Official Draft Public Notice Version **May 20, 2024**
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STATE OF UTAH
DIVISION OF WATER QUALITY
DEPARTMENT OF ENVIRONMENTAL QUALITY
SALT LAKE CITY, UTAH

UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES) PERMITS

Major Municipal Permit No. **UT0021130**

In compliance with provisions of the Utah *Water Quality Act, Title 19, Chapter 5, Utah Code* (the *"Act"*),

GRANTSVILLE CITY CORPORATION (PERMITTEE)

is hereby authorized to discharge from

GRANTSVILLE CITY WATER RECLAMATION FACILITY

TO RECEIVING WATERS NAMED **BLUE LAKES**,

in accordance with specific limitations, outfalls, and other conditions set forth herein.

This permit shall become effective on <<Month>> 01, 2024

This permit expires at midnight on March 31, 2029.

Signed this XXth day of <<Month>> XX, 2024.

_____
John K. Mackey, P.E.
Director

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I. DISCHARGE LIMITATIONS AND REPORTING REQUIREMENTS

A. Description of Discharge Points. The authorization to discharge wastewater provided under this part is limited to those outfalls specifically designated below as discharge locations. Discharges at any location not authorized under a UPDES permit are violations of the *Act* and may be subject to penalties under the *Act*. Knowingly discharging from an unauthorized location or failing to report an unauthorized discharge may be subject to criminal penalties as provided under the *Act*.

Outfall Number(s)	Location of Discharge Outfall(s)
001	Located at latitude 40°37'15" and longitude 112°26'50". The discharge is located north of the disinfection building, in the NW ¼ section 29, T2S R5W, via a constructed ditch that travels approximately 150 yards to the north, before entering Blue Lakes

B. Narrative Standard. It shall be unlawful, and a violation of this permit, for the Permittee to discharge or place any waste or other substance in such a way as will be or may become offensive such as unnatural deposits, floating debris, oil, scum, or other nuisances such as color, odor or taste, or cause conditions which produce undesirable aquatic life or which produce objectionable tastes in edible aquatic organisms; or result in concentrations or combinations of substances which produce undesirable physiological responses in desirable resident fish, or other desirable aquatic life, or undesirable human health effects, as determined by a bioassay or other tests performed in accordance with standard procedures.

C. Specific Limitations and Self-Monitoring Requirements.

1. Effective immediately, and lasting through the life of this permit, there shall be no acute or chronic toxicity in Outfall 001as defined in *Part VIII* of this permit.

2.

a. Effective immediately and lasting the duration of this permit, the Permittee is authorized to discharge from Outfall 001. Such discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Effluent Limitations [1]				
	Maximum Monthly Avg	Maximum Weekly Avg	Yearly Average	Daily Minimum	Daily Maximum
Total Flow, MGD	1.5	-	-	-	-
BOD_5, mg/L	25	35	-	-	-
BOD_5 Min. % Removal	85	-	-	-	
TSS, mg/L	25	35	-	-	-
TSS Min. % Removal	85	-	-	-	-
Dissolved Oxygen, mg/L	-	-	-	4	-
E. coli, No./100mL	126	158	-	-	-
pH, Standard Units	-	-	-	6.5	9
1. Definitions, Part VIII, for definition of terms.					

Effluent Concentration and Mass Loading Limits [1]					
Parameter	Maximum Monthly Avg (mg/L)	Maximum Weekly Avg (mg/L)	Loading cap (lbs./Year)	Loading cap (lbs./Month)	Daily Maximum (mg/L)
Interim Limits [2]					
Total Ammonia (as N)					
Summer (Jul-Sep)	-	-	-	412.8	3.2
Fall (Oct-Dec)	2.5	-	-	-	3.2
Winter (Jan-Mar)	2.9	-	-	-	3.2
Spring (Apr-Jun)	1.7	-	-	-	3.2
Total Phosphorous	-	-	2,839	-	-
Final Limits [3]					
Parameter	Maximum Monthly Avg (mg/L)	Maximum Weekly Avg (mg/L)	Annual Average (mg/L)	Loading cap (lbs./Month)	Daily Maximum (mg/L)
Total Ammonia (as N)					
Summer (Jul-Sep)	-	-	-	337.8	2.3
Fall (Oct-Dec)	2.2	-	-	-	2.3
Winter (Jan-Mar)	2.3	-	-	-	2.3
Spring (Apr-Jun)	1.5	-	-	-	2.3
Total Phosphorous	-	-	1	-	-
1. Definitions, Part VIII, for definition of terms.					
2. Interim limits are in effect until December 31, 2027.					
3. Final limits go into effect on January 1, 2028.					

Self-Monitoring and Reporting Requirements[1]			
Parameter	Frequency	Sample Type	Units
Total Flow [4], [5]	Continuous	Recorder	MGD
BOD_5, Influent [6]	Weekly	Composite	mg/L
Effluent	Weekly	Composite	mg/L
TSS, Influent[4]	Weekly	Composite	mg/L
Effluent	Weekly	Composite	mg/L
E. coli	Weekly	Grab	No./100mL
pH	Weekly	Grab	SU
Total Ammonia (as N)	Weekly	Grab	mg/L
DO	Weekly	Grab	mg/L
TDS	Monthly	Grab	mg/L
Metals[7], Influent	2 X Yearly	Composite/Grab	mg/L
Effluent	2 X Yearly	Composite/Grab	mg/L
Organic Toxics [8], Influent	Odd Calendar Years	Grab	
Effluent	Odd Calendar Years	Grab	mg/L
TBPEL Rule Monitoring [9]			
Total Ammonia (as N)	Monthly	Composite	mg/L
Orthophosphate, (as P)			
Effluent	Monthly	Composite	mg/L
Phosphorus, Total			
Influent	Monthly	Composite	mg/L
Effluent	Monthly	Composite	mg/L

Self-Monitoring and Reporting Requirements[1]			
Parameter	Frequency	Sample Type	Units
Total Kjeldahl Nitrogen, TKN (as N) Influent Effluent	 Monthly Monthly	 Composite Composite	 mg/L mg/L
Nitrate, NO3	Monthly	Composite	mg/L
Nitrite, NO2	Monthly	Composite	mg/L

1. Definitions, Part VIII, for definition of terms.
4. Flow measurements of influent/effluent volume shall be made in such a manner that the Permittee can affirmatively demonstrate that representative values are being obtained.
5. If the rate of discharge is controlled, the rate and duration of discharge shall be reported.
6. In addition to monitoring the final discharge, influent samples shall be taken and analyzed for this constituent at the same frequency as required for this constituent in the discharge.
7. Testing for metals listed in the table below. The testing is conducted to support future RP analysis. Grantsville will be required to have the effluent analyzed for mercury using a method that is sensitive enough to demonstrate a presence or absence of mercury in the effluent, such as EPA Method 245.7 or 1631.
8. A list of the organics to be tested can be found in 40CFR122 appendix D table II.
9. These reflect changes required with the adoption of UAC R317-1-3.3, Technology-based Phosphorus Effluent Limits rule.

Metals to be Monitored for RP
Total Arsenic
Total Cadmium
Total Chromium
Total Copper
Total Cyanide
Total Lead
Total Mercury
Total Molybdenum
Total Nickel
Total Selenium
Total Silver
Total Zinc

3. Compliance Schedule

a. Ammonia and Phosphorus

Compliance Schedule for Ammonia and Phosphorus	
Date	Milestone
February 1, 2025	Submit Project Compliance Report.
February 1, 2026	Submit Project Compliance Report.
February 1, 2027	Submit Project Compliance Report. Deadline to request an extension to the Compliance Schedule and compliance dates. Deadline to submit Permit Application to modify permit and

	incorporate final design and processes into permit.
January 1, 2028	Final Effluent limitations go into effect.
February 1, 2028	Submit Project Compliance Report.

b. The annual Project Compliance Report mentioned in the above table will contain, at the minimum, the below items. The final Compliance Report will not contain item 2.:

(1) An update of the work conducted during the previous year to include major milestone milestones completed and delays encountered.
(2) A rough schedule for the upcoming year, including major milestones to be reached and the biggest anticipated potential delays.
(3) Influent and effluent monitoring data for the nutrient and flow summary of effluent monitoring.

c. A violation of the Compliance Schedule is a violation of the UPDES permit.

4. Acute/Chronic Whole Effluent Toxicity (WET) Testing.

The Permittee is a minor municipal facility that will be discharging an infrequent amount of effluent, in which toxicity is neither an existing concern nor likely to be present. Also, the receiving irrigation ditch is regularly dry; therefore there is not any available data to conclude that the irrigation ditch is impaired. Based on these considerations and the absence of receiving stream water quality monitoring data, there is no reasonable potential for toxicity in the Permittee's discharge (per State of Utah Permitting and Enforcement Guidance Document for WET Control). As such, there will be no numerical WET limitations or WET monitoring requirements in this permit. However, the permit will contain a toxicity limitation re-opener provision that allows for modification of the permit should additional information indicate the presence of toxicity in the discharge.

D. Reporting of Monitoring Results.

1. Reporting of Wastewater Monitoring Results Monitoring results obtained during the previous month shall be summarized for each month and reported by NetDMR, entered into NetDMR no later than the 28th day of the month following the completed reporting period. The first report is due on <<Month>> 28, 2024. If no discharge occurs during the reporting period, "no discharge" shall be reported. Legible copies of these, and all other reports including whole effluent toxicity (WET) test reports required herein, shall be signed and certified in accordance with the requirements of *Signatory Requirements (see Part VII.G)*, and submitted by NetDMR.

Other reports should be mailed in to the Division of Water Quality at the following address:

Department of Environmental Quality
Division of Water Quality
PO Box 144870
Salt Lake City, Utah 84114-4870

II. PRETREATMENT REQUIREMENTS

A. Definitions. For this section the following definitions shall apply:

1. *Indirect Discharge* means the introduction of pollutants into a Publicly Owned Treatment Works (POTW) from any non-domestic source regulated under section 307 (b), (c) or (d) of the CWA.

2. *Interference* means a discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

   a. Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and

   b. Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

3. *Local Limit* is defined as a limit designed to prevent Pass Through, Interference or violations of General or Specific Prohibitions. These limits are developed in accordance with *40 CFR 403.5(c).*

4. *Pass Through means* a Discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

5. *Publicly Owned Treatment Works* or *POTW* means a treatment works as defined by section 212 of the CWA, which is owned by a State or municipality (as defined by section 502(4) of the CWA). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality as defined in section 502(4) of the CWA, which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works.

6. *Significant Industrial User (SIU)* is defined as an Industrial User discharging to a POTW that satisfies any of the following:

   a. Any other Industrial User that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater);

   b. contributes a process wastestream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW Treatment plant;

c. Is subject to Categorical Pretreatment Standards, or

d. Has a reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standard or Requirement.

7. *User or Industrial User (IU)* means a source of Indirect Discharge

B. Pretreatment Monitoring and Reporting Requirements.

1. The design capacity of the municipal wastewater treatment facility is less than 5 MGD; therefore, the Permittee will not be required to develop an Approved POTW Pretreatment Program. However, in order to determine if the development of an Approved POTW Pretreatment Program is warranted, the Permittee shall conduct an **industrial waste survey**, as described in *Part II.C.1*. An updated industrial waste survey must be submitted to the Pretreatment Coordinator for the Division of Water Quality within 60 of the permit being issued.

2. Monitoring will be required of the Permittee for the pretreatment requirements at this time. If changes occur, monitoring may be required for parameters not currently listed in the permit, or current monitoring requirements may be required to be increased to determine the impact of an Industrial User or to investigate sources of pollutant loading. This could include but is not limited to sampling of the influent and effluent of the wastewater treatment plant and within the collection system.

3. Influent and Effluent Monitoring and Reporting Requirements. The Permittee shall sample and analyze both the influent and effluent, for the parameters listed in the Pretreatment Monitoring Table.

Pretreatment Monitoring Table				
Parameter	MDL	Sample Type	Frequency	Units
Total Arsenic	0.100	Composite	2 X Yearly	mg/L
Total Cadmium	0.0016			
Total Chromium	0.011			
Total Copper	0.0229			
Total Lead	0.0081			
Total Molybdenum	NA			
Total Nickel	0.132			
Total Selenium	0.0046			
Total Silver	0.0213			
Total Zinc	0.297			
Total Cyanide	0.0052	Composite/Grab		
Total Mercury	0.000012			
Organic Toxic Pollutants	NA		Odd Calendar Years	

a. The minimum detection limit (MDL) of the test method used for analysis must be below this limit, if a test method is not available the Permittee must submit documentation to the Director regarding the method that will be used

b. In addition, the Permittee shall analyze the treatment facility influent and effluent for the presence of the toxic pollutants listed in *40 CFR 122* Appendix D Table II. If

expected to be present surfactants and *40 CFR 122* Appendix D Table V must be sampled at the frequency stated in the Pretreatment Monitoring Table. The pesticides fraction of Appendix D, Table II is suspended unless pesticides are expected to be present, if present sampling must occurred as stated in the Pretreatment Monitoring Table.

4. The results of the analyses of metals, cyanide and Organic Toxic Pollutants shall be submitted along with the Discharge Monitoring Report (DMR) at the end of the earliest possible reporting period. Also, the Permittee must submit a copy of the Organic Toxic Pollutants data to the Pretreatment Coordinator for the Division of Water Quality via email.

5. For Local Limit parameters it is recommended that the most sensitive method be used for analysis. This will determine if the parameter is present and provide removal efficiencies based on actual data rather than literature values. If a parameter load is greater than the allowable head works load, for any pollutant listed in Part II.B.3. or Part I, or a pollutant of concern listed in the Local Limit development document or determined by the Director, the Permittee must report this information to the Pretreatment Coordinator for the Division of Water Quality. If the loading exceeds the allowable headworks load, increase sampling must occur based on the requirements given by the Pretreatment Coordinator for the Division of Water Quality. If needed sampling may need to occur to find the source(s) of the increase. This may include sampling of the collection system. Notification regarding the exceedances of the allowable headworks loading can be provided via email.

C. Industrial Wastes.

1. The "Industrial Waste Survey" or "IWS" as required by *Part II.B.1*. consists of;

   a. Identifying each Industrial User (IU) and determining if the IU is an SIU,

   b. Determination of the qualitative and quantitative characteristics of each discharge, and

   c. Appropriate production data.

2. The IWS must be maintained and updated with IU information as necessary, to ensure that all IUs are properly permitted or controlled at all times. Updates must be submitted to the Director sixty (60) days following a change to the IWS.

3. Notify all IUs of their obligation to comply with applicable requirements under *Subtitles C and D* of RCRA.

4. The Permittee must notify the Director of any new introductions by new or existing SIUs or any substantial change in pollutants from any major industrial source. Such notice must contain the information described in 1. above, and be forwarded no later than sixty (60) days following the introduction or change.

D. General and Specific Prohibitions. The Permittee must ensure that no IU violates any of the general or specific standards. If an IU is found violating a general or specific standard the Permittee must notify the Director within 24 hours of the event. The general prohibitions and the specific prohibitions apply to each User introducing pollutants into a POTW whether or not the User is subject to other Pretreatment Standards or any national, State or local Pretreatment Requirements.

1. General prohibition Standards. A User may not introduce into a POTW any pollutant(s) which cause Pass Through or Interference.

2. Specific Prohibited Standards. Developed pursuant to *Section 307* of *The Water Quality Act of 1987* require that under no circumstances shall the Permittee allow introduction of the following pollutants into the waste treatment system from any User (*40 CFR 403.5*):

   a. Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW), including, but not limited to, waste-streams with a closed cup flashpoint of less than 140˚F (60˚C);

   b. Pollutants, which will cause corrosive structural damage to the POTW, but in no case, discharges with a pH lower than 5.0;

   c. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in Interference;

   d. Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a discharge at such volume or strength as to cause Interference in the POTW;

   e. Heat in amounts, which will inhibit biological activity in the POTW, resulting in Interference, but in no case, heat in such quantities that the influent to the sewage treatment works exceeds 104˚F (40˚C);

   f. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through;

   g. Pollutants which result in the presence of toxic gases, vapor, or fumes within the POTW in a quantity that may cause worker health or safety problems; or,

   h. Any trucked or hauled pollutants, except at discharge points designated by the POTW.

   i. Any pollutant that causes Pass Through or Interference at the POTW.

   j. Any prohibited standard which the Permittee has adopted in an ordinance or rule to control IU discharge to the POTW.

3. In addition to the general and specific limitations expressed above, more specific pretreatment limitations have been and will be promulgated for specific industrial categories under *Section 307* of *the Water Quality Act of 1987 as amended (WQA). (See 40 CFR, Subchapter N, Parts 400* through *500*, for specific information).

E. Significant Industrial Users Discharging to the POTW. The Permittee shall provide adequate notice to the Director and the Division of Water Quality Pretreatment Coordinator of;

1. Any new introduction of pollutants into the treatment works from an indirect discharger (i.e., Industrial User) which would be subject to *Sections 301* or *306* of the *WQA* if it were directly discharging those pollutants;

2. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit; and

3. For the purposes of this section, adequate notice shall include information on:

   a. The quality and quantity of effluent to be introduced into such treatment works; and,

   b. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from such publicly owned treatment works.

4. Any IU that must comply with applicable requirements under Subtitles C and D of RCRA.

F. Change of Conditions. At such time as a specific pretreatment limitation becomes applicable to an Industrial User of the Permittee, the Director may, as appropriate, do the following:

   1. Amend the Permittee's UPDES discharge permit to specify the additional pollutant(s) and corresponding effluent limitation(s) consistent with the applicable national pretreatment limitation;

   2. Require the Permittee to specify, by ordinance, contract, or other enforceable means, the type of pollutant(s) and the maximum amount which may be discharged to the Permittee's facility 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 403*;

   3. Require the Permittee to monitor its discharge for any pollutant, which may likely be discharged from the Permittee's facility, should the Industrial User fail to properly pretreat its waste; and/or

   4. Require the Permittee to develop an Approved POTW Pretreatment Program.

G. Legal Action. The Director retains, at all times, the right to take legal action against the Industrial User and/or the treatment works, in those cases where a permit violation has occurred because of the failure of an Industrial User to discharge at an acceptable level. If the Permittee has failed to properly delineate maximum acceptable industrial contributor levels, the Director will look primarily to the Permittee as the responsible party.

H. Local Limits. If Local Limits are developed per R317-8-8.5(4)(b) to protect the POTW from Pass Through or Interference, then the POTW must submit limits to DWQ for review and public notice, as required by R317-8-8.5(4)(c). Local Limits should be developed in accordance with the latest revision of the EPA Local Limits Development Guidance and per R317-8-8.5.

III. BIOSOLIDS REQUIREMENTS

The State of Utah has adopted the *40 CFR Part 503* federal regulations for the disposal of sewage sludge (biosolids) by reference. However, since this facility is a lagoon, there is not any regular sludge production. Therefore *40 CFR Part 503* does not apply at this time. In the future, if the sludge needs to be removed from the lagoons and is disposed in some way, the Division of Water Quality must be contacted prior to the removal of the sludge to ensure that all applicable state and federal regulations are met.

IV. STORM WATER REQUIREMENTS.

A. Industrial Storm Water Permit. Based on the type of industrial activities occurring at the facility, the Permittee is required to maintain separate coverage or an appropriate exclusion under the Multi-Sector General Permit (MSGP) for Storm Water Discharges Associated with Industrial Activities (UTR000000). If the facility is not already covered, the Permittee has 30 days from when this permit is issued to submit the appropriate Notice of Intent (NOI) for the MSGP or exclusion documentation.

B. Construction Storm Water Permit. Any construction at the facility that disturbs an acre or more of land, including less than an acre if it is part of a common plan of development or sale, is required to obtain coverage under the UPDES Construction General Storm Water Permit (UTRC00000). Permit coverage must be obtained prior to land disturbance. If the site qualifies, a Low Erosivity Waiver (LEW) Certification may be submitted instead of permit coverage.

V. MONITORING, RECORDING & GENERAL REPORTING REQUIREMENTS

A. Representative Sampling. Samples taken in compliance with the monitoring requirements established under *Part I* shall be collected from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge. Samples of biosolids shall be collected at a location representative of the quality of biosolids immediately prior to the use-disposal practice.

B. Monitoring Procedures. Monitoring must be conducted according to test procedures approved under Utah Administrative Code ("UAC") *R317-2-10*, *UAC R317-8-4.1(10)(d)*, and/or *40 CFR 503* utilizing sufficiently sensitive test methods unless other test procedures have been specified in this permit. Monitoring must be conducted according to the test procedures listed above unless another method is required under 40 CFR subchapters N or O. Sufficiently sensitive test method means: (1) The method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or (2) The method has the lowest ML of the analytical methods approved under *40 CFR part 136* or required under *40 CFR chapter I, subchapter N or O* for the measured pollutant or pollutant parameter as per *40 CFR 122.44(i)(1)(iv)(A).*

C. 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 six months per violation, or by both.

D. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date.

E. Additional Monitoring by the Permittee. If the Permittee monitors any parameter more frequently than required by this permit, using test procedures approved under Permit Part V.B., the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or the Biosolids Report Form.

F. Records Contents. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements:
2. The individual(s) who performed the sampling or measurements;
3. The date(s) and time(s) analyses were performed;
4. The individual(s) who performed the analyses;
5. The analytical techniques or methods used; and,
6. The results of such analyses.

G. Retention of Records. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least five years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time. A copy of this UPDES permit must be maintained on site during the duration of activity at the permitted location

H. Twenty-four Hour Notice of Noncompliance Reporting.

1. The Permittee shall (orally) report any noncompliance including transportation accidents, spills, and uncontrolled runoff from biosolids transfer or land application sites which may

seriously endanger health or environment, as soon as possible, but no later than twenty-four (24) hours from the time the Permittee first became aware of circumstances. The report shall be made to the Division of Water Quality (DWQ) via the 24-hour answering service (801) 536-4123.

2. The following occurrences of noncompliance shall initially be reported by telephone to the DWQ via the 24-hour answering service as soon as possible but no later than 24 hours from the time the Permittee becomes aware of the circumstances:

   a. Any noncompliance which may endanger health or the environment;

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

   c. Any upset which exceeds any effluent limitation in the permit (See *Part VI.H*, *Upset Conditions*.);

   d. Violation of a daily discharge limitation for any of the pollutants listed in the permit. For other permit violations which will not endanger health or the environment, DWQ may otherwise be notified during business hours (801) 536-4300; or,

   e. Violation of any of the Table 3 metals limits, the pathogen limits, the vector attraction reduction limits or the management practices for biosolids that have been sold or given away.

3. A written submission shall also be provided within five days of the time that the Permittee becomes aware of the circumstances. The written submission shall contain:

   a. A description of the noncompliance and its cause;

   b. The period of noncompliance, including exact dates and times;

   c. The estimated time noncompliance is expected to continue if it has not been corrected;

   d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and,

   e. Steps taken, if any, to mitigate the adverse impacts on the environment and human health during the noncompliance period.

4. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Division of Water Quality, (801) 536-4300.

5. Reports shall be submitted to the addresses in *Part I.D*, *Reporting of Monitoring Results*.

I. Other Noncompliance Reporting. Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for *Part I.D* are submitted. The reports shall contain the information listed in *Part V.H.3*

J. Inspection and Entry The Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

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

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, including but not limited to, biosolids treatment, collection, storage facilities or area, transport vehicles and containers, and land application sites;

4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the *Act*, any substances or parameters at any location, including, but not limited to, digested biosolids before dewatering, dewatered biosolids, biosolids transfer or staging areas, any ground or surface waters at the land application sites or biosolids, soils, or vegetation on the land application sites; and,

5. The Permittee shall make the necessary arrangements with the landowner or leaseholder to obtain permission or clearance, the Director, or authorized representative, upon the presentation of credentials and other documents as may be required by law, will be permitted to enter without delay for the purposes of performing their responsibilities.

VI. COMPLIANCE RESPONSIBILITIES

A. Duty to Comply. The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of *the Act* and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity, which may result in noncompliance with permit requirements.

B. Penalties for Violations of Permit Conditions. The *Act* provides that any person who violates a permit condition implementing provisions of the *Act* is subject to a civil penalty not to exceed $10,000 per day of such violation. Except as provided at *Part VI.G*, *Bypass of Treatment Facilities* and *Part VI.H*, *Upset Conditions*, nothing in this permit shall be construed to relieve the Permittee of the civil or criminal penalties for noncompliance.

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

D. Duty to Mitigate. The Permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit, which has a reasonable likelihood of adversely affecting human health or the environment. The Permittee shall also take all reasonable steps to minimize or prevent any land application in violation of this permit.

E. Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, which are installed by a Permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

F. Removed Substances. Collected screening, grit, solids, sludge, or other pollutants removed in the course of treatment shall be disposed of in such a manner so as to prevent any pollutant from entering any waters of the state or creating a health hazard. Sludge/digester supernatant and filter backwash shall not directly enter either the final effluent or waters of the state by any other direct route.

G. Bypass of Treatment Facilities.

1. Bypass Not Exceeding Limitations. The Permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to paragraph 2 and 3 of this section.

2. Prohibition of Bypass.

a. Bypass is prohibited, and the Director may take enforcement action against a Permittee for bypass, unless:

(1) Bypass was unavoidable to prevent loss of human life, personal injury, or severe property damage;

(2) There were no feasible alternatives to 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 backup equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance, and

(3) The Permittee submitted notices as required under *Part VI.G.3*.

b. The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed in *Parts VI.G.2.a (1), (2) and (3)*.

3. Notice.

a. *Anticipated bypass*. Except as provided above in *Part VI.G.2* and below in *Part VI.G.3.b*, if the Permittee knows in advance of the need for a bypass, it shall submit prior notice, at least ninety days before the date of bypass. The prior notice shall include the following unless otherwise waived by the Director:

(1) Evaluation of alternative to bypass, including cost-benefit analysis containing an assessment of anticipated resource damages:

(2) A specific bypass plan describing the work to be performed including scheduled dates and times. The Permittee must notify the Director in advance of any changes to the bypass schedule;

(3) Description of specific measures to be taken to minimize environmental and public health impacts;

(4) A notification plan sufficient to alert all downstream users, the public and others reasonably expected to be impacted by the bypass;

(5) A water quality assessment plan to include sufficient monitoring of the receiving water before, during and following the bypass to enable evaluation of public health risks and environmental impacts; and,

(6) Any additional information requested by the Director.

b. *Emergency Bypass*. Where ninety days advance notice is not possible, the Permittee must notify the Director, and the Director of the Department of Natural Resources, as soon as it becomes aware of the need to bypass and provide to the Director the information in *Part VI.G.3.a.(1) through (6)* to the extent practicable.

c. *Unanticipated bypass*. The Permittee shall submit notice of an unanticipated bypass to the Director as required under *Part IV.H*, Twenty-Four Hour Reporting. The Permittee shall also immediately notify the Director of the Department of Natural Resources, the public and downstream users and shall implement measures to minimize impacts to public health and environment to the extent practicable.

H. Upset Conditions.

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based permit effluent limitations if the requirements of paragraph 2 of this section are met. Director's administrative determination regarding a claim of upset cannot be judiciously challenged by the Permittee until such time as an action is initiated for noncompliance.

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

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

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

   c. The Permittee submitted notice of the upset as required under *Part V.H*, *Twenty-four Hour Notice of Noncompliance Reporting*; and,

   d. The Permittee complied with any remedial measures required under *Part VI.D*, *Duty to Mitigate*.

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

VII. GENERAL REQUIREMENTS

A. Planned Changes. The Permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 122.29(b); or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit nor to notification requirements under Subsection R317-8-4.1(15).

3. The alteration or addition results in a significant change in the Permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. The Permittee shall give notice to the Director of any planned changes at least 30 days prior to their implementation.

B. Anticipated Noncompliance. The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity, which may result in noncompliance with permit requirements.

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

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

E. Duty to Provide Information. The Permittee shall furnish to the Director, within a reasonable time, any information which the Director 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 Director, upon request, copies of records required to be kept by this permit.

F. Other Information. When the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Director, it shall promptly submit such facts or information.

G. Signatory Requirements. All applications, reports or information submitted to the Director shall be signed and certified.

1. All permit applications shall be signed by either a principal executive officer or ranking elected official. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described above and submitted to the Director, and,

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. A duly authorized representative may thus be either a named individual or any individual occupying a named position.

(1) For a corporation. By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
   (a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who perfoms similar policy- or decision-making functions for the corporation, or
   (b) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) For a partnership or sole proprietorship. By a general partner or the proprietor, respectively; or

(3) For a municipality, State, Federal, or other public agency. By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
   (a) The chief executive officer of the agency, or
   (b) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

2. All reports required by the permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person.

3. Changes to authorization. If an authorization under *paragraph VII.G.2* 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 VII.G.2.* must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

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

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

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

H. Penalties for Falsification of Reports. The *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 $10,000.00 per violation, or by imprisonment for not more than six months per violation, or by both.

I. Availability of Reports. Except for data determined to be confidential under *UAC R317-8-3.2*, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the office of Director. As required by the *Act*, permit applications, permits and effluent data shall not be considered confidential.

J. Oil and Hazardous Substance Liability. Nothing in this permit shall be construed to preclude the Permittee of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject under the *Act*.

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

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

M. Transfers. This permit may be automatically transferred to a new Permittee if:

1. The current Permittee notifies the Director at least 20 days in advance of the proposed transfer date;

2. The notice includes a written agreement between the existing and new Permittee's containing a specific date for transfer of permit responsibility, coverage, and liability between them; and,

3. The Director does not notify the existing Permittee and the proposed new Permittee of his or her intent to modify, or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph *2* above.

N. State or Federal 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 law or regulation under authority preserved by Sections 19-5-117 and 510 of the Clean Water Act or any applicable Federal or State transportation regulations, such as but not limited to the Department of Transportation regulations.

O. Water Quality - Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations and compliance schedule, if necessary, if one or more of the following events occurs:

1. Water Quality Standards for the receiving water(s) to which the Permittee discharges are modified in such a manner as to require different effluent limits than contained in this permit.

2. A final wasteload allocation is developed and approved by the State and/or EPA for incorporation in this permit.

3. Revisions to the current CWA § 208 areawide treatment management plans or promulgations/revisions to TMDLs (40 CFR 130.7) approved by the EPA and adopted by DWQ which calls for different effluent limitations than contained in this permit.

P. Biosolids – Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include the appropriate biosolids limitations (and compliance schedule, if necessary), management practices, other appropriate requirements to protect public health and the environment, or if there have been substantial changes (or such changes are planned) in biosolids use or disposal practices; applicable management practices or numerical limitations for pollutants in biosolids have been promulgated which are more stringent than the requirements in this permit; and/or it has been determined that the Permittees biosolids use or land application practices do not comply with existing applicable state of federal regulations.

Q. Toxicity Limitation - Reopener Provision.

This permit may be reopened and modified (following proper administrative procedures) to include WET testing, a WET limitation, a compliance schedule, a compliance date, additional or modified numerical limitations, or any other conditions related to the control of toxicants if toxicity is detected during the life of this permit.

VIII. DEFINITIONS

A. Wastewater.

1. The "7-day (and weekly) average", other than for *E. coli* bacteria, fecal coliform bacteria, and total coliform bacteria, is the arithmetic average of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. Geometric means shall be calculated for *E. coli* bacteria, fecal coliform bacteria, and total coliform bacteria. The 7-day and weekly averages are applicable only to those effluent characteristics for which there are 7-day average effluent limitations. The calendar week, which begins on Sunday and ends on Saturday, shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for that calendar week shall be included in the data for the month that contains Saturday.

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

3. "Average annual discharge limit" means maximum allowable average of monthly discharges over a calendar year, calculated as the sum of all monthly discharges measured during a calendar year divided by the number of monthly discharges measured during the year. The timeframe is defined as from January 1st to December 31st.

4. "Act," means the *Utah Water Quality Act*.

5. "Acute toxicity" occurs when 50 percent or more mortality is observed for either test species at any effluent concentration (lethal concentration or "LC_{50}").

6. "Annual Loading Cap" is the highest allowable phosphorus loading discharged over a calendar year, calculated as the sum of all the monthly loading discharges measured during a calendar year divided by the number of monthly discharges measured during that year.

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

8. "Chronic toxicity" occurs when the IC_{25}< XX% effluent. The XX% effluent is the concentration of the effluent in the receiving water, at the end of the mixing zone expressed as per cent effluent.

9. "IC_{25}" is the concentration of toxicant (given in % effluent) that would cause a 25% reduction in mean young per female, or a 25% reduction in overall growth for the test population.

10. "Composite Samples" shall be flow proportioned. The composite sample shall, as a minimum, contain at least four (4) samples collected over the compositing period. Unless otherwise specified, the time between the collection of the first sample and the last sample

shall not be less than six (6) hours nor more than 24 hours. Acceptable methods for preparation of composite samples are as follows:

a. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;

b. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample, the flow rate at the time the sample was collected may be used;

c. Constant sample volume, time interval between samples proportional to flow (i.e., sample taken every "X" gallons of flow); and,

d. Continuous sample volume, with sample collection rate proportional to flow rate.

11. "CWA" means *The Federal Water Pollution Control Act*, as amended, by *The Clean Water Act of 1987*.

12. "Daily Maximum" (Daily Max.) is the maximum value allowable in any single sample or instantaneous measurement.

13. "EPA," means the United States Environmental Protection Agency.

14. "Director," means Director of the Division of Water Quality.

15. A "grab" sample, for monitoring requirements, is defined as a single "dip and take" sample collected at a representative point in the discharge stream.

16. An "instantaneous" measurement, for monitoring requirements, is defined as a single reading, observation, or measurement.

17. "Severe Property Damage," means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

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

Official Draft Public Notice Version **May 20, 2024**
The findings, determinations, and assertions contained in this document are not final and subject to change following the public comment period.

FACT SHEET AND STATEMENT OF BASIS
GRANTSVILLE CITY WATER RECLAMATION FACILITY
RENEWAL PERMIT: DISCHARGE
UPDES PERMIT NUMBER: UT0021130
MAJOR MUNICIPAL

FACILITY CONTACTS

Operator Name:	Grantsville City Corporation
Contact:	James Waltz
Position:	Public Works Director
Phone Number:	(435) 884-3411

Person Name:	Marcus Seat
Position:	Field Operations Lead
Phone Number:	(435) 884-3411

Permittee Name:	Grantsville City Corporation
Facility Name:	Grantsville City Water Reclamation Facility
Mailing and Facility Address:	Grantsville City Public Works 336 West Main Street Grantsville, UT 84029
Telephone:	City Hall- (435) 884-3411
Actual Address:	630 North Race Street

DESCRIPTION OF FACILITY

The Grantsville City Water Reclamation Facility (Grantsville), which consists of wastewater lagoons, was constructed in 1972. Grantsville services the City of Grantsville with a service population of approximately 5,000. The peak design flow is 1.9 MGD. The facility's discharge location at Outfall 001 is located at latitude 40º37'15" and longitude 112º26'50" with STORET number 496024.

The facility consists of a headwork's control building containing control equipment as well as a Rotomat rag compactor, headwork's structure with two influent channels and one bar screen followed by a 15-inch Palmer Bowlus flume and Drexel Brook ultrasonic flow meter. The facility is equipped with a diesel-powered generator that will operate as a backup power source.

Grantsville consists of 8 lagoons: one (1) primary, one (1) secondary, two (2) tertiary, and four (4) empty lagoons to allow for overflow. The primary cell utilizes an Advanced Treatment Lagoon Activated Sludge system utilizing a Decant BioBalanced Reactor technology to manage biosolids (ATLAS™ - DBBR). The primary lagoon has eight (8) aerators. The secondary lagoon has five (5) aerators, and the first tertiary cell has three (3) aerators. The cells are contained on 102.2 acres.

Following the lagoon cells is the disinfection building. The disinfection building contains the influent and effluent flow recorders, and an ultraviolet (UV) light channel. The UV channel is 21 feet long, 20 inches wide, and contains two banks of UV lights in series, with 40 lights per bank. The building also houses the facility laboratory. An effluent 15-inch Palmer Bowlus flume and Drexel Brook flow sensor follow the disinfection building.

SUMMARY OF CHANGES FROM PREVIOUS PERMIT

Technology-Based Phosphorus Effluent Limit (TBPEL) Rule:
The Division of Water Quality (DWQ) adopted Utah Administrative Code (UAC) R317-1-3.3, TBPEL Rule on December 16, 2014. No TBPEL was instituted for discharging treatment lagoons. Instead, each discharging lagoon was evaluated to determine the current annual average total phosphorus load measured in pounds per year based on monthly average flow rates and concentrations. On July 1, 2018, an annual phosphorus loading cap of 2839 lbs/year was added to the permit. The Permittee has been reporting the loading on an annual basis. They have exceeded the loading cap in 2022 and 2023. They have started the process of updating their facilities management plan and determining what improvements will be required to return to compliance with the limit and rule.

Annual Total Phosphorus Loading, lb/yr			
Year	Limit	Loading	Exceedance
2019	2839	2298	No
2020	2839	1633	No
2021	2839	2725	No
2022	2839	3897	Yes
2023	2839	7351	Yes

The Wasteload Analysis (WLA) developed for this permit renewal produced more restrictive water quality based effluent limits (WQBEL) for ammonia. These limits will be added to the permit. The changes are listed in the table below.

Effluent Concentration and Mass Loading Limits						
	Previous Limit			New Limits		
Total Ammonia (as N)	Average (mg/L)	Maximum (mg/L)	Loading Cap (lbs/Month)	Average (mg/L)	Maximum (mg/L)	Loading Cap (lbs/Month)
Summer (Jul-Sep)	-	3.2	412.8	-	2.3	337.8
Fall (Oct-Dec)	2.5	3.2	-	2.2	2.3	-
Winter (Jan-Mar)	2.9	3.2	-	2.3	2.3	-
Spring (Apr-Jun)	1.7	3.2	-	1.5	2.3	-

The changes required to comply with the phosphorus loading cap, and lower ammonia limits will take time to implement. They may require the construction of a completely new treatment facility, which may change the status of the plant from lagoon to a mechanical plant and change the phosphorus limit from a loading cap to an annual average concentration limit of 1 mg/L.

Compliance Schedule:
The Permittee began planning for future phosphorus compliance back in 2021 and developed a rough schedule for completion. Here is the estimated schedule for the completion of the work.

2022:	Finalize study and recommendations.
2022–2023:	Explore funding options and secure capital via city funds, bonding, grants, loans, and user rate adjustments. Funding should include a formal Impact Fee Facilities Plan (IFFP). Decision on whether or not to relocate the WWTP site should be finalized prior to commencement of detailed design work.
2023:	February Sewer Revenue Bond Closing.
2023:	Conduct formal equipment selection process for major process equipment including screens, grit removal, blowers, diffusers, mixers, clarifier mechanisms, UV disinfection equipment, and sludge dewatering/polymer systems.
2023-2024:	Complete detailed design of project.
2024:	Conduct bidding process to select installation contractor.
2025-2027:	Complete construction, startup, and commissioning of new facility.
2026-2028:	Decommission lagoon treatment process; dry and remove sludge from ponds; convert to reuse water storage if desired.

This will be adapted into a Compliance Schedule to hold off the effective date of the new lower limits in the permit.

Compliance Schedule for Ammonia and Phosphorus	
Date	Milestone
February 1, 2025	Submit Project Compliance Report.
February 1, 2026	Submit Project Compliance Report.
February 1, 2027	Submit Project Compliance Report. Deadline to request an extension to the Compliance Schedule and compliance dates. Deadline to submit Permit Application to modify permit and incorporate final design and processes into permit.
January 1, 2028	Final Effluent limitations go into effect.
February 1, 2028	Submit Project Compliance Report.

The annual Project Compliance Report mentioned in the above table will contain, at the minimum, the below items. The final Compliance Report will not contain item 2.:

1. An update of the work conducted during the previous year to include major milestones completed and delays encountered.
2. A rough schedule for the upcoming year, including major milestones to be reached and the biggest anticipated potential delays.
3. Influent and effluent monitoring data for the nutrient and flow summary of effluent monitoring.

Metals:
The Permittee has been reporting effluent monitoring results for beryllium, antimony, phenols, and thallium since 1999. The results for beryllium, phenols, and thallium have been below the MRL (no detect). There have not been any WQBEL for beryllium, antimony, and thallium, and there is no

indication that the Permittee would have any industrial contributors that would elevate those pollutants of concern in the effluent. If the Reasonable Potential (RP) model was run on these parameters the result would be "Outcome B: No limitation or routine monitoring requirements are in the permit". As a result of this, the reporting for beryllium, antimony, phenols, and thallium will be removed.

Storm Water:
Previously storm water discharge requirements and coverage were combined in this individual permit. These have been separated to provide consistency among permittees, electronic reporting for storm water discharge monitoring reports, and increase flexibility to changing site conditions.

Total Dissolved Solids (TDS)
TDS monitoring has been added to this permit.

DISCHARGE

DESCRIPTION OF DISCHARGE

Grantsville has been reporting self-monitoring results on Discharge Monitoring Reports (DMRs) on a monthly basis.

Outfall	Description of Discharge Point
001	Located at latitude 40°37'15" and longitude 112°26'50". The discharge is located north of the disinfection building, in the NW ¼ section 29, T2S R5W, via a constructed ditch that travels approximately 150 yards to the north, before entering Blue Lakes.

RECEIVING WATERS AND STREAM CLASSIFICATION

When a discharge does occur, it is pumped into a drainage ditch, thence to Blue Lakes, and thence to an irrigation ditch, which is a Class 2B, 3D and 4 according to UAC R317-2-13:

Class 2B -- Protected for infrequent primary contact recreation. Also protected for secondary contact recreation where there is a low likelihood of ingestion of water or a low degree of bodily contact with the water. Examples include, but are not limited to, wading, hunting, and fishing.

Class 3D -- Protected for waterfowl, shore birds and other water-oriented wildlife not included in Classes 3A, 3B, or 3C, including the necessary aquatic organisms in their food chain.

Class 4 -- Protected for agricultural uses including irrigation of crops and stock watering.

TOTAL MAXIMUM DAILY LOAD (TMDL) REQUIREMENTS

According to DWQ's 2024 Integrated Report and 303(d) Assessment, North Willow Creek (North Willow Creek and tributaries, Tooele County, UT16020304-003_00) needs more data for any future assessments.

BASIS FOR EFFLUENT LIMITATIONS

Limitations on total suspended solids (TSS), biochemical oxygen demand (BOD5), *E. coli*, pH, and percent removal for BOD5 and TSS are based on current Utah Secondary Treatment Standards, UAC R317-1-3.2. Attached is a WLA for this discharge into the unnamed irrigation ditch. Dissolved oxygen (DO), flow, and future ammonia limits are based on the WLA. Current and future phosphorus limits are

based on TBPEL. It has been determined that this discharge will not cause a violation of water quality standards. An Antidegradation Level II review is not required since the Level I review shows that water quality impacts are minimal. The permittee is expected to be able to comply with these limitations.

Reasonable Potential Analysis
Since January 1, 2016, DWQ has conducted RP analysis on all new and renewal applications received after that date. RP for this permit renewal was conducted following DWQ's September 10, 2015 Reasonable Potential Analysis Guidance (RP Guidance). There are four outcomes defined in the RP Guidance: Outcome A, B, C, or D. These Outcomes provide a frame work for what routine monitoring or effluent limitations are required

A quantitative RP screening was conducted on cyanide and mercury. Further review of these metals determined that the monitoring requirements from the previous permit will be retained for this renewal. A copy of the RP analysis is included at the end of this Fact Sheet.

The permit limitations are:

Parameter	Effluent Limitations [1]				
	Maximum Monthly Avg	Maximum Weekly Avg	Yearly Average	Daily Minimum	Daily Maximum
Total Flow, MGD	1.5	-	-	-	-
BOD_5, mg/L	25	35	-	-	-
BOD_5 Min. % Removal	85	-	-	-	
TSS, mg/L	25	35	-	-	-
TSS Min. % Removal	85	-	-	-	-
Dissolved Oxygen, mg/L	-	-	-	4	-
E. coli, No./100mL	126	158	-	-	-
pH, Standard Units	-	-	-	6.5	9
1. Definitions, Part VIII, for definition of terms.					

Effluent Concentration and Mass Loading Limits [1]					
Parameter	Maximum Monthly Avg (mg/L)	Maximum Weekly Avg (mg/L)	Loading cap (lbs./Year)	Loading cap (lbs./Month)	Daily Maximum (mg/L)
Interim Limits [2]					
Total Ammonia (as N)					
Summer (Jul-Sep)	-	-	-	412.8	3.2
Fall (Oct-Dec)	2.5	-	-	-	3.2
Winter (Jan-Mar)	2.9	-	-	-	3.2
Spring (Apr-Jun)	1.7	-	-	-	3.2
Total Phosphorous	-	-	2,839	-	-
Final Limits [3]					
Parameter	Maximum Monthly Avg (mg/L)	Maximum Weekly Avg (mg/L)	Annual Average (mg/L)	Loading cap (lbs./Month)	Daily Maximum (mg/L)

Effluent Concentration and Mass Loading Limits [1]					
Total Ammonia (as N)					
Summer (Jul-Sep)	-	-	-	337.8	2.3
Fall (Oct-Dec)	2.2	-	-	-	2.3
Winter (Jan-Mar)	2.3	-	-	-	2.3
Spring (Apr-Jun)	1.5	-	-	-	2.3
Total Phosphorous	-	-	1	-	-
1. Definitions, Part VIII, for definition of terms.					
2. Interim limits are in effect until December 31, 2027.					
3. Final limits go into effect on January 1, 2028.					

SELF-MONITORING AND REPORTING REQUIREMENTS

The following self-monitoring requirements are the same as in the previous permit, with the addition of TDS. The permit will require reports to be submitted monthly and annually, as applicable, on Discharge Monitoring Report (DMR) forms due 28 days after the end of the monitoring period. Effective January 1, 2017, monitoring results must be submitted using NetDMR unless the permittee has successfully petitioned for an exception. Lab sheets for biomonitoring must be attached to the biomonitoring DMR. Lab sheets for metals and toxic organics must be attached to the DMRs.

Self-Monitoring and Reporting Requirements[1]			
Parameter	Frequency	Sample Type	Units
Total Flow [4], [5]	Continuous	Recorder	MGD
BOD_5, Influent [6]	Weekly	Composite	mg/L
Effluent	Weekly	Composite	mg/L
TSS, Influent[4]	Weekly	Composite	mg/L
Effluent	Weekly	Composite	mg/L
E. coli	Weekly	Grab	No./100mL
pH	Weekly	Grab	SU
Total Ammonia (as N)	Weekly	Grab	mg/L
DO	Weekly	Grab	mg/L
TDS	Monthly	Grab	mg/L
Metals[7], Influent	2 X Yearly	Composite/Grab	mg/L
Effluent	2 X Yearly	Composite/Grab	mg/L
Organic Toxics[8], Influent	Odd Calendar Years	Grab	
Effluent	Odd Calendar Years	Grab	mg/L
TBPEL Rule Monitoring[9]			
Total Ammonia (as N)	Monthly	Composite	mg/L
Orthophosphate, (as P)			
Effluent	Monthly	Composite	mg/L
Phosphorus, Total			
Influent	Monthly	Composite	mg/L
Effluent	Monthly	Composite	mg/L
Total Kjeldahl Nitrogen, TKN (as N)			
Influent	Monthly	Composite	mg/L
Effluent	Monthly	Composite	mg/L
Nitrate, NO3	Monthly	Composite	mg/L
Nitrite, NO2	Monthly	Composite	mg/L

Self-Monitoring and Reporting Requirements[1]			
Parameter	Frequency	Sample Type	Units
1. Definitions, Part VIII, for definition of terms.			
4. Flow measurements of influent/effluent volume shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained.			
5. If the rate of discharge is controlled, the rate and duration of discharge shall be reported.			
6. In addition to monitoring the final discharge, influent samples shall be taken and analyzed for this constituent at the same frequency as required for this constituent in the discharge.			
7. Testing for metals listed in the table below. The testing is conducted to support future RP analysis. Grantsville will be required to have the effluent analyzed for mercury using a method that is sensitive enough to demonstrate a presence or absence of mercury in the effluent, such as EPA Method 245.7 or 1631.			
8. A list of the organics to be tested can be found in 40CFR122 appendix D table II.			
9. These reflect changes required with the adoption of UAC R317-1-3.3, Technology-based Phosphorus Effluent Limits rule.			

Metals to be Monitored for RP
Total Arsenic
Total Cadmium
Total Chromium
Total Copper
Total Cyanide
Total Lead
Total Mercury
Total Molybdenum
Total Nickel
Total Selenium
Total Silver
Total Zinc

BIOSOLIDS

The State of Utah has adopted the 40 CFR 503 federal regulations for the disposal of sewage sludge (biosolids) by reference. However, since this facility is a lagoon, there is not any regular sludge production. Therefore 40 CFR 503 does not apply at this time. In the future, if the sludge needs to be removed from the lagoons and is disposed in some way, the Division of Water Quality must be contacted prior to the removal of the sludge to ensure that all applicable state and federal regulations are met

STORM WATER

Permit coverage under the Multi Sector General Permit (MSGP) for Storm Water Discharges from Industrial Activities is required based on the Standard Industrial Classification (SIC) code for the facility and the types of industrial activities occurring. If the facility is not already covered, it has 30 days from when this permit is issued to submit the appropriate Notice of Intent (NOI) for the MSGP or exclusion documentation. Previously storm water discharge requirements and coverage were combined in this

individual permit. These have been separated to provide consistency among permittees, electronic reporting for storm water discharge monitoring reports, and increase flexibility to changing site conditions.

Information on storm water permit requirements can be found at http://stormwater.utah.gov

PRETREATMENT REQUIREMENTS

Grantsville does not have an Approved POTW Pretreatment Program (Program). This is due to the flow through the plant being less than five (5) MGD and no known Significant Industrial Users.

Grantsville does not need to develop a Program; however, information regarding Industrial Users discharging to the Publicly Owned Treatment Works (POTW) must be submitted as stated in Part II of the permit. This information will assist in determining the needs of DWQ to assist Grantsville with implementing the Pretreatment Standards and Requirements. If an Industrial User begins to discharge or an existing Industrial User changes its discharge, Grantsville must submit the information stated in Part II within sixty days of the permit renewal. Also, updates must be submitted within 60 days of any changes occurring with an existing Industrial User or a new Industrial User that begins discharging to the POTW.

Any wastewater discharged to the POTW from an Industrial User is subject to Federal, State and local regulations. Pursuant to Section 307 of the Clean Water Act, Grantsville and the Industrial Users discharging to the POTW shall comply with all applicable Federal General Pretreatment Regulations promulgated, found in 40 CFR 403, and the State Pretreatment Requirements found in UAC R317-8-8.

It is required that any Local Limits be submitted to DWQ for review. If Local Limits are developed, it is required that Grantsville perform an annual evaluation of the need to revise or develop technically based Local Limits for pollutants of concern to implement the general and specific prohibitions 40 CFR, Part 403.5(a) and Part 403.5(b). This evaluation may indicate that present Local Limits are sufficiently protective, need to be revised or should be developed.

BIOMONITORING REQUIREMENTS

A nationwide effort to control toxic discharges where effluent toxicity is an existing or potential concern is regulated in accordance with the Utah Pollutant Discharge Elimination System Permit and Enforcement Guidance Document for Whole Effluent Toxicity Control (biomonitoring), dated February 2018. Authority to require effluent biomonitoring is provided in Permit Conditions, UAC R317-8-4.2, Permit Provisions, UAC R317-8-5.3 and Water Quality Standards, UAC R317-2-5 and R317 -2-7.2.

The permittee is a minor municipal facility that will be discharging an infrequent amount of effluent, in which toxicity is neither an existing concern, nor likely to be present. Also, the receiving irrigation ditch is regularly dry; therefore there is not any available data to conclude that the irrigation ditch is impaired. Based on these considerations, and the absence of receiving stream water quality monitoring data, there is no reasonable potential for toxicity in the permittee's discharge (per State of Utah Permitting and Enforcement Guidance Document for WET Control). As such, there will be no numerical WET limitations or WET monitoring requirements in this permit. However, the permit will contain a toxicity limitation re-opener provision that allows for modification of the permit should additional information indicate the presence of toxicity in the discharge.

PERMIT DURATION

It is recommended that this permit be effective for a duration of five (5) years.

Drafted and Reviewed by
Daniel Griffin, Discharge Permit Writer, Reasonable Potential Analysis
Jennifer Robinson, Pretreatment
Lonnie Shull, Biomonitoring
Suzan Tahir, Wasteload Analysis
Utah Division of Water Quality, (801) 536-4300

PUBLIC NOTICE

Began: Month Day, Year
Ended: Month Day, Year

Comments will be received at: 195 North 1950 West
PO Box 144870
Salt Lake City, UT 84114-4870

The Public Noticed of the draft permit was published in the Division of Water Quality Public Notice Webpage.

During the public comment period provided under R317-8-6.5, any interested person may submit written comments on the draft permit and may request a public hearing, if no hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. All comments will be considered in making the final decision and shall be answered as provided in R317-8-6.12.

During finalization of the Permit certain dates, spelling edits and minor language corrections were completed. Due to the nature of these changes they were not considered Major and the permit is not required to be re Public Noticed.

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ATTACHMENT 1

Industrial Waste Survey

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Industrial Pretreatment Wastewater Survey

Do you periodically experience any of the following treatment works problems:

foam, floaties or unusual colors
plugged collection lines caused by grease, sand, flour, etc.
discharging excessive suspended solids, even in the winter
smells unusually bad
waste treatment facility doesn't seem to be treating the waste right

Perhaps the solution to a problem like one of these may lie in investigating the types and amounts of wastewater entering the sewer system from industrial users.

An industrial user (IU) is defined as a non-domestic user discharging to the waste treatment facility which meets any of the following criteria:

1. **has a lot of process wastewater (5% of the flow at the waste treatment facility or more than 25,000 gallons per work day.)**

   Examples: Food processor, dairy, slaughterhouse, industrial laundry.

2. **is subject to Federal Categorical Pretreatment Standards**;

   Examples: metal plating, cleaning or coating of metals, blueing of metals, aluminum extruding, circuit board manufacturing, tanning animal skins, pesticide formulating or packaging, and pharmaceutical manufacturing or packaging,

3. **is a concern to the POTW.**

   Examples: septage hauler, restaurant and food service, car wash, hospital, photo lab, carpet cleaner, commercial laundry.

All users of the water treatment facility are **prohibited** from making the following types of discharges:

1. A discharge which creates a fire or explosion hazard in the collection system.

2. A discharge which creates toxic gases, vapor or fumes in the collection system.

3. A discharge of solids or thick liquids which creates flow obstructions in the collection system.

4. An acidic discharge (low pH) which causes corrosive damage to the collection system.

5. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause problems in the collection system or at the waste treatment facility.

6. Waste haulers are prohibited from discharging without permission. (No midnight dumping!)

When the solution to a sewer system problem may be found by investigating the types and amounts of wastewater entering the sewer system discharged from IUs, it's appropriate to conduct an Industrial Waste Survey.

An Industrial Waste Survey consists of:

Step 1: Identify Industrial Users

Make a list of all the commercial and industrial sewer connections.

Sources for the list:

business license, building permits, water and wastewater billing, Chamber of Commerce, newspaper, telephone book, yellow pages.

Split the list into two groups:

domestic wastewater only--no further information needed
everyone else (IUs)

Step 2: Preliminary Inspection

Go visit each IU identified on the "everybody else" list.

Fill out the **Preliminary Inspection Form** during the site visit.

Step 3: Informing the State

Please fax or send a copy of the Preliminary inspection form (both sides) to:

Jennifer Robinson

Division of Water Quality
288 North 1460 West
P.O. Box 144870
Salt Lake City, UT 84114-4870

Phone: (801) 536-4383
Fax: (801) 536-4301
E-mail: jenrobinson@utah.gov

PRELIMINARY INSPECTION FORM

INSPECTION DATE ___ / ____ /

Name of Business **Person Contacted** _____
Address _____ **Phone Number** _____

_____

Description of Business _____

Principal product or service: _____

Raw Materials used: _____

_____

Production process is: [ ] Batch [ ] Continuous [ ] Both

Is production subject to seasonal variation? [ ] yes [ ] no
If yes, briefly describe seasonal production cycle.

_____

This facility generates the following types of wastes (check all that apply):

1. [ ] Domestic wastes (Restrooms, employee showers, etc.)
2. [ ] Cooling water, non-contact **3. [ ] Boiler/Tower blowdown**
4. [ ] Cooling water, contact **5. [ ] Process**
6. [ ] Equipment/Facility washdown **7. [ ] Air Pollution Control Unit**
8. [ ] Storm water runoff to sewer **9. [ ] Other describe**

Wastes are discharged to (check all that apply):

[ ] Sanitary sewer **[ ] Storm sewer**
[ ] Surface water **[ ] Ground water**
[ ] Waste haulers **[ ] Evaporation**
[ ] Other (describe)
Name of waste hauler(s), if used

_____

Is a grease trap installed? Yes No
Is it operational? Yes No

Does the business discharge a lot of process wastewater?

- **More than 5% of the flow to the waste treatment facility? Yes No**
- **More than 25,000 gallons per work day? Yes No**

Does the business do any of the following:

[ ] Adhesives
[ ] Aluminum Forming
[ ] Battery Manufacturing
[ ] Copper Forming
[ ] Electric & Electronic Components
[ ] Explosives Manufacturing
[ ] Foundries
[ ] Inorganic Chemicals Mfg. or Packaging
[ ] Industrial Porcelain Ceramic Manufacturing
[ ] Iron & Steel
[ ] Metal Finishing, Coating or Cleaning
[ ] Mining
[ ] Nonferrous Metals Manufacturing
[ ] Organic Chemicals Manufacturing or Packaging
[ ] Paint & Ink Manufacturing
[ ] Pesticides Formulating or Packaging
[ ] Petroleum Refining
[ ] Pharmaceuticals Manufacturing or Packaging
[ ] Plastics Manufacturing
[ ] Rubber Manufacturing
[ ] Soaps & Detergents Manufacturing
[ ] Steam Electric Generation
[ ] Tanning Animal Skins
[ ] Textile Mills

[ ] Car Wash
[ ] Carpet Cleaner
[ ] Dairy
[ ] Food Processor
[ ] Hospital
[ ] Laundries
[ ] Photo Lab
[ ] Restaurant & Food Service
[ ] Septage Hauler
[ ] Slaughter House

Are any process changes or expansions planned during the next three years? Yes No
If yes, attach a separate sheet to this form describing the nature of planned changes or expansions.

_____
Inspector

_____
Waste Treatment Facility

Please send a copy of the preliminary inspection form (both sides) to:

Jennifer Robinson
Division of Water Quality
P. O. Box 144870
Salt Lake City, Utah 84114-4870

Phone: (801) 536-4383
Fax: (801) 536-4301
E-Mail: jenrobinson@utah.gov

	Industrial User	Jurisdiction	SIC Codes	Categorical Standard Number	Total Average Process Flow (gpd)	Total Average Facility Flow (gpd)	Facility Description
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							

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ATTACHMENT 2

Effluent Monitoring Data

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Effluent Monitoring Data.

	Flow		BOD5		TSS		DO	Ammonia					E. coli		pH	
	MGD		mg/L	%	mg/L	%	mg/L	mg/L				lb/mo	#/100mL		SU	
	Average	Max		Removal		Removal	Min	Max	Average			Max	Acute	Chronic	Min	Max
Jan-21	0	0														
Feb-21	0.43	0.69	4.8	97	3.5	98	4.5	0.7	--	--	0.7	--	0.5	0.5	7.6	8.4
Mar-21	0.25	0.51	11.7	93	11.3	96	7.8	0.1	--	--	0.1	--	0.0667	0.0667	8.9	9.0
Apr-21	0.08	0.39	5	98	5	98	4.3	0.5	0.5	--	--	--	0.5	0.5	8.9	8.9
May-21	0	0														
Jun-21	0	0														
Jul-21	0	0														
Aug-21	0	0														
Sep-21	0	0														
Oct-21	0	0														
Nov-21	0.75	0.94	3	99	2	99	4.0	0.8	--	0.44	--	--	1	1	7.2	7.5
Dec-21	0.66	1.01	2.8	97	1	99	4.5	1	--	0.475	--	--	63	20	7.3	7.9
Jan-22	0.34	0.76	3.3	98	2	99	4.1	1.5	--	--	1.4	--	5.5	5.5	7.6	7.7
Feb-22	0.41	0.74	4.9	97	2.5	99	4.3	1	--	--	1.0	--	1.25	1.25	7.4	7.7
Mar-22	0.36	0.81	4.5	98	2	99	5.2	0.8	--	--	0.6	--	0.5	0.5	7.8	8.1
Apr-22	0.23	0.61	2.5	98	2	99	4.4	1.1	1.1	--	--	--	1	0.75	7.9	7.9
May-22	0	0														
Jun-22	0	0														
Jul-22	0	0														
Aug-22	0	0														
Sep-22	0	0														
Oct-22	0.35	0.93	3.8	97	5	98	4.5	1.3	--	1.095	--	--	0.5	0.5	7.7	8.2
Nov-22	0.76	0.87	3.5	97	8.0	97	4.1	2.75	--	1.756	--	--	0.875	4	7.2	7.7
Dec-22	0.36	0.78	2.5	97	2	99	5.0	2.07	--	1.975	--	--	3.5	3.5	7.9	8.1
Jan-23	0.83	0.96	5.6	97	7.8	96	10.4	1.33	--	--	0.9	--	0.5	0.5	8.1	8.6
Feb-23	0.87	0.94	16	94	11	98	17.8	0.32	--	--	0.2	--	0.625	0.625	8.5	8.7
Mar-23	0.71	0.89	9.8	96	8.2	95	11.4	0.31	--	--	0.1	--	0.5	0.5	8.4	8.8
Apr-23	0.73	0.76	7.3	96	7.8	95	8.0	0.6	0.433	--	--	--	0.5	0.5	8.2	8.7
May-23	0.64	0.80	7.6	97	4.3	96	5.0	4.62	3.5	--	--	--	0.5	0.5	7.3	8.5
Jun-23	0	0														
Jul-23	0	0														
Aug-23	0.16	0.63	2.5	98	2	98	5.2	2.68	--	--	--	111.55	0.5	0.5	8.2	8.2
Sep-23	0.19	0.45	5.5	97	4	97	5.8	2.92	--	--	--	84.01	0.5	0.5	7.8	7.9
Oct-23	0.31	0.56	3.4	99	2	99	5.3	1.89	--	1.605	--	--	0.5	0.5	7.6	8.0
Nov-23	0.60	0.70	2.5	99	2.4	98	6.7	0.97	--	0.588	--	--	0.5	0.5	7.5	7.7
Dec-23	0.72	0.89	2.5	99	2	99	6.5	1.84	--	1.03	--	--	2	1	7.2	7.6

	Flow	NH3 + NH2	Ortho P	TKN	Total P		Flow	NH3 + NH2	Ortho P	TKN	Total P
	MGD	mg/L	mg/L	mg/L	mg/L		MGD	mg/L	mg/L	mg/L	mg/L
Jan-21	0					Jul-22	0				
Feb-21	0.43	20.3	3.5	0.5	5.1	Aug-22	0				
Mar-21	0.25	18.2	4	1.1	4.7	Sep-22	0				
Apr-21	0.08	7.6	2.7	1.7	3.4	Oct-22	0.35	0.1	6.5	4.2	7.1
May-21	0					Nov-22	0.76	3.81	5.7	3.8	6.25
Jun-21	0					Dec-22	0.36	8.4	4.8	1.8	5
Jul-21	0					Jan-23	0.83	11.6	4.5	0.5	4.5
Aug-21	0					Feb-23	0.87	8.74	4.1	1.3	5
Sep-21	0					Mar-23	0.71	9.77	3.8	11.3	4.54
Oct-21	0					Apr-23	0.73	3.66	3.5	1.7	4.55
Nov-21	0.75	11.3	4.1	0.5	5.3	May-23	0.64	1	5.7	3.5	7.075
Dec-21	0.66	14	3.7	0.5	5	Jun-23	0				
Jan-22	0.34	20.8	4.2	0.5	4.4	Jul-23	0				
Feb-22	0.41	20	4.4	0.5	4.4	Aug-23	0.16	0.65	3.5	3.3	4.7
Mar-22	0.36	17.1	4.4	0.5	4.8	Sep-23	0.19	0.6	3.5	2	5.45
Apr-22	0.23	1.8	5.6	1.6	6.1	Oct-23	0.31	0.41	4.6	2.9	5.725
May-22	0					Nov-23	0.60	2.08	4.5	1.5	5.888
Jun-22	0					Dec-23	0.72	0.94	3.8	1	4.825

Metals Monitoring, mg/L												
	Ag	As	Cd	CN	Cr	Cu	Hg	Mo	Ni	Pb	Se	Zn
Jun-19	0.00025	0.0015	0.0001	0.001	0.0005	0.0047	0.0001	0.0009	0.0037	0.00025	0.0012	0.02
Dec-19	0.00025	0.0017	0.0001	0.001		0.0032	0.0001	0.0011	0.0024	0.00025	0.0006	0.02
Jun-20	0.00025	0.0011	0.0001	0.001	0.0005	0.0046	0.0001	0.0006	0.0012	0.00025	0.00025	0.05
Dec-20	0.00025	0.0016	0.0001	0.001	0.00025	0.0017	0.0001	0.0012	0.0013	0.00025	0.00025	0.02
Jun-21	0.00025	0.0009	0.0001	0.001	0.00025	0.0036	0.0001	0.0007	0.0008	0.00025	0.00025	0.04
Dec-21	0.00025	0.0014	0.0001	0.003	0.00025	0.0017	0.0001	0.001	0.001	0.00025	0.0005	0.02
Jun-22	0.00025	0.0011	0.0001	0.001	0.00025	0.0032	0.0001	0.0008	0.0009	0.00025	0.00025	0.04
Dec-22	0.00025	0.0011	0.0001	0.001	0.00025	0.002	0.0003	0.0007	0.001	0.00025	0.0005	0.005
Jun-23	0.00025	0.0017	0.0001	0.001	0.0005	0.0022	0.000075	0.0008	0.0022	0.00025	0.001	0.01
Dec-23	0.00025	0.0009	0.0001	0.001	0.0005	0.0005	0.000075	0.0006	0.0006	0.00025	0.0005	0.005

ATTACHMENT 3

Wasteload Analysis

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Utah Division of Water Quality
Statement of Basis
ADDENDUM
Wasteload Analysis and Antidegradation Level I Review

Date: **November 28, 2023**

Prepared by: **Suzan Tahir**
Standards and Technical Services

Facility: **Grantsville Wastewater Treatment Facility**
UPDES No. UT0021130

Receiving water: **Blue Lakes (2B, 3D, 4)**

This addendum summarizes the wasteload analysis that was performed to determine water quality based effluent limits (WQBEL) for this discharge. Wasteload analyses are performed to determine point source effluent limitations necessary to maintain designated beneficial uses by evaluating projected effects of discharge concentrations on in-stream water quality. The wasteload analysis also takes into account downstream designated uses (UAC R317-2-8). Projected concentrations are compared to numeric water quality standards to determine acceptability. The numeric criteria in this wasteload analysis may be modified by narrative criteria and other conditions determined by staff of the Division of Water Quality.

Discharge

Outfall 001: Drainage Ditch → Blue Lakes → Irrigation Canal

The maximum daily design discharge is 2.25 MGD and the maximum monthly design discharge is 1.5 MGD for the facility.

Receiving Water

The receiving water for Outfall 001 is an unnamed drainage ditch that is tributary to Blue Lakes, which outlets to an irrigation canal.

As per UAC R317-2-13.10, the receiving ditch is classed 2B, 3E. As per R317-2-13.2(v), the designated beneficial uses of Blue Lake are 2B, 3D, 4.

- *Class 2B - Protected for infrequent primary contact recreation. Also protected for secondary contact recreation where there is a low likelihood of ingestion of water or a low degree of bodily contact with the water. Examples include, but are not limited to, wading, hunting, and fishing.*

- *Class 3D - Protected for waterfowl, shore birds and other water-oriented wildlife not included in Classes 3A, 3B, or 3C, including the necessary aquatic organisms in their food chain.*

- *Class 4 - Protected for agricultural uses including irrigation of crops and stock watering.*

Flow:

Typically, the critical flow for the wasteload analysis is considered the lowest lake elevation averaged over seven consecutive days with a ten-year return frequency (7Q10). No stage records were found for Blue Lakes and no water was assumed present during critical conditions

Parameters of Concern

The potential parameters of concern identified for the discharge/receiving water were total suspended solids (TSS), dissolved oxygen (DO), BOD_5, total ammonia (TAN), total phosphorus (TP), E. coli, and pH as determined in consultation with the UPDES Permit Writer. Addition parameters of concern may become apparent as a result of reasonable potential analysis, technology-based standards, or other factors as determined by the UPDES Permit Writer.

TMDL

According to DWQ's 2022 Integrated Report and 303(d) Assessment, there is no defined assessment unit and more data is needed for any future assessments.

Protection of Downstream Uses

Per UAC R317-2-8, *all actions to control waste discharges under these rules shall be modified as necessary to protect downstream designated uses*. For this discharge, 3B numeric aquatic life use criteria apply to the immediate receiving water (Blue Lake).

Mixing Zone

The maximum allowable mixing zone is 15 minutes of travel time for acute conditions, not to exceed 50% of stream width, and 2,500 feet for chronic conditions, per UAC R317-2-5. Water quality standards must be met at the end of the mixing zone. Due to the lack of dilution in Blue Lakes during critical conditions, no mixing zone is allowed.

WET Limits

The percent of effluent in the receiving water in a fully mixed condition, and acute and chronic dilution in a not fully mixed condition are calculated in the WLA in order to generate WET limits. The LC_{50} (lethal concentration, 50%) percent effluent for acute toxicity and the IC_{25} (inhibition concentration, 25%) percent effluent for chronic toxicity, as determined by the WET test, needs to be below the WET limits, as determined by the WLA. The WET limit for LC_{50} is typically 100% effluent and does not need to be determined by the WLA.

Table 1: WET Limits for IC_{25}

Season	Percent Effluent	Dilution Ratio
Annual	100%	0

Effluent Limits

Effluent limits were determined using a mass balance mixing analysis (UDWQ 2012). Due to the lack of dilution from the receiving water during critical conditions, the WQBELs were set at the water quality criteria. The mass balance analysis is summarized in Appendix A.

The toxicity of some metals is dependent on the hardness of the water. Due to the lack of sampling data, a hardness of 300 mg/L as $CaCO_3$ was assumed.

The water quality criteria for chronic ammonia toxicity is dependent on temperature and pH, and for acute ammonia toxicity is dependent on pH. The water quality standards for ammonia are summarized in Appendix B.

Due to the lack of monitoring data, it was not possible to assess the effects of TP, TN, DO and BOD_5 in the effluent on the DO in the downstream receiving waters; therefore, it is presumed that secondary standards for BOD_5, water quality criteria for DO, and technology-based limits for TP are sufficiently protective of the receiving water.

Models and supporting documentation are available for review upon request.

Antidegradation Level I Review

The objective of the Level I ADR is to ensure the protection of existing uses, defined as the beneficial uses attained in the receiving water on or after November 28, 1975. No evidence is known that the existing uses deviate from the designated beneficial uses for the receiving water. Therefore, the beneficial uses will be protected if the discharge remains below the WQBELs presented in this wasteload.

A Level II Antidegradation Review (ADR) is not required for this discharge since the pollutant concentration and load is not increasing under this permit renewal.

Documents:

WLA Document : *Grantsville_WLA_2023.docx*
Wasteload Analysis: *Grantsville_WLA_2023.xlsm*

References:

Utah Division of Water Quality. 2021. *Utah Wasteload Analysis Procedures Version 2.0*.

Utah Division of Water Quality. 2022. *Final 2022 Integrated Report on Water Quality*

WASTELOAD ANALYSIS [WLA] Date: 11/30/2023

Appendix A: Mass Balance Mixing Analysis for Conservative Constituents

Discharging Facility:	Grantsville Lagoons		
UPDES No:	UT-0021130		
Permit Flow [MGD]:	2.25	Annual	Max. Daily
	1.50	Annual	Max. Monthly
Receiving Water:	Blue Lakes		
Stream Classification:	2B, 3D, 4		
Stream Flows [cfs]:	0.0	All Seasons	Critical Low Flow
Fully Mixed:	YES		
Acute River Width:	100%		
Chronic River Width:	100%		

Modeling Information

A mass balance mixing analysis was used to determine the effluent limits.

All model numerical inputs, intermediate calculations, outputs and graphs are available for discussion, inspection and copy at the Division of Water Quality.

Effluent Limitations

Current State water quality standards are required to be met under a variety of conditions including in-stream flows targeted to the 7-day, 10-year low flow (R317-2-9).

Other conditions used in the modeling effort reflect the environmental conditions expected at low stream flows.

Effluent Limitations for Protection of Recreation (Class 2B Waters)

Physical Parameter	Concentration Minimum	Maximum
pH	6.5	9.0
Turbidity Increase (NTU)		10.0
Bacteriological		
E. coli (30 Day Geometric Mean)		206 (#/100 mL)
E. coli (Maximum)		668 (#/100 mL)

Effluent Limitations for Protection of Aquatic Wildlife (Class 3D Waters)

Dissolved Oxygen (mg/L)	Minimum Concentration
Instantaneous	3.0
30-day Average	5.0

Inorganics

Parameter	Acute Standard (1 Hour Average) Standard
Phenol (mg/L)	0.010
Hydrogen Sulfide (Undissociated) [mg/L]	0.002

Ammonia-Total (mg/L)

	Chronic (30-day ave)			Acute (1-hour ave)		
Season	Standard	Background	Limit	Standard	Background	Limit
Summer	0.9		0.9	2.3		2.3
Fall	2.2		2.2	2.3		2.3
Winter	2.5		2.5	2.3		2.3
Spring	1.5		1.5	2.3		2.3

Metals-Total Recoverable

	Chronic (4-day ave)			Acute (1-hour ave)		
Parameter	Standard[1]	Background	Limit	Standard[1]	Background	Limit
Aluminum (µg/L)[2]	N/A		NONE	750		750
Arsenic (µg/L)	150		150	340		340
Cadmium (µg/L)	1.6		1.6	5.0		5.0
Chromium VI (µg/L)	11.0		11.0	16.0		16.0
Chromium III (µg/L)	182		182	1,401		1,401
Copper (µg/L)	22.9		22.9	37.8		37.8
Cyanide (µg/L)[2]	5.2		5.2	22.0		22.0
Iron (µg/L)				1,000		1,000
Lead (µg/L)	8.1		8.1	209		209
Mercury (µg/L)[2]	0.012		0.012	2.4		2.4
Nickel (µg/L)	132		132	1,186		1,186
Selenium (µg/L)	4.6		4.6	18.4		18.4
Silver (µg/L)				21.3		21.3
Tributylin (µg/L)[2]	0.072		0.072	0.46		0.46
Zinc (µg/L)	300		300	297		297

1: Based upon a Hardness of 300 mg/l as CaCO3

2: Where the pH is equal to or greater than 7.0 and the hardness is equal to or greater than 50 ppm as $CaC0_3$ in the receiving water after mixing, the 87 ug/L chronic criterion (expressed as total recoverable) will not apply, and aluminum will be regulated based on compliance with the 750 ug/L acute aluminum criterion (expressed as total recoverable).

Organics [Pesticides]

	Chronic (4-day ave)		Acute (1-hour ave)	
Parameter	**Standard**	**Limit**	**Standard**	**Limit**
Aldrin (µg/L)			1.5	1.5
Chlordane (µg/L)	0.0043	0.0043	1.2	1.2
DDT, DDE (µg/L)	0.001	0.001	0.55	0.55
Diazinon (µg/L)	0.17	0.17	0.17	0.17
Dieldrin (µg/L)	0.0056	0.0056	0.24	0.24
Endosulfan, a & b (µg/L)	0.056	0.056	0.11	0.11
Endrin (µg/L)	0.036	0.036	0.086	0.086
Heptachlor & H. epoxide (µg/L)	0.0038	0.0038	0.26	0.26
Lindane (µg/L)	0.08	0.08	1.0	1.0
Methoxychlor (µg/L)			0.03	0.03
Mirex (µg/L)			0.001	0.001
Nonylphenol (µg/L)	6.6	6.6	28.0	28.0
Parathion (µg/L)	0.0130	0.0130	0.066	0.066
PCB's (µg/L)	0.014	0.014		
Pentachlorophenol (µg/L)	15.0	15.0	19.0	19.0
Toxephene (µg/L)	0.0002	0.0002	0.73	0.73

Radiological

	Maximum Concentration
Parameter	**Standard**
Gross Alpha (pCi/L)	15

Effluent Limitation for Protection of Agriculture (Class 4 Waters)

	Maximum Concentration		
Parameter	**Standard**	**Background**	**Limit**
Total Dissolved Solids (mg/L)	1,200		1,200
Boron (mg/L)	0.8		0.8
Arsenic, Dissolved (µg/L)	100		100
Cadmium, Dissolved (µg/L)	10.0		10.0
Chromium, Dissolved (µg/L)	100		100
Copper, Dissolved (µg/L)	200		200
Lead, Dissolved (µg/L)	100		100
Selenium, Dissolved (µg/L)	50		50
Gross Alpha (pCi/L)	15.0		15.0

Freshwater total ammonia criteria based on Title R317-2-14 Utah Administrative Code
Acute

INPUT	Summer	Fall	Winter	Spring
pH:	8.67	8.67	8.67	8.67
Beneficial use classification:	3D	3D	3D	3D

OUTPUT				
	Total ammonia nitrogen criteria (mg N/L):			
Acute:	2.33	2.33	2.33	2.33

Freshwater total ammonia criteria based on Title R317-2-14 Utah Administrative Code
Chronic

INPUT	Summer	Fall	Winter	Spring
Temperature (deg C):	22.0	8.7	3.3	14.6
pH:	8.30	8.30	8.30	8.30
Are fish early life stages present?	No	No	No	No

OUTPUT				
Total ammonia nitrogen criteria (mg N/L):				
Chronic - Fish Early Life Stages Present:	0.94	1.52	1.52	1.51
Chronic - Fish Early Life Stages Absent:	0.94	2.22	2.47	1.51

ATTACHMENT 4

Reasonable Potential Analysis

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REASONABLE POTENTIAL ANALYSIS

Water Quality has worked to improve our reasonable potential analysis (RP) for the inclusion of limits for parameters in the permit by using an EPA provided model. As a result of the model, more parameters may be included in the renewal permit. A Copy of the Reasonable Potential Analysis Guidance (RP Guide) is available at water Quality. There are four outcomes for the RP Analysis[1]. They are;

Outcome A:	A new effluent limitation will be placed in the permit.
Outcome B:	No new effluent limitation. Routine monitoring requirements will be placed or increased from what they are in the permit,
Outcome C:	No new effluent limitation. Routine monitoring requirements maintained as they are in the permit,
Outcome D:	No limitation or routine monitoring requirements are in the permit.

Initial screening for metals values that were submitted through the discharge monitoring reports showed that a closer look at some of the metals is needed. A copy of the initial screening is included in the "Effluent Metals and RP Screening Results" table in this attachment. The initial screening check for metals showed that the full model needed to be run on cyanide and mercury.

A review of the mercury results indicates that there are only 10 samples, all Non-Detects and that the results are at the MRL for EPA Method 245.1 (0.00015 mg/L), which is higher than the WQBEL indicated in the WLA. The RP Model cannot be used confidently to determine the need for a limit with so few values. Establishing a mercury limit at this time would require a compliance schedule which would include an in-depth study of the effluent using a more sensitive analysis method, several years for planning and several more of construction. In other instances where the MRL for mercury has been above the WQBEL the chosen path has been to focus on the improvement of the analysis and then reevaluate during the next renewal.

This result indicates that the inclusion of an effluent limit for mercury is not recommended at this time, but routine monitoring requirements will be improved in the permit.
(Outcome B from Reasonable Potential Guide)

A review of the cyanide data indicated that there are only 10 samples, all are Non-Detects and that the results are at the MRL for Method SM 4500 CN-E (0.002 mg/L). The RP Model cannot be used confidently to determine the need for a limit with so few values.

This result indicates that the inclusion of an effluent limit for cyanide is not recommended at this time, and routine monitoring requirements will remain as is in the permit.
(Outcome C from Reasonable Potential Guide)

The Metals Initial Screening Table and Mercury and Cyanide Summary Table are included below attachment.

[1] See Reasonable Potential Analysis Guidance for definitions of terms

Metals Monitoring and RP Check

Metals RP Screening							
Metal	Ag	As	Cd	CN	Cr III	Cr VI	Cu
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Max	0.00025	0.0017	0.0001	0.003	0.0005	0.0005	0.0047
WQBEL for Metals							
Acute	0.021	0.34	0.005	0.022	1.401	0.016	0.0378
Chronic		0.15	0.0016	0.0052	0.182	0.011	0.0229
RP Screening Results							
Acute	No	No	No	No	No	No	No
Chronic	No	No	No	Yes	No	No	No
Metals RP Screening							
Metal	Hg	Mo	Ni	Pb	Se	Zn	
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
Max	0.00015	0.0012	0.0037	0.00025	0.0012	0.05	
WQBEL for Metals							
Acute	0.0024		1.186	0.209	0.0184	0.297	
Chronic	0.000012		0.132	0.0081	0.0046	0.3	
RP Screening Results							
Acute	No	No	No	No	No	No	
Chronic	Yes	No	No	No	No	No	

Cyanide and Mercury Monitoring Results

Metals Monitoring, mg/L		
	CN	Hg
Jun-19	ND	ND
Dec-19	ND	ND
Jun-20	ND	ND
Dec-20	ND	ND
Jun-21	ND	ND
Dec-21	ND	ND
Jun-22	ND	ND
Dec-22	ND	ND
Jun-23	ND	ND
Dec-23	ND	ND
MRL	0.002	0.00015

Grantsville has been reporting effluent monitoring results for beryllium, antimony, phenols, and thallium since 1999. The results for beryllium, phenols, and thallium have been below the MRL (no detect). There have not been any WQBEL for beryllium, antimony, and thallium, and there is no indication that Grantsville would have any industrial contributors that would elevate those pollutants of concern in the effluent. If the RP model was run on these parameters the result would be "Outcome B: No limitation or

routine monitoring requirements are in the permit". As a result of this the reporting for beryllium, antimony, phenols, and thallium will be removed from the DMR's.

The monitoring results for these parameters are included in a table below.

Other Parameters				
	Antimony	Beryllium	Phenols	Thallium
Month	mg/L	mg/L	mg/L	mg/L
Jun-19	0.0006	ND	ND	ND
Dec-19	0.0006	ND	ND	ND
Jun-20	0.0007	ND	ND	ND
Dec-20	0.0007	ND	ND	ND
Jun-21	0.0007	ND	ND	ND
Dec-21	0.0007	ND	ND	ND
Jun-22	0.0007	ND	ND	ND
Dec-22	ND	ND	ND	ND
Jun-23	0.0008	ND	ND	ND
Dec-23	ND	ND	ND	ND
MRL	0.0005	0.0005	0.05	0.0002
WQBEL				
Acute	--	--	--	--
Chronic	--	--	--	--