measuring the Chronic Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, EPA-821--R-02-013. In the case of conflicts in method, 40 CFR 136 will prevail. The permittee shall conduct a chronic static renewal toxicity test using *Ceriodaphnia dubia* and a chronic seven-day static renewal toxicity test using *Pimephales promelas*. All tests will be conducted utilizing a multi-dilution series consisting of at least five (5) concentrations and a control as defined below:

April through September:

- 100% effluent
- 60% effluent
- 50% effluent
- 40% effluent
- 25% effluent
- control (or 0% effluent)

October through March:

- 100% effluent
- 75% effluent
- 30% effluent
- 18% effluent
- 12.5% effluent
- control (or 0% effluent)

In the event of inconclusive test results, the WDEQ reserves the right to require the permittee to perform additional tests at alternate dilutions and/or replicates. The WDEQ also reserves the right to require the submission of all information regarding all initiated tests, regardless of whether the tests were carried to completion or not.

Chronic toxicity occurs when, during a chronic toxicity test, the 25% inhibition concentration (IC₂₅) calculated on the basis of test organism survival and growth or survival and reproduction, is less than or equal to 50% effluent dilution for April through September and 18% effluent dilution for October through March.

If chronic toxicity occurs at any outfall during a sampling period, then WDEQ will assume that all outfalls, which have not yet been sampled, exhibit similar chronic toxicity characteristics as well.

If a test acceptability criterion is not met for control survival, growth, or reproduction, the test shall be considered invalid. In such cases, the test shall be repeated until all test acceptability criteria are met and valid results are obtained.

If chronic toxicity occurs, an additional test shall be conducted within two (2) weeks of the date of when the permittee learned of the test failure. If only one species fails, retesting may be limited to this species. Should chronic toxicity occur in the second test, testing shall occur once a month until further notified by the permit issuing authority. The permittee shall promptly take all reasonable measures necessary to immediately reduce toxicity if the suspected toxicity is known.

Quarterly test results shall be reported on the most recent version of EPA Region 8 Format for Whole Effluent Reporting along with the Discharge Monitoring Report (DMR) submitted for the end of the reporting calendar quarter (e.g., whole effluent results for the calendar quarter ending March 31, shall be reported with the DMR due April 28, with the remaining reports submitted with DMRs due each July 28, October 28 and January 28). Monthly test results shall be reported along with the DMR submitted for that month and shall include all chemical and physical data as specified.

If the results for five consecutive quarters of testing indicate no chronic toxicity, the permittee may request the permit issuing authority to reduce testing frequency, and/or reduce testing to one species on an alternating basis, and/or modify testing to the acute test program. The permit issuing authority may approve or deny the request based on the results and other available information without an additional public notice. If the request is approved, the test procedures are to be the same as specified above for the test species.

3. Toxicity Reduction Evaluation (TRE) and Toxicity Identification Evaluation (TIE)

Should toxicity be detected in the permittee's discharge, a TIE-TRE shall be undertaken by the permittee to establish the cause of the toxicity, locate the source(s) of the toxicity, and develop control of, or treatment for the toxicity. Failure to initiate, or conduct an adequate TIE-TRE, or delays in the conduct of such tests, shall not be considered a justification for noncompliance with the whole effluent toxicity limits contained in this permit. A TRE plan needs to be submitted to the permitting authority within 45 days after confirmation of the continuance of effluent toxicity.

If acceptable to the permit issuing authority, and if in conformance with current regulations, this permit may be reopened and modified to incorporate TRE conclusions relating to additional numerical limitations, a modified compliance schedule, and or modified whole effluent protocol.

E. ADDITIONAL MONITORING REQUIREMENTS

Applicants with facilities with a design capacity of 1.0 MGD AND do not have an approved pretreatment program must also provide the results of THREE water analyses for samples collected from this facility for the parameters listed below, in Table 2 of the Sewage Treatment Facilities application, also shown in the table below. Applicants must provide data for a minimum of three sampling events taken within four and one-half years prior to the date of the permit application. Samples are to be collected from outfall 001. The analyses must be conducted in accordance with approved EPA test procedures (40 CFR Part 136). Include a signed copy of your lab report that includes the following:

- a. Analytical method
- b. Results of each of the chemical parameters at the units given below
- c. Date of sample collection
- d. Date of analysis for each parameter

- e. Detection limit for each parameter as achieved by the laboratory.

The THREE water analyses for samples collected from this facility are due November 30, 2022 with the renewal application for the year 2023.

Monitoring for Majors		
Parameter	Units	Reporting limit or Practical Quantitation Limits
Hardness	mg/L	1
Total Cyanide	mg/L	0.2
Total phenols	mg/L	0.05
Antimony	mg/L	0.05
Arsenic	mg/L	0.001
Beryllium	mg/L	0.001
Cadmium	mg/L	0.001
Chromium	mg/L	0.01
Copper	mg/L	0.01
Lead	mg/L	0.005
Mercury	mg/L	0.001
Nickel	mg/L	0.01
Selenium	mg/L	0.005
Silver	mg/L	0.005
Thallium	mg/L	0.1
Zinc	mg/L	0.01
Acrolein	ug/L	50
Acrylonitrile	ug/L	50
Benzene	ug/L	0.5
Bromoform	ug/L	1
Bromomethane (Methyl bromide)	ug/L	2
Carbon tetrachloride	ug/L	1
Chlorobenzene	ug/L	1
Chlordibromomethane (Dibromochloromethane)	ug/L	1
Chloroethane	ug/L	1
2-Chloroethylvinyl ether	ug/L	1
Chloroform	ug/L	1
Chloromethane (Methyl chloride)	ug/L	1
Dichlorobromomethane (Bromodichloromethane)	ug/L	1
1,1-Dichloroethane	ug/L	1
1,2- Dichloroethane	ug/L	1
Trans-1,2-Dichloroethylene (Trans-1,2-Dichloroethene)	ug/L	1
1,1-Dichloroethylene (1,1-Dichlorethene)	ug/L	1
1,1-Dichloropropane	ug/L	1
1,3-Dichlorpropylene (cis-1,3-Dichloropropene & trans-1,3-Dichloropropene)	ug/L	1

Monitoring for Majors		
Parameter	Units	Reporting limit or Practical Quantitation Limits
Ethylbenzene	ug/L	0.5
Methylene chloride	ug/L	1
1,1,2,2-Tetrachlorethane	ug/L	1
Tetrachlorethylene (Tetrachloroethene)	ug/L	1
Toluene	ug/L	0.5
1,1,1-Trichloroethane	ug/L	1
1,1,2-Trichloroethane	ug/L	1
Trichloroethylene (Trichloroethene)	ug/L	1
Vinyl Chloride	ug/L	1
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	ug/L	50
2-Chlorophenol	ug/L	50
2,4-Dichlorophenol	ug/L	50
2,4-Dimethylphenol	ug/L	50
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/L	50
2,4-Dinitrophenol	ug/L	50
2-Nitrophenol	ug/L	50
4-Nitrophenol	ug/L	50
Pentachlorophenol	ug/L	50
Phenol	ug/L	50
2,4,6-Trichlorophenol	ug/L	50
Acenaphthene	ug/L	20
Acenaphthylene	ug/L	20
Anthracene	ug/L	20
Benzidine	ug/L	50
Benzo(a)anthracene	ug/L	20
Benzo(a)pyrene	ug/L	20
Benzo(b)fluoranthene (3,4 benzofluoranthene)	ug/L	20
Benzo(g,h,i)perylene	ug/L	20
Benzo(k)fluoranthene	ug/L	20
Bis(2-chloroethoxy)methane	ug/L	20
Bis(2-chloroethyl)ether	ug/L	20
Bis(2-chloroisopropyl)ether	ug/L	20
Bis(2-ethylhexyl)phthalate	ug/L	20
4-bromophenylphenylether	ug/L	20
Butyl benzyl phthalate	ug/L	20
2-chloronaphthalene	ug/L	20
4-chlorophenyl-phenylether	ug/L	20
Chrysene	ug/L	20
Di-n-butyl phthalate	ug/L	20
Di-n-octyl phthalate	ug/L	20
Dibenzo(a,h)anthracene	ug/L	20
1,2-dichlorobenzene	ug/L	20

Monitoring for Majors		
Parameter	Units	Reporting limit or Practical Quantitation Limits
1,3-dichlorobenzene	ug/L	20
1,4-dichlorobenzene	ug/L	20
3,3-dichlorobenzidine	ug/L	50
Diethyl phthalate	ug/L	20
Dimethyl phthalate	ug/L	20
2,4-dinitrotoluene	ug/L	20
2,6-dinitrotoluene	ug/L	20
1,2-diphenylhydrazine	ug/L	20
Fluoranthene	ug/L	20
Fluorene	ug/L	20
Hexachlorobenzene	ug/L	20
Hexachlorobutadiene	ug/L	20
Hexachlorocyclopentadiene	ug/L	20
Hexachloroethane	ug/L	20
Indeno(1,2,3-cd)pyrene	ug/L	20
Isophorone	ug/L	20
Naphthalene	ug/L	20
Nitrobenzene	ug/L	20
N-nitrosodi-n-propylamine	ug/L	20
N-nitrosodimethylamine	ug/L	20
N-nitrosodiphenylamine	ug/L	20
Phenanthrene	ug/L	20
Pyrene	ug/L	20
1,2,4,-trichlorobenzene	ug/L	20

F. MONITORING AND REPORTING

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other wastestream, body of water, or substance. Monitoring points shall not be changed without notification to and approval by, the permit issuing authority. Sludge samples shall be collected immediately prior to the disposal practice at a location representative of the sludge.

2. Reporting

Effluent monitoring results obtained during the previous one month(s) shall be summarized and reported on a Discharge Monitoring Report Form. If the permit requires whole effluent toxicity (WET) (biomonitoring) testing then test results shall be reported along with the Discharge Monitoring Report (DMR) submitted for the first half of the calendar year (e.g., whole effluent results shall be reported with the DMR due July 28). The format for the report shall be consistent with the latest revision of the "Region VIII

Guidance for Acute Whole Effluent Reporting", and shall include all chemical and physical data as specified. Legible copies of these, and all other reports required herein, shall be signed and certified in accordance with the Signatory Requirements (see Part II.A.11.), and submitted to the state water pollution control agency at the following address. The reports must be received by the agency no later than the 28th day of the month following the completed reporting period. The first report is due on **July 28, 2018**.

Wyoming Department of Environmental Quality-Water Quality Division 200 West 17 th Street Cheyenne, WY 82002 Telephone: (307) 777-7781	Policy, Enforcement Management and Environmental Justice Program (ENF-PJ) ATTN: NPDES Enforcement U.S. EPA, Region 8 1595 Wynkoop St. Denver, CO 80202-1129 Telephone: (303) 293-1622
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If no discharge occurs during the reporting period, "no discharge" shall be reported. If discharge is intermittent during the reporting period, sampling shall be done while the facility is discharging.

3. Definitions

Concentration Values

- a. Daily Maximum (mg/L) - The highest single reading from any grab or composite sample collected during the reporting period.
- b. Monthly Average (mg/L) - The arithmetic mean (geometric mean in the case of fecal coliform or E. coli) of all composite and/or grab samples collected during a calendar month.
- c. Weekly Average (mg/L) - The arithmetic mean (geometric mean in the case of fecal coliform or E. coli) of all composite and/or grab samples collected during any week. A week begins at 12:01 a.m. Sunday morning and ends at 12:00 midnight Saturday evening.

Quantity Values

- d. Daily Maximum - The highest single daily quantity reading (see Calculations below) recorded during the reporting period.
- e. Monthly Average - The arithmetic mean (geometric mean in the case of fecal coliform or E. coli bacteria) of all the daily quantity readings (see Calculations below) recorded during a calendar month.
- f. Weekly Average - The arithmetic mean (geometric mean in the case of fecal coliform or E. coli bacteria) of all the daily quantity readings (see Calculations

below) recorded during a week. A week begins at 12:01 am Sunday morning and ends at 12:00 midnight Saturday evening.

Flow Values

- g. Daily Flow - The flow volume recorded on any single day. The daily flow volume may be determined by using an instantaneous reading (if authorized by this permit) or a continuous recorder.
- h. Monthly Average Flow - The arithmetic mean of all daily flow values recorded during a calendar month.
- i. Weekly Average Flow - The arithmetic mean of all daily flow values recorded during a week. A week begins at 12:01 am on Sunday morning and ends at 12:00 midnight Saturday evening.

Calculations

- j. Daily Quantity (kg/day) - The quantity, in kilograms per day, of pollutant discharged on a single day. The Daily quantity shall be calculated by multiplying the composite or grab sample concentration value for that day in milligrams/liter (mg/L) times the flow volume (in millions of gallons per day - MGD) for that day times 3.78. If a flow volume reading for the day the sample is collected is not available, the average flow volume reading for the entire reporting period shall be used.
- k. Daily Quantity (#/day) - The quantity, in number per day, of bacteria or other pollutants discharged on a single day. The number per day shall be calculated by multiplying the composite or grab sample result for that day, in number per 100 milliliters (#/100 mL), times the flow volume (in millions of gallons per day - MGD) times 3.78×10^7 . If a flow volume reading for the day the sample is collected is not available, the average flow volume reading for the entire reporting period shall be used.
- L. Geometric Mean - Calculated in accordance with the procedure described in the most recent edition of "Standard Methods for the Examination of Water and Wastewater".

Miscellaneous

- m. A "composite" sample, for monitoring requirements, is defined as a minimum of four (4) grab samples collected at equally spaced two (2) hour intervals and proportioned according to flow.
- n. An "instantaneous" measurement for monitoring requirements is defined as a single reading, measurement, or observation.
- o. "MGD", for monitoring requirements, is defined as million gallons per day.
- p. "Net" value, if noted under Effluent Characteristics, is calculated on the basis of the net increase of the individual parameter over the quantity of that same

parameter present in the intake water measured prior to any contamination or use in the process of this facility. Any contaminants contained in any intake water obtained from underground wells shall not be adjusted for as described above and, therefore, shall be considered as process input to the final effluent. Limitations in which "net" is not noted are calculated on the basis of gross measurements of each parameter in the discharge, irrespective of the quantity of those parameters in the intake waters.

- q. A "pollutant" is any substance or substances which, if allowed to enter surface waters of the state, causes or threatens to cause pollution as defined in the Wyoming Environmental Quality Act, Section 35-11-103.

4. Test Procedures

Test procedures for the analysis of pollutants, collection of samples, sample containers, sample preservation, and holding times, shall conform to regulations published pursuant to 40 CFR, Part 136, unless other test procedures have been specified in this permit.

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date and time of sampling;
- b. The dates and times the analyses were performed;
- c. The person(s) who performed the analyses and collected the samples;
- d. The analytical techniques or methods used; and
- e. The results of all required analyses including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine the results.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form. Such increased frequency shall also be indicated.

7. Records Retention

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

Reports and a copy of this WYPDES permit must be maintained on site during the duration of activity at the permitted location.

8. Penalties for Tampering

The Act provides that any person who falsifies, tampers with or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two (2) years per violation, or both.

9. Location of Discharge/Monitoring Points

See Table 1, Below.

TABLE 1
OUTFALLS
WY0020010
Sheridan Wastewater Treatment

Outfall	Qtr/Qtr	Section	Township	Range	Latitude	Longitude	Receiving Water
*001	SWSE	15	56N	84W	44.82240	-106.961292	Goose Creek, tributary to the Tongue River (both class 2AB), Tongue River basin.
002	SWSE	15	56N	84W	44.821868	-106.961583	Goose Creek, tributary to the Tongue River (both class 2AB), Tongue River basin.
DMP1	SWSE	15	56N	84W	44.822799	-106.928504	Goose Creek (class 2AB), approximately two stream widths downstream from the facility discharge pipe.

*Outfall location DEQ-verified on 8/3/2017.

PART II

A. MANAGEMENT REQUIREMENTS

1. Changes

The permittee shall give notice to the administrator of the Water Quality Division as soon as possible of any physical alterations or additions to the permitted facility. Notice is required when:

- a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as determined in 40 CFR 122.29 (b); or
- b. The alteration or addition could change the nature or increase the quantity of pollutants discharged.

2. Noncompliance Notification

- a. The permittee shall give advance notice of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- b. The permittee shall report any noncompliance which may endanger health or the environment as soon as possible, but no later than 24 hours from the time the permittee first became aware of the circumstances. The report shall be made to the Water Quality Division, Wyoming Department of Environmental Quality at (307) 777-7781.
- c. For any incidence of noncompliance, including noncompliance related to non-toxic pollutants or non-hazardous substances, a written submission shall be provided within five (5) days of the time that the permittee becomes aware of the noncompliance circumstance.

The written submission shall contain:

- (1) A description of the noncompliance and its cause;
 - (2) The period of noncompliance, including exact dates and times;
 - (3) The estimated time noncompliance is expected to continue if it has not been corrected; and
 - (4) Steps taken or planned to reduce, eliminate and prevent reoccurrence of the noncompliance.
- d. The following occurrences of unanticipated noncompliance shall be reported by telephone to the Water Quality Division, Watershed Management Section, WYPDES Program (307) 777-7781 as soon as possible, but no later than 24 hours from the time the permittee first became aware of the circumstances.

- (1) Any unanticipated bypass which exceeds any effluent limitation in the permit;
 - (2) Any upset which exceeds any effluent limitation in the permit; or
 - (3) Violation of a maximum daily discharge limitation for any toxic pollutants or hazardous substances, or any pollutants specifically identified as the method to control a toxic pollutant or hazardous substance listed in the permit.
- e. The administrator of the Water Quality Division may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Water Quality Division, WYPDES Program (307) 777-7781.
- f. Reports shall be submitted to the Wyoming Department of Environmental Quality at the address in Part I under Reporting and to the Planning and Targeting Program, 8ENF-PT, Office of Enforcement, Compliance, and Environmental Justice, U.S. EPA Region 8, 1595 Wynkoop Street, Denver, CO 80202-1129.
- g. The permittee shall report all instances of noncompliance that have not been specifically addressed in any part of this permit at the time the monitoring reports are due.

3. Facilities Operation

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

4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to waters of the state resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. Bypass of Treatment Facilities

- a. Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
- b. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of

paragraphs c. and d. of this section. Return of removed substances to the discharge stream shall not be considered a bypass under the provisions of this paragraph.

c. Notice:

- (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice at least 60 days before the date of the bypass.
- (2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required under Part II.A.2.

d. Prohibition of bypass.

- (1) Bypass is prohibited and the administrator of the Water Quality Division may take enforcement action against a permittee for a bypass, unless:
 - (a) The bypass was unavoidable to prevent loss of life, personal injury or severe property damage;
 - (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (c) The permittee submitted notices as required under paragraph c. of this section.

e. The administrator of the Water Quality Division may approve an anticipated bypass, after considering its adverse effects, if the administrator determines that it will meet the three conditions listed above in paragraph d. (L) of this section.

6. Upset Conditions

- a. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improper designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- b. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of paragraph c. of this section are met.

- c. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that:
- (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (2) The permitted facility was at the time being properly operated;
 - (3) The permittee submitted notice of the upset as required under Part II.A.2; and
 - (4) The permittee complied with any remedial measures required under Part II.A.4.
- d. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

7. Removed Substances

Solids, sludges, filter backwash or other pollutants removed in the course of treatment or control of wastewaters or intake waters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the state.

8. Power Failures

In order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

- a. In accordance with a schedule of compliance contained in Part I, provide an alternative power source sufficient to operate the wastewater control facilities; or
- b. If such alternative power source as described in paragraph a. above is not in existence and no date for its implementation appears in Part I, take such precautions as are necessary to maintain and operate the facility under its control in a manner that will minimize upsets and insure stable operation until power is restored.

9. Duty to Comply

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

10. Duty to Mitigate

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

11. Signatory Requirements

All applications, reports or information submitted to the administrator of the Water Quality Division shall be signed and certified.

a. All permit applications shall be signed as follows:

- (1) For a corporation: by a responsible corporate officer;
- (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively;
- (3) For a municipality, state, federal or other public agency: by either a principal executive officer or ranking elected official.

b. All reports required by the permit and other information requested by the administrator of the Water Quality Division shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- (1) The authorization is made in writing by a person described above and submitted to the administrator of the Water Quality Division; and
- (2) The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or any individual occupying a named position.

c. If an authorization under paragraph II.A.11.b. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph II.A.11.b must be submitted to the administrator of the Water Quality Division prior to or together with any reports, information or applications to be signed by an authorized representative.

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

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the

system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

B. RESPONSIBILITIES

1. A. Providing Access

The permittee shall allow Department of Environmental Quality personnel and their invitees to enter the premises where the facility is located, or where records are kept under the conditions of this permit, and collect resource data as defined by Wyoming Statute § 6-3-414, inspect and photograph the facility, collect samples for analysis, review records, and perform any other function authorized by law or regulation. The permittee shall secure and maintain such access for the duration of the permit.

If the facility is located on property not owned by the permittee, the permittee shall also secure and maintain from the landowner upon whose property the facility is located permission for Department of Environmental Quality personnel and their invitees to enter the premises where a regulated facility is located, or where records are kept under the conditions of this permit, and collect resource data as defined by Wyoming Statute § 6-3-414, inspect and photograph the facility, collect samples for analysis, review records, and perform any other function authorized by law. The permittee shall secure and maintain such access for the duration of the permit.

If the facility cannot be directly accessed using public roads, the permittee shall also secure and maintain permission for Department of Environmental Quality personnel and their invitees to enter and cross all properties necessary to access the facility. The permittee shall secure and maintain such access for the duration of the permit.

B. Access Records

The permittee shall maintain in its records documentation that demonstrates that the permittee has secured permission for Department of Environmental Quality personnel and their invitees to access the permitted facility, including (i) permission to access the land where the facility is located, (ii) permission to collect resource data as defined by Wyoming Statute § 6-3-414, and (iii) permission to enter and cross all properties necessary to access the facility if the facility cannot be directly accessed from a public road. The permittee shall also maintain in its records a current map of the access route(s) to the facility and contact information for the owners or agents of all properties that must be crossed to access the facility. The permittee shall ensure that the documentation, map, and contact information are current at all times. The permittee shall provide the documentation, map, and contact information to Department of Environmental Quality personnel upon request. Upon termination of the permit, the permittee shall maintain such records for a period of three (3) years.

2. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall notify the succeeding owner or controller of the

existence of this permit by letter, a copy of which shall be forwarded to the regional administrator of the Environmental Protection Agency and the administrator of the Water Quality Division. The administrator of the Water Quality Division shall then provide written notification to the new owner or controller of the date in which they assume legal responsibility of the permit. The permit may be modified or revoked and reissued to change the name of the permittee and incorporate such other requirements as described in the federal act.

3. Availability of Reports

Except for data determined to be confidential under Section 308 of the federal act, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Wyoming Department of Environmental Quality and the regional administrator of the Environmental Protection Agency. As required by the federal act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the federal act.

4. Toxic Pollutants

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

5. Changes in Discharge of Toxic Substances

Notification shall be provided to the administrator of the Water Quality Division as soon as the permittee knows of, or has reason to believe:

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21 (g) (7); or
 - (4) The level established by the director of the Environmental Protection Agency in accordance with 40 CFR 122.44 (f).
- b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in

the permit, if that discharge will exceed the highest of the following "notification levels":

- (1) Five hundred micrograms per liter (500 µg/L);
- (2) One milligram per liter (1 mg/l) for antimony;
- (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21 (g) (7); or
- (4) The level established by the director of the Environmental Protection Agency in accordance with 40 CFR 122.44 (f).

6. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. As long as the conditions related to the provisions of "Bypass of Treatment Facilities" (Part II.A.5), "Upset Conditions" (Part II.A.6), and "Power Failures" (Part II.A.8) are satisfied then they shall not be considered as noncompliance.

7. Need to Halt or Reduce Activity not a Defense

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

8. Oil and Hazardous Substance Liability

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

9. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state or federal law or regulation. In addition, issuance of this permit does not substitute for any other permits required under the Clean Water Act or any other federal, state, or local law.

10. Property Rights

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

11. Duty to Reapply

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

12. Duty to Provide Information

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

13. Other Information

When the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or any report to the administrator of the Water Quality Division, it shall promptly submit such facts or information.

14. Permit Action

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

PART III

A. OTHER REQUIREMENTS

1. Percentage Removal Requirements

The arithmetic mean of the Total BOD and the Total Suspended Solids concentrations for effluent samples collected in a period of 30 consecutive days shall not exceed 15 percent of the arithmetic mean of the concentrations for influent samples collected at approximately the same times during the same period (85 percent removal). This is in addition to the concentration limitations on Total BOD, and Total Suspended Solids. In the case of stabilization pond treatment systems, this section does not apply to the parameter Total Suspended Solids.

2. Violations Resulting from Overloading

Should there be a violation of any conditions of this permit, the Wyoming Department of Environmental Quality has the authority under Sections 35-11-901 and 35-11-902 of the Wyoming Environmental Quality Act to proceed in a court of competent jurisdiction to restrict or prohibit further connections to the treatment system covered by this permit by any sources not utilizing the system prior to the finding that such a violation occurred.

3. Discharge Duration

If the rate of discharge is controlled, that rate and duration of discharge shall be reported.

4. Flow Measurement

At the request of the Administrator of the Water Quality Division, the permittee must be able to show proof of the accuracy of any flow measuring device used in obtaining data submitted in the monitoring report. The flow measuring device must indicate values of within plus or minus ten (10) percent of the actual flow being measured.

5. Sewer Overflow Located Prior to Waste Treatment Facility

Overflow structures shall be maintained and operated in such a manner that no discharge shall occur except to prevent health hazards, severe property damage or loss of treatment capacity.

Such overflows shall satisfy Wyoming water quality standards and/or any appropriate federal or state effluent limitations. Following documentation of specific water quality standard or effluent standard violations resulting from such overflows, specific numerical effluent limitations, or the requirement for elimination of the overflow structures, may be included upon reissuance or revision of this permit.

6. Compliance with Construction Grant

In the case of publicly owned treatment works, the permittee shall comply with those terms of any construction grant implementing the provisions of Section 201 (b) through (g) of the Clean Water Act.

7. 208 (b) Plans

This permit may be modified, suspended or revoked to comply with the provisions of any 208 (b) plan certified by the Governor of the State of Wyoming.

8. Reopener Provision

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

- a. The state water quality standards of the receiving water(s) to which the permittee discharges are modified in such a manner as to require different effluent limits than contained in this permit;
- b. A total maximum daily load (TMDL) and/or watershed management plan is developed and approved by the state and/or the Environmental Protection Agency which specifies a wasteload allocation for incorporation in this permit;
- c. A revision to the current water quality management plan is approved and adopted which calls for different effluent limitations than contained in this permit;
- d. Downstream impairment is observed and the permitted facility is contributing to the impairment;
- e. The limits established by the permit no longer attain and/or maintain applicable water quality standards;
- f. The permit does not control or limit a pollutant that has the potential to cause or contribute to a violation of a state water quality standard.
- g. If new applicable effluent guidelines and/or standards have been promulgated and the standards are more stringent than the effluent limits established by the permit.
- h. In order to protect water quality standards in neighboring states, effluent limits may be incorporated into this permit or existing limits may be modified to ensure that the appropriate criteria, water quality standards and assimilative capacity are attained.

9. Permit Modification

After notice and opportunity for a hearing, this permit may be modified, suspended or revoked in whole or in part during its term for cause including, but not limited to, the following:

- a. Violation of any terms or conditions of this permit;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
- d. If necessary to comply with any applicable effluent standard or limitation issued or approved under Sections 301 (b) (2) (C) and (D), 304 (b) (2) and 307 (a) (2) of the federal act, if the effluent standard or limitation so issued or approved:
 - (1) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) Controls any pollutant not limited in the permit.

10. Toxicity Limitation - Reopener Provision

This permit may be reopened and modified (following proper administrative procedures) to include a new compliance date, additional or modified numerical limitations, a new or different compliance schedule, a change in the whole effluent protocol or any other conditions related to the control of toxicants if one or more of the following events occur:

- a. Toxicity was detected late in the life of the permit near or past the deadline for compliance;
- b. The toxicity reduction evaluation (TRE) results indicate that compliance with the toxic limits will require an implementation schedule past the date for compliance and the permit issuing authority agrees with the conclusion;
- c. The TRE results indicate that the toxicant(s) represent pollutant(s) that may be controlled with specific numerical limits and the permit issuing authority agrees that numerical controls are the most appropriate course of action;
- d. Following the implementation of numerical controls on toxicants, the permit issuing authority agrees that a modified whole effluent protocol is necessary to compensate for those toxicants that are controlled numerically;
- e. The TRE reveals other unique conditions or characteristics which, in the opinion of the permit issuing authority, justify the incorporation of unanticipated special conditions in the permit.

11. Severability

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

12. Penalties for Falsification of Reports

The federal act provides that any person who knowingly makes any false statement, representation or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation or by imprisonment for not more than two (2) years per violation or both.

B. INDUSTRIAL WASTES

1. Industrial Waste Management

- a) The Permittee has the responsibility to protect the Publicly-Owned Treatment Works (POTW) from pollutants which would inhibit, interfere, or otherwise be incompatible with operation of the treatment works including interference with the use or disposal of municipal sludge.
- b) Pretreatment Standards (40 CFR Section 403.5) developed pursuant to Section 307 of the Federal Clean Water Act (the Act) require that the Permittee shall not allow, under any circumstances, the introduction of the following pollutants to the POTW from any source of nondomestic discharge:
 - i) Any pollutant which may cause Pass Through or Interference;
 - ii) Pollutants which create a fire or explosion hazard in the POTW, including, but not limited to, waste streams with a closed cup flashpoint of less than sixty (60) degrees Centigrade (140 degrees Fahrenheit) using the test methods specified in 40 CFR Section 261.21;
 - iii) Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with a pH of lower than 5.0 s.u., unless the treatment facilities are specifically designed to accommodate such discharges;
 - iv) Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, or other interference with the operation of the POTW;
 - v) Any pollutant, including oxygen demanding pollutants (e.g., BOD), released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with any treatment process at the POTW;
 - vi) Heat in amounts which will inhibit biological activity in the POTW resulting in Interference, but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds forty (40) degrees Centigrade (104 degrees Fahrenheit)

unless the Approval Authority, upon request of the POTW, approves alternate temperature limits;

- vii) Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through at the POTW;
 - viii) Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;
 - ix) Any trucked or hauled pollutants, except at discharge points designated by the POTW; and
 - x) Any specific pollutant which exceeds a local limitation established by the Permittee in accordance with the requirements of 40 CFR Section 403.5(c) and (d).
- b) EPA shall be the Approval Authority and the mailing address for all reporting and notifications to the Approval Authority shall be: Office of Enforcement, Compliance, and Environmental Justice - Water (8ENF-W-NP), USEPA - Region VIII, 1595 Wynkoop, Denver, CO 80202. Should the State be delegated authority to implement and enforce the Pretreatment Program in the future, the Permittee shall be notified of the delegation and the **Wyoming DEQ/WQD** shall become the Approval Authority.
- d) In addition to the general limitations expressed above, more specific Pretreatment Standards have been and will be promulgated for specific industrial categories under Section 307 of the Act (40 CFR Parts 405-471, 40 CFR chapter I, subchapter N.).
- e) The Permittee must notify the Approval Authority, of any new introductions by new or existing industrial users or any substantial change in pollutants from any industrial user within sixty (60) days following the introduction or change, as required in 40 CFR 122.42(b)(1-3). Such notice must identify:
- (i) Any new introduction of pollutants into the POTW from an industrial user which would be subject to Sections 301, 306, and 307 of the Act if it were directly discharging those pollutants; or
 - (ii) Any substantial change in the volume or character of pollutants being introduced into the POTW by any industrial user;
 - (iii) For the purposes of this section, adequate notice shall include information on:
 - (1) The identity of the industrial user;
 - (2) The nature and concentration of pollutants in the discharge and the average and maximum flow of the discharge to be introduced into the POTW; and
 - (3) Any anticipated impact of the change on the quantity or quality of effluent to be discharged from or biosolids produced at such POTW.
 - (iv) For the purposes of this section, a significant industrial user shall include:

- (1) Any discharger subject to Categorical Pretreatment Standards under Section 307 of the Act and 40 CFR chapter I, subchapter N;
- (2) Any discharger which has a process wastewater flow of 25,000 gallons or more per day;
- (3) Any discharger contributing five percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant;
- (4) Any discharger who is designated by the Approval Authority as having a reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standards or requirements;

f) The Permittee shall sample and analyze the effluent for the following pollutants:

Total Arsenic	Total Nickel
Total Cadmium	Total Selenium
Total Chromium	Total Silver
Total Copper	Total Zinc
Total Lead	Total Cyanide
Total Mercury	Total Phenols
Total Molybdenum	

The sampling shall commence within thirty (30) days of the effective date of this permit and continue at the following frequency:

Sampling Schedule for Non-Approved Programs:

Majors (1.0 MGD or greater)	1 per year
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Sampling and analytical procedures shall be in accordance with guidelines established in 40 CFR Part 136. Where sampling methods are not specified the effluent samples collected shall be composite samples consisting of at least twelve (12) aliquots collected at approximately equal intervals over a representative 24 hour period and composited according to flow. Where a flow proportioned composite sample is not practical, the Permittee shall collect at least four (4) grab samples, taken at equal intervals over a representative 24 hour period. Lagoon treatment systems may collect a single effluent grab sample.

The results of all analyses shall be attached to, and reported along with the Discharge Monitoring Report (DMR) submitted for the end of that reporting period.

- g) At such time as a specific pretreatment limitation becomes applicable to an industrial user of the Permittee, the **Wyoming DEQ/WQD** and/or Approval Authority may, as appropriate:
- (i) Amend the Permittee's **WYPDES** discharge permit to specify the additional pollutant(s) and corresponding effluent limitation(s) consistent with the applicable Pretreatment Standards; or,
 - (i) Amend the Permittee's **WYPDES** discharge permit to require the Permittee to develop and submit an approvable Pretreatment program under a compliance schedule, in accordance with procedures in 40 CFR 403.8(e). The modification of a POTW's

NPDES Permit for the purposes of incorporating a POTW Pretreatment Program approved in accordance with the procedure in §403.11 shall be deemed a minor Permit modification subject to the procedures in 40 CFR 122.63(g); or,

- (ii) Require the Permittee to specify, by ordinance, order, or other enforceable means, the type of pollutant(s) and the maximum amount which may be discharged to the Permittee's POTW for treatment. Such requirement shall be imposed in a manner consistent with the POTW program development requirements of the General Pretreatment Regulations at 40 CFR Part 403; and/or,
 - (iii) Require the Permittee to monitor its discharge for any pollutant which may likely be discharged from the Permittee's POTW, should the industrial user fail to properly pretreat its waste.
- h) The Approval Authority retains, at all times, the right to take legal action against any source of nondomestic discharge, whether directly or indirectly controlled by the Permittee, for violations of a permit, order or similar enforceable mechanism issued by the Permittee, violations of any Pretreatment Standard or requirement, or for failure to discharge at an acceptable level under national standards issued by EPA under 40 CFR, chapter I, subchapter N. In those cases where a **WYPDES** permit violation has occurred because of the failure of the Permittee to properly develop and enforce Pretreatment Standards and requirements as necessary to protect the POTW, the Approval Authority shall hold the Permittee and/or industrial user responsible and may take legal action against the Permittee as well as the industrial user(s) contributing to the permit violation.

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