

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 Annotated ("UCA") 1953, as amended* (the "Act"),

**GRANTSVILLE CITY (Grantsville City Water Reclamation Facility)**

is hereby authorized to discharge from its wastewater treatment facility to receiving waters named

**DRAINAGE DITCH THEN TO BLUE LAKES**

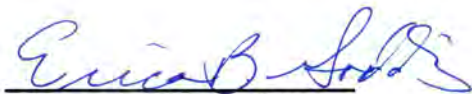
and to discharge storm water,

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

This permit shall become effective on July 1, 2019

This permit expires at midnight on March 31, 2024.

Signed this 26<sup>th</sup> day of June, 2019.



Erica Brown Gaddis, PhD  
Director

DWQ-2018-013135

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**PART I**  
**DISCHARGE PERMIT NO. UT0021130**  
**WASTEWATER**

**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

001

Location of Discharge Outfall

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 001 as defined in *Part VIII*.
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 <sup>1</sup>				
	Maximum Monthly Avg	Maximum Weekly Avg	Yearly Average	Daily Minimum	Daily Maximum
Total Flow, MGD	1.5	-	-	-	-
BOD <sub>5</sub> , mg/L	25	35	-	-	-
BOD <sub>5</sub> Min. % Removal	85	-	-	-	-
TSS, mg/L	25	35	-	-	-
TSS Min. % Removal	85	-	-	-	-
Dissolved Oxygen, mg/L	-	-	-	4	-
<i>E. coli</i> , No./100mL	126	158	-	-	-
pH, Standard Units	-	-	-	6.5	9

Effluent Concentration and Mass Loading Limits
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<sup>1</sup> See Definitions, Part VIII, for definition of terms.

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	Maximum Monthly Avg (mg/L)	Maximum Weekly Avg (mg/L)	Loading cap (lbs./Year)	Loading cap (lbs./Month)	Daily Maximum (mg/L)
Total Ammonia (as N)	-	-	-	412.8	3.2
Summer (Jul-Sep)	2.5	-	-	-	3.2
Fall (Oct-Dec)	2.9	-	-	-	3.2
Winter (Jan-Mar)	1.7	-	-	-	3.2
Spring (Apr-Jun)	-	-	2,839	-	-
Total Phosphorous	-	-	-	-	-

Self-Monitoring and Reporting Requirements <sup>1</sup>			
Parameter	Frequency	Sample Type	Units
Total Flow <sup>2, 3</sup>	Continuous	Recorder	MGD
BOD <sub>5</sub> , Influent <sup>4</sup>	Weekly	Composite	mg/L
Effluent	Weekly	Composite	mg/L
TSS, Influent <sup>4</sup>	Weekly	Composite	mg/L
Effluent	Weekly	Composite	mg/L
<i>E. coli</i>	Weekly	Grab	No./100mL
pH	Weekly	Grab	SU
Total Ammonia (as N)	Weekly	Grab	mg/L
DO	Weekly	Grab	mg/L
Metals <sup>5</sup> , Influent	2 X Yearly	Composite/Grab <sup>8</sup>	mg/L
Effluent	2 X Yearly	Composite/Grab <sup>8</sup>	mg/L
Organic Toxics <sup>6</sup> , Influent	Odd Calendar Years	Grab	
Effluent	Odd Calendar Years	Grab	mg/L
TBPEL Rule Monitoring <sup>7</sup>			
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, NO <sub>3</sub>	Monthly	Composite	mg/L
Nitrite, NO <sub>2</sub>	Monthly	Composite	mg/L

### 3. Compliance Schedule for a Particular Parameter

<sup>2</sup> 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

<sup>3</sup> If the rate of discharge is controlled, the rate and duration of discharge shall be reported

<sup>4</sup> 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

<sup>5</sup> 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.

<sup>6</sup> A list of the organics to be tested can be found in 40CFR122 appendix D table II.

<sup>7</sup> These reflect changes required with the adoption of UCA R317-1-3.3, Technology-based Phosphorus Effluent Limits rule.

<sup>8</sup> Mercury sampling may be grab or composite based on the sampling method. The other metals must be sampled using composite sampling, see Monitoring for Pretreatment Table in Part II.B of the permit.

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- a. There is no Compliance Schedule included in this renewal permit.

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

As part of the nationwide effort to control toxics, biomonitoring requirements are being included in all major permits and in minor permits for facilities where effluent toxicity is an existing or potential concern. Authorization for requiring effluent biomonitoring is provided for in UAC R317-8-4.2 and R317-8-5.3. The State of Utah Permitting and Enforcement Guidance Document for WET Control, February 2018, outlines guidance to be used by Utah Division of Water Quality staff and by permittee's for implementation of WET control through the UPDES discharge permit program.

Grantsville is a minor facility with no reasonable potential for toxicity in the effluent. As a result, biomonitoring of the effluent will not be required. However, the permit will contain a WET reopener provision.

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, post-marked or entered into NetDMR no later than the 28<sup>th</sup> day of the month following the completed reporting period. 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, or 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



**PART II**  
**DISCHARGE PERMIT NO. UT0021130**  
**PRETREATMENT REQUIREMENTS**

**II. PRETREATMENT REQUIREMENTS**

**A. Definitions.**

For this section the following definitions shall apply:

1. Indirect Discharge means the introduction of pollutants into a POTW from any non-domestic source regulated under section 307 (b), (c) or (d) of the Act.
2. Local Limit is defined as a limit designed to prevent pass through and/or interference. And is developed in accordance with 40 CFR 403.5(c).
3. Significant industrial user (SIU) is defined as an industrial user discharging to a publicly-owned treatment works (POTW) that satisfies any of the following:
  - a. Has a process wastewater flow of 25,000 gallons or more per average work day;
  - b. Has a flow greater than five percent of the flow carried by the municipal system receiving the waste;
  - 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.
4. User or Industrial User means a source of Indirect Discharge

**B. Self-Monitoring and Reporting Requirements.**

1. Because the design capacity of this municipal wastewater treatment facility is less than 5 MGD, the permittee will not be required to develop a State-approved industrial pretreatment program at this time. However, in order to determine if development of an industrial pretreatment program is warranted, the permittee shall conduct an **industrial waste survey**, as described in *Part II.C.1*, and submit it to the Division of Water Quality within **sixty (60) calendar days** of the effective date of this permit and shall sample and analyze both the influent and effluent annually, for the following parameters.

Monitoring for Pretreatment Table				
Parameter	MDL <sup>8</sup>	Sample Type	Frequency	Units
Total Arsenic	0.1	Composite	2 X Yearly	mg/L
Total Cadmium	0.0005			
Total Chromium	0.011			
Total Copper	0.0229			
Total Cyanide	0.0052			
Total Lead	0.0081			
Total Mercury	0.000012	Composite/Grab		
Total Molybdenum	NA	Composite		
Total Nickel	0.132			
Total Selenium	0.0046			
Total Silver	0.0213			

<sup>8</sup> 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.

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Monitoring for Pretreatment Table				
Parameter	MDL <sup>8</sup>	Sample Type	Frequency	Units
Total Zinc	0.3			
TTOs, <sup>9</sup>	NA	Composite/Grab	Odd Years	

**C. Industrial Waste Survey.**

1. The "Industrial Waste Survey" as required by *Part II.B.1.* consists of;
  - a. Identifying each industrial user (IU) and determining if the IU is a significant industrial user (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 and/or controlled at all times. Updates must be submitted to the Executive Secretary sixty (60) days following a change to the IWS.
3. Evaluate all significant industrial users at least once every two years to determine if they need to develop a slug prevention plan. If a slug prevention plan is required, the permittee shall notify the Director.
4. Notify all significant industrial users of their obligation to comply with applicable requirements under *Subtitles C and D* of the *Resource Conservation and Recovery Act (RCRA)*.
5. 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 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. The permittee must ensure that Users do not discharge any of the following:

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 (40 CFR 403.5) 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:

<sup>9</sup> 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 (Organic Toxic Pollutants). The pesticides fraction of Appendix D, Table II is suspended unless pesticides are expected to be present.



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- 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.
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 Industrial 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.

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4. Any SIU that must comply with applicable requirements under Subtitles C and D of the Resource Conservation and Recovery Act (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; and/or,
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.
4. Require the permittee to develop an approved 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).

**PART III**  
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**BIOSOLIDS**

**III. BIOSOLIDS REQUIREMENTS**

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.

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**STORM WATER**

**IV. STORM WATER REQUIREMENTS.**

- A. Coverage of This Section. The requirements listed under this section shall apply to storm water discharges if No Exposure Conditions are not met or a No Exposure Certification is not filed within 30 days of the permit's effective date. Storm water discharges from the following portions of the facility may be eligible for coverage under this permit: biosolids drying beds, haul or access roads on which transportation of biosolids may occur, grit screen cleaning areas, chemical loading, unloading and storage areas, salt or sand storage areas, vehicle or equipment storage and maintenance areas, or any other wastewater treatment device or system, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including lands dedicated to the disposal of sewage sludge that are located within the confines of the facility that may have a reasonable expectation to contribute to pollutants in a storm water discharge.
- B. Prohibition of Non-Storm Water Discharges. Except for discharges identified in *Part I.*, and discharges described below in this paragraph, non-storm water discharges are prohibited. The following non-storm water discharges may be authorized under this permit provided the non-storm water component of the discharge is in compliance with this section; discharges from firefighting activities; fire hydrant flushing; potable water sources including waterline flushing; drinking fountain water; irrigation drainage and lawn watering; routine external building wash down water where detergents or other compounds have not been used in the process; pavement wash waters where spills or leaks of toxic or hazardous materials (including oils and fuels) have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; uncontaminated compressor condensate; uncontaminated springs; uncontaminated ground water; and foundation or footing drains where flows are not contaminated with process materials such as solvents.
- C. Storm Water Pollution Prevention Plan Requirements. The permittee must have (on site) and implement a storm water pollution prevention plan as a condition of this permit.
1. Contents of the Plan. The plan shall include, at a minimum, the following items:
- a. *Pollution Prevention Team.* Each plan shall identify a specific individual or individuals within the facility organization as members of a storm water Pollution Prevention Team who are responsible for developing the storm water pollution prevention plan and assisting the facility or plant manager in its implementation, maintenance, and revision. The plan shall clearly identify the responsibilities of each team member. The activities and responsibilities of the team shall address all aspects of the facility's storm water pollution prevention plan.
  - b. *Description of Potential Pollutant Sources.* Each plan shall provide a description of potential sources which may reasonably be expected to add significant amounts of pollutants to storm water discharges or which may result in the discharge of pollutants during dry weather from separate storm sewers draining the facility. Each plan shall identify all activities and significant materials, which may be reasonably expected to have the potential as a significant pollutant source. Each plan shall include, at a minimum:
    - (1) *Drainage.* A site map indicating drainage areas and storm water outfalls. For each area of the facility that generates storm water discharges associated with the waste water treatment related activity with a reasonable potential for containing significant amounts of pollutants, a prediction of the direction of flow and an identification of the types of pollutants that are likely to be present

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in storm water discharges associated with the activity. Factors to consider include the toxicity of the pollutant; quantity of chemicals used, produced or discharged; the likelihood of contact with storm water; and history of significant leaks or spills of toxic or hazardous pollutants. Flows with a significant potential for causing erosion shall be identified. The site map shall include but not be limited to:

- (a) Drainage direction and discharge points from all wastewater associated activities including but not limited to grit screen cleaning, bio-solids drying beds and transport, chemical/material loading, unloading and storage areas, vehicle maintenance areas, salt or sand storage areas.
  - (b) Location of any erosion and sediment control structure or other control measures utilized for reducing pollutants in storm water runoff.
  - (c) Location of bio-solids drying beds where exposed to precipitation or where the transportation of bio-solids may be spilled onto internal roadways or tracked off site.
  - (d) Location where grit screen cleaning or other routinely performed industrial activities are located and are exposed to precipitation.
  - (e) Location of any handling, loading, unloading or storage of chemicals or potential pollutants such as caustics, hydraulic fluids, lubricants, solvents or other petroleum products, or hazardous wastes and where these may be exposed to precipitation.
  - (f) Locations where any major spills or leaks of toxic or hazardous materials have occurred.
  - (g) Location of any sand or salt piles.
  - (h) Location of fueling stations or vehicle and equipment maintenance and cleaning areas that are exposed to precipitation.
  - (i) Location of receiving streams or other surface water bodies.
  - (j) Locations of outfalls and the types of discharges contained in the drainage areas of the outfalls.
- (2) *Inventory of Exposed Materials.* An inventory of the types of materials handled at the site that potentially may be exposed to precipitation. Such inventory shall include a narrative description of significant materials that have been handled, treated, stored or disposed in a manner to allow exposure to storm water between the time of 3 years prior to the effective date of this permit and the present; method and location of onsite storage or disposal; materials management practices employed to minimize contact of materials with storm water runoff between the time of 3 years prior to the effective date of this permit and the present; the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of any treatment the storm water receives.



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- (3) *Spills and Leaks.* A list of significant spills and significant leaks of toxic or hazardous pollutants that occurred at areas that are exposed to precipitation or that otherwise drain to a storm water conveyance at the facility after the date of 3 years prior to the effective date of this permit. Such list shall be updated as appropriate during the term of the permit.
  - (4) *Sampling Data.* A summary of existing discharge sampling data describing pollutants in storm water discharges from the facility, including a summary of sampling data collected during the term of this permit.
  - (5) *Summary of Potential Pollutant Sources and Risk Assessment.* A narrative description of the potential pollutant sources from the following activities associated with treatment works: access roads/rail lines; loading and unloading operations; outdoor storage activities; material handling sites; outdoor vehicle storage or maintenance sites; significant dust or particulate generating processes; and onsite waste disposal practices. Specific potential pollutants shall be identified where known.
- c. *Measures and Controls.* The permittee shall develop a description of storm water management controls appropriate for the facility, and implement such controls. The appropriateness and priorities of controls in a plan shall reflect identified potential sources of pollutants at the facility. The description of storm water management controls shall address the following minimum components, including a schedule for implementing such controls:
- (1) *Good Housekeeping.* All areas that may contribute pollutants to storm waters discharges shall be maintained in a clean, orderly manner. These are practices that would minimize the generation of pollutants at the source or before it would be necessary to employ sediment ponds or other control measures at the discharge outlets. Where applicable, such measures or other equivalent measures would include the following: sweepers and covered storage to minimize dust generation and storm runoff; conservation of vegetation where possible to minimize erosion; sweeping of haul roads, bio-solids access points, and exits to reduce or eliminate off site tracking; sweeping of sand or salt storage areas to minimize entrainment in storm water runoff; collection, removal, and proper disposal of waste oils and other fluids resulting from vehicle and equipment maintenance; other equivalent measures to address identified potential sources of pollution.
  - (2) *Preventive Maintenance.* A preventive maintenance program shall involve timely inspection and maintenance of storm water management devices (e.g., cleaning oil/water separators, catch basins) as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters, and ensuring appropriate maintenance of such equipment and systems.
  - (3) *Spill Prevention and Response Procedures.* Areas where potential spills that can contribute pollutants to storm water discharges can occur, and their accompanying drainage points, shall be identified clearly in the storm water pollution prevention plan. Where appropriate, specifying material handling procedures, storage requirements, and use of equipment such as diversion valves in the plan should be considered. Procedures and equipment for

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**STORM WATER**

cleaning up spills shall be identified in the plan and made available to the appropriate personnel.

- (4) *Inspections.* In addition to the comprehensive site evaluation required under paragraph (*Part IV.C.1.c.(10)*) of this section, qualified facility personnel shall be identified to inspect designated equipment and areas of the facility on a periodic basis. The following areas shall be included in all inspections: access roads/rail lines, equipment storage and maintenance areas (both indoor and outdoor areas); fueling; material handling areas, residual treatment, storage, and disposal areas; and wastewater treatment areas. A set of tracking or follow-up procedures shall be used to ensure that appropriate actions are taken in response to the inspections. Records of inspections shall be maintained. The use of a checklist developed by the facility is encouraged.
- (5) *Employee Training.* Employee training programs shall inform personnel responsible for implementing activities identified in the storm water pollution prevention plan or otherwise responsible for storm water management at all levels of responsibility of the components and goals of the storm water pollution prevention plan. Training should address topics such as spill response, good housekeeping and material management practices. The pollution prevention plan shall identify how often training will take place, but training should be held at least annually (once per calendar year). Employee training must, at a minimum, address the following areas when applicable to a facility: petroleum product management; process chemical management; spill prevention and control; fueling procedures; general good housekeeping practices; proper procedures for using fertilizers, herbicides and pesticides.
- (6) *Record keeping and Internal Reporting Procedures.* A description of incidents (such as spills, or other discharges), along with other information describing the quality and quantity of storm water discharges shall be included in the plan required under this part. Inspections and maintenance activities shall be documented and records of such activities shall be incorporated into the plan.
- (7) *Non-storm Water Discharges.*
  - (a) *Certification.* The plan shall include a certification that the discharge has been tested or evaluated for the presence of non-storm water discharges. The certification shall include the identification of potential significant sources of non-storm water at the site, a description of the results of any test and/or evaluation for the presence of non-storm water discharges, the evaluation criteria or testing method used, the date of any testing and/or evaluation, and the onsite drainage points that were directly observed during the test. Certifications shall be signed in accordance with *Part VII.G* of this permit.
  - (b) *Exceptions.* Except for flows from firefighting activities, sources of non-storm water listed in *Part IV.B. (Prohibition of Non-storm Water Discharges)* of this permit that are combined with storm water discharges associated with industrial activity must be identified in the plan. The plan shall identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.

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- (c) *Failure to Certify.* Any facility that is unable to provide the certification required (testing for non-storm water discharges), must notify the *Director* within 180 days after the effective date of this permit. If the failure to certify is caused by the inability to perform adequate tests or evaluations, such notification shall describe: the procedure of any test conducted for the presence of non-storm water discharges; the results of such test or other relevant observations; potential sources of non-storm water discharges to the storm sewer; and why adequate tests for such storm sewers were not feasible. Non-storm water discharges to waters of the State, which are not, authorized by a *UPDES* permit are unlawful, and must be terminated.
- (8) *Sediment and Erosion Control.* The plan shall identify areas, which, due to topography, activities, or other factors, have a high potential for significant soil erosion, and identify structural, vegetative, and/or stabilization measures to be used to limit erosion.
- (9) *Management of Runoff.* The plan shall contain a narrative consideration of the appropriateness of traditional storm water management practices (practices other than those which control the generation or source(s) of pollutants) used to divert, infiltrate, reuse, or otherwise manage storm water runoff in a manner that reduces pollutants in storm water discharges from the site. The plan shall provide that measures that the permittee determines to be reasonable and appropriate shall be implemented and maintained. The potential of various sources at the facility to contribute pollutants to storm water discharges associated with industrial activity *Part IV.C.1.b* (Description of Potential Pollutant Sources) of this permit] shall be considered when determining reasonable and appropriate measures. Appropriate measures or other equivalent measures may include: vegetative swales and practices, reuse of collected storm water (such as for a process or as an irrigation source), inlet controls (such as oil/water separators), snow management activities, infiltration devices, wet detention/retention devices and discharging storm water through the waste water facility for treatment.
- (10) *Comprehensive Site Compliance Evaluation.* Qualified personnel shall conduct site compliance evaluations at appropriate intervals specified in the plan, but in no case less than once a year. Such evaluations shall provide:
  - (a) Areas contributing to a storm water discharge associated with industrial activity shall be visually inspected for evidence of, or the potential for, pollutants entering the drainage system. Measures to reduce pollutant loadings shall be evaluated to determine whether they are adequate and properly implemented in accordance with the terms of the permit or whether additional control measures are needed. Structural storm water management measures, sediment and erosion control measures, and other structural pollution prevention measures identified in the plan shall be observed to ensure that they are operating correctly. A visual inspection of equipment needed to implement the plan, such as spill response equipment, shall be made.
  - (b) Based on the results of the evaluation, the description of potential pollutant sources identified in the plan in accordance with *Part IV.C.1.b* (Description of Potential Pollutant Sources) of this section and pollution prevention measures and controls identified in the plan in accordance with

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*Part IV.C.1.c.* (Measures and Controls) of this section shall be revised as appropriate within 2 weeks of such evaluation and shall provide for implementation of any changes to the plan in a timely manner, but in no case more than 12 weeks after the evaluation.

- (c) A report summarizing the scope of the evaluation, personnel making the evaluation, the date(s) of the evaluation, major observations relating to the implementation of the storm water pollution prevention plan, and actions taken in accordance with paragraph (b) (above) shall be made and retained as part of the storm water pollution prevention plan for at least 3 years after the date of the evaluation. The report shall identify any incidents of noncompliance. Where a report does not identify any incidents of noncompliance, the report shall contain a certification that the facility is in compliance with the storm water pollution prevention plan and this permit. The report shall be signed in accordance with *Part VII.G* (Signatory Requirements) of this permit.
- (11) *Deadlines for Plan Preparation and Compliance.* The permittee shall prepare and implement a plan in compliance with the provisions of this section within 270 days of the effective date of this permit. If the permittee already has a plan, it shall be revised according to *Part IV.C.1.c.(10)*, Comprehensive Site Evaluation.
- (12) *Keeping Plans Current.* The permittee shall amend the plan whenever there is a change in design, construction, operation, or maintenance, that has a significant effect on the potential for the discharge of pollutants to the waters of the state or if the storm water pollution prevention plan proves to be ineffective in eliminating or significantly minimizing pollutants from sources identified by the plan, or in otherwise achieving the general objective of controlling pollutants in storm water discharges associated with the activities at the facility.

**D. Monitoring and Reporting Requirements.**

- 1. Quarterly Visual Examination of Storm Water Quality. Facilities shall perform and document a visual examination of a storm water discharge associated with industrial activity from each outfall, except discharges exempted below. The examination must be made at least once in each of the following designated periods during daylight hours unless there is insufficient rainfall or snow melt to produce a runoff event: January through March; April through June; July through September; and October through December.
  - a. *Sample and Data Collection.* Examinations shall be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed 1 hour) of when the runoff or snowmelt begins discharging. The examinations shall document observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution. The examination must be conducted in a well-lit area. No analytical tests are required to be performed on the samples. All such samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. Where practicable, the same individual should carry out the collection and examination of discharges for entire permit term.



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- b. *Visual Storm Water Discharge Examination Reports.* Visual examination reports must be maintained onsite in the pollution prevention plan. The report shall include the examination date and time, examination personnel, the nature of the discharge (i.e., runoff or snow melt), visual quality of the storm water discharge (including observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution), and probable sources of any observed storm water contamination.
- c. *Representative Discharge.* When the permittee has two or more outfalls that, based on a consideration of industrial activity, significant materials, and management practices and activities within the area drained by the outfall, the permittee reasonably believes discharge substantially identical effluents, the permittee may collect a sample of effluent of one of such outfalls and report that the observation data also applies to the substantially identical outfall(s) provided that the permittee includes in the storm water pollution prevention plan a description of the location of the outfalls and explains in detail why the outfalls are expected to discharge substantially identical effluents. In addition, for each outfall that the permittee believes is representative, an estimate of the size of the drainage area (in square feet) and an estimate of the runoff coefficient of the drainage area [e.g., low (under 40 percent), medium (40 to 65 percent), or high (above 65 percent)] shall be provided in the plan.
- d. *Adverse Conditions.* When a discharger is unable to collect samples over the course of the visual examination period as a result of adverse climatic conditions, the discharger must document the reason for not performing the visual examination and retain this documentation onsite with the results of the visual examination. Adverse weather conditions, which may prohibit the collection of samples, include weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.) or otherwise make the collection of a sample impracticable (drought, extended frozen conditions, etc.).
- e. *Inactive and Unstaffed Site.* When a discharger is unable to conduct visual storm water examinations at an inactive and unstaffed site, the operator of the facility may exercise a waiver of the monitoring requirement as long as the facility remains inactive and unstaffed. The facility must maintain a certification with the pollution prevention plan stating that the site is inactive and unstaffed so that performing visual examinations during a qualifying event is not feasible.



**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 and 40CFR Part 503*, unless other test procedures have been specified in this permit.
- 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 *UAC R317-2-10 and 40 CFR 503* or as specified in this permit, 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. Such increased frequency shall also be indicated. Only those parameters required by the permit need to be reported.
- 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, (801) 536-4300, or 24-hour answering service (801) 536-4123.

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2. The following occurrences of noncompliance shall be reported by telephone (801) 536-4300 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 maximum daily discharge limitation for any of the pollutants listed in the permit; 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;

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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. Any person who willfully or negligently violates permit conditions or the Act is subject to a fine not exceeding \$25,000 per day of violation. Any person convicted under UCA 19-5-115(2) a second time shall be punished by a fine not exceeding \$50,000 per day. 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:

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- (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 *section 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 *sections VI.G.2.a (1), (2) and (3)*.
3. Notice.
- a. *Anticipated bypass.* Except as provided above in *section VI.G.2* and below in *section 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 *section 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



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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 the alteration or addition could significantly change the nature or increase the quantity of parameters discharged or pollutant sold or given away. This notification applies to pollutants, which are not subject to effluent limitations in the permit. In addition, if there are any planned substantial changes to the permittee's existing sludge facilities or their manner of operation or to current sludge management practices of storage and disposal, 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.
  - 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. 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

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having overall responsibility for environmental matters. A duly authorized representative may thus be either a named individual or any individual occupying a named position.

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;

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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 *UCA 19-5-117* and *Section 510* of the *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 area-wide 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.
- R. Storm Water-Reopener Provision. At any time during the duration (life) of this permit, this permit may be reopened and modified (following proper administrative procedures) as per *UAC R317.8*, to include, any applicable storm water provisions and requirements, a storm water pollution prevention plan, a compliance schedule, a compliance date, monitoring and/or

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reporting requirements, or any other conditions related to the control of storm water discharges to "waters-of-State".



**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. "Act," means the *Utah Water Quality Act*.
4. "Acute toxicity" occurs when 50 percent or more mortality is observed for either test species at any effluent concentration (lethal concentration or "LC<sub>50</sub>").
5. "Bypass," means the diversion of waste streams from any portion of a treatment facility.
6. "Chronic toxicity" occurs when the IC<sub>25</sub> < 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.
7. "IC<sub>25</sub>" 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.
8. "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;

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- 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.
- 9. "CWA," means *The Federal Water Pollution Control Act*, as amended, by *The Clean Water Act of 1987*.
  - 10. "Daily Maximum" (Daily Max.) is the maximum value allowable in any single sample or instantaneous measurement.
  - 11. "EPA," means the United States Environmental Protection Agency.
  - 12. "Director," means Director of the Division of Water Quality.
  - 13. A "grab" sample, for monitoring requirements, is defined as a single "dip and take" sample collected at a representative point in the discharge stream.
  - 14. An "instantaneous" measurement, for monitoring requirements, is defined as a single reading, observation, or measurement.
  - 15. "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.
  - 16. "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.

**B. Storm Water.**

- 1. "Best Management Practices" ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.
- 2. "Coal pile runoff" means the rainfall runoff from or through any coal storage pile.
- 3. "Co-located industrial activity" means when a facility has industrial activities being conducted onsite that are described under more than one of the coverage sections of *Appendix II* in the General Multi-Sector Permit for Storm Water Discharges Associated with Industrial Activity. Facilities with co-located industrial activities shall comply with all applicable monitoring and pollution prevention plan requirements of each section in which a co-located industrial activity is described.

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4. "Commercial Treatment and Disposal Facilities" means facilities that receive, on a commercial basis, any produced hazardous waste (not their own) and treat or dispose of those wastes as a service to the generators. Such facilities treating and/or disposing exclusively residential hazardous wastes are not included in this definition.
5. "Landfill" means an area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile.
6. "Land application unit" means an area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for treatment or disposal.
7. "Municipal separate storm sewer system" (large and/or medium) means all municipal separate storm sewers that are either:
  - a. Located in an incorporated place (city) with a population of 100,000 or more as determined by the latest Decennial Census by the Bureau of Census (at the issuance date of this permit, Salt Lake City is the only city in Utah that falls in this category); or
  - b. Located in the counties with unincorporated urbanized populations of 100,000 or more, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties (at the issuance date of this permit Salt Lake County is the only county that falls in this category); or
  - c. Owned or operated by a municipality other than those described in paragraph *a.* or *b.* (above) and that are designated by the *Director* as part of the large or medium municipal separate storm sewer system.
8. "NOI" means "notice of intent", it is an application form that is used to obtain coverage under the General Multi-Sector Permit for Storm Water Discharges Associated with Industrial Activity.
9. "NOT" means "notice of termination", it is a form used to terminate coverage under the General Multi-Sector Permit for Storm Water Discharges Associated with Industrial Activity.
10. "Point source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.
11. "Section 313 water priority chemical" means a chemical or chemical categories that:
  - a. Are listed at 40 CFR 372.65 pursuant to Section 313 of the *Emergency Planning and Community Right-to-Know Act (EPCRA)* (also known as *Title III of the Superfund Amendments and Reauthorization Act (SARA)* of 1986);

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- b. Are present at or above threshold levels at a facility subject to *EPCRA Section 313* reporting requirements; and
- c. Meet at least one of the following criteria:
  - (1) Are listed in *Appendix D* of *40 CFR Part 122* on either Table II (organic priority pollutants), Table III (certain metals, cyanides, and phenols) or Table V (certain toxic pollutants and hazardous substances);
  - (2) Are listed as a hazardous substance pursuant to *Section 311(b)(2)(A)* of the *CWA* at *40 CFR 116.4*; or
  - (3) Are pollutants for which EPA has published acute or chronic water quality criteria. See *Appendix III* of this permit. This appendix was revised based on final rulemaking EPA published in the *Federal Register* November 30, 1994.
- 12. "Significant materials" includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under *Section 101(14)* of *CERCLA*; any chemical the facility is required to report pursuant to *EPCRA Section 313*; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with storm water discharges.
- 13. "Significant spills" includes, but is not limited to: releases of oil or hazardous substances in excess of reportable quantities under *Section 311 of the Clean Water Act* (see *40 CFR 110.10* and *CFR 117.21*) or *Section 102* of *CERCLA* (see *40 CFR 302.4*).
- 14. "Storm water" means storm water runoff, snowmelt runoff, and surface runoff and drainage.
- 15. "SWDMR" means "storm water discharge monitoring report", a report of the results of storm water monitoring required by the permit. The Division of Water Quality provides the storm water discharge monitoring report form.
- 16. "Storm water associated with industrial activity" (*UAC R317-8-3.8(6)(c) & (d)*) means the discharge from any conveyance that is used for collecting and conveying storm water and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the *UPDES* program. For the categories of industries identified in paragraphs (a) through (j) of this definition, the term includes, but is not limited to, storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined in *40 CFR Part 401*); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. For the categories of industries identified in paragraph (k) of this definition, the term includes only storm water discharges from all areas (except access roads and rail lines) listed in the previous



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sentence where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water. For the purposes of this paragraph, material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. Industrial facilities (including industrial facilities that are Federally, State, or municipally owned or operated that meet the description of the facilities listed in paragraphs (a) to (k) of this definition) include those facilities designated under *UAC R317-8-3.8(1)(a)5*. The following categories of facilities are considered to be engaging in "industrial activity" for purposes of this subsection:

- a. Facilities subject to storm water effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards under *40 CFR Subchapter N* (except facilities with toxic pollutant effluent standards that are exempted under category (k) of this definition);
- b. Facilities classified as Standard Industrial Classifications 24 (except 2434), 26 (except 265 and 267), 28 (except 283 and 285), 29, 311, 32 (except 323), 33, 3441, 373;
- c. Facilities classified as Standard Industrial Classifications 10 through 14 (mineral industry) including active or inactive mining operations (except for areas of coal mining operations no longer meeting the definition of a reclamation area under *40 CFR 434.11(l)* because the performance bond issued to the facility by the appropriate SMCRA authority has been released, or except for areas of non-coal mining operations that have been released from applicable State or Federal reclamation requirements after December 17, 1990) and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge storm water contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts or waste products located on the site of such operations; inactive mining operations are mining sites that are not being actively mined, but that have an identifiable owner/operator;
- d. Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under Subtitle C of RCRA;
- e. Landfills, land application sites, and open dumps that have received any industrial wastes (waste that is received from any of the facilities described under this subsection) including those that are subject to regulation under *Subtitle D* of RCRA;
- f. Facilities involved in the recycling of materials, including metal scrapyards, battery reclaimers, salvage yards, and automobile junkyards, including but limited to those classified as Standard Industrial Classification 5015 and 5093;
- g. Steam electric power generating facilities, including coal handling sites;



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- h. Transportation facilities classified as Standard Industrial Classifications 40, 41, 42 (except 4221-25), 43, 44, 45 and 5171 that have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations. Only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, airport deicing operations, or that are otherwise identified under paragraphs (a) to (g) or (l) to (k) of this subsection are associated with industrial activity;
  - i. Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of 1.0 mgd or more, or required to have an approved pretreatment program under *40 CFR Part 403*. Not included are farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and that are not physically located in the confines of the facility, or areas that are in compliance with *40 CFR Part 503*;
  - j. Construction activity including clearing, grading and excavation activities except: operations that result in the disturbance of less than 5 acres of total land area that are not part of a larger common plan of development or sale;
  - k. Facilities under Standard Industrial Classifications 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 285, 30, 31 (except 311), 323, 34 (except 3441), 35, 36, 37 (except 373), 38, 39, 4221-25, (and that are not otherwise included within categories (a) to (j))
17. "Waste pile" means any non-containerized accumulation of solid, non-flowing waste that is used for treatment or storage.

**FACT SHEET AND STATEMENT OF BASIS  
GRANTSVILLE CITY WATER RECLAMATION FACILITY  
RENEWAL PERMIT: DISCHARGE & STORM WATER  
UPDES PERMIT NUMBER: UT0021130  
MINOR MUNICIPAL**

**FACILITY CONTACTS**

Person Name: James Waltz  
Position: Public Works Director  
Phone Number: (435) 884-3411

Person Name: Marcus Seat  
Position: Operator  
Phone Number: (435) 884-3411

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 Lagoons (Grantsville) were constructed in 1972. The lagoons service the city of Grantsville with a service population of approximately 5000. The average design flow capacity in 2009 was 0.76 MGD, population equivalent of 6323 through the year 2015, and influent organic loadings of 170mg/L or 1,075lbs/day each for BOD<sub>5</sub> and TSS. The peak design flow was 1.9 MGD.

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 City's Lagoons consist of 8 lagoons, 1 primary, 1 secondary, 2 tertiary and 4 empty lagoons to allow for overflow. Their lagoons included aerators. 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. Following the disinfection building is an effluent 15-inch Palmer Bowlus flume and Drexel Brook flow sensor.

The facility's discharge location at Outfall 001 is located at latitude 40°37'15" and longitude 112°26'50" and STORET number 496024.

Grantsville improved and changed some of the treatment process on site. Most notably they have improved the primary cell. They now use an Advanced Treatment Lagoon Activated Sludge system utilizing a Decant BioBalanced Reactor technology to manage biosolids (ATLAS™ - DBBR).

The process was described in the Anti-Degradation Review Facility Management Plan as, “The basic ATLAS framework uses conventional low-rate activated sludge process with process oxygen requirements provided by fine bubble aeration and system biomass controlled by a decant operation. The ATLAS-DBBR system is comprised of integrated hardware equipment design specifically to meet the treatment objectives of the plant. The key determinate technologies include in-basin aeration equipment (floating air laterals and diffusers), blowers, decant piping and valves and integrated process control logic.”

The result of the process change is that the facility has greatly improved the effluent quality and increased capacity. Grantsville requested the design capacity (discharge flow limit) of the facility be adjusted to match and submitted the Anti-Degradation Review and supporting reports for the changes. This Document (DWQ-2014-007999) was included in the attachments to the Fact Sheet Statement of Basis (FSSOB) for the renewal in 2014. It will not be attached to this, or future FSSOBs for Public Comment, but is available from DWQ.

Water Quality reviewed the receiving waters and generated a report (DWQ-2014-009708). The review confirmed the status of the receiving water bodies as 3D. A Waste Load Analyses (DWQ-2014-009709) was developed, resulting in some limit changes for the 2014 renewal permit. These documents were included in the attachments to the Fact Sheet Statement of Basis (FSSOB) for the renewal in 2014 but will not be attached to this, or future FSSOBs for Public Comment. They are available from DWQ.

In the 2014 renewal a mass loading limit for ammonia during the months of July, August and September was added to the permit, as well as a minimum limit for dissolved oxygen.

The mass loading limit is calculated as shown here;

$$\text{Mass Loading, lbs} = (\text{Ave Flow}) * (\text{Ave Concetration}) * \left(8.34 \frac{\text{lbs}}{\text{gal}}\right) * (\text{Days Discharged})$$

Monitoring for metal and total toxic organics was also added to the permit during this renewal.

### **SUMMARY OF CHANGES FROM PREVIOUS PERMIT**

#### **1. Reasonable Potential Analysis**

During the permit cycle, Water Quality has worked to improve our reasonable potential analysis (RP) for parameters to have limits included by using an EPA provided model. The results of the RP Analysis are included in Attachment 4 of the FSSOB.

## 2. Mercury Monitoring

Monitoring for mercury will be improved, but the frequency will not be increased as a result of the RP analysis included in Appendix 4 of the FSSOB. Grantsville will be required to have the effluent analyzed for mercury by 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.

## 3. TBPEL Rule

Water Quality adopted UAC R317-1-3.3, Technology-Based Phosphorus Effluent Limit (TBPEL) Rule on December 16, 2014. No TBPEL will be 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. Absent field data to determine these loads, and in case of intermittent discharging lagoons, the phosphorus load cap will be estimated by the Director.

The TBPEL discharging treatment works are required to implement, at a minimum, monthly monitoring of the following beginning July 1, 2015:

R317-1-3.3, E, 1, a. Influent for total phosphorus (as P) and total Kjeldahl nitrogen (as N) concentrations;

R317-1-3.3, E, 1, b. Effluent for total phosphorus and orthophosphate (as P), ammonia, nitrate-nitrite and total Kjeldahl nitrogen (as N);

In R317-1-3.3, E, 3 the rule states that all monitoring shall be based on 24-hour composite samples by use of an automatic sampler or a minimum of four grab samples collected a minimum of two hours apart.

A cap of 125% of the current annual total phosphorus load has been established and is referred to as phosphorus loading cap. It is the intent of *UAC R317-3.3.B* to provide capacity for growth within your facility's service area by setting the loading cap at 125 percent of your current annual total phosphorus load. Grantsville's current annual total phosphorus load was calculated based on the data reported on your monthly discharge monitoring reports. Grantsville's phosphorus loading cap is 2839 lbs/year and went into effect July 1, 2018.

Once the lagoon's phosphorus loading cap has been reached, the owner of the facility will have five years to construct treatment processes or implement treatment alternatives to prevent the total phosphorus loading cap from being exceeded.

The permit effluent limits will incorporate the following change as a result of the phosphorus loading cap:

Parameter	Effluent Limitations				
	Maximum Monthly Avg	Maximum Weekly Avg	lbs./Year	Daily Minimum	Daily Maximum
Total Phosphorus, lbs	-	-	2839	-	-

## **DISCHARGE**

### **DESCRIPTION OF DISCHARGE**

Grantsville City has upgraded their primary and secondary ponds for improved aeration. This greatly improved the effluent quality and eliminated BOD violations. Grantsville has been reporting self-monitoring results on Discharge Monitoring Reports on a monthly basis.

#### **Outfall**

001

#### **Description of Discharge Point**

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**

If a discharge were to occur, it would be pumped into a drainage ditch, thence to Blue Lakes, thence to an irrigation ditch, which are a Class 2B, 3D and 4 according to *Utah Administrative Code (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.

### **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. The oil and grease is based on best professional judgment (BPJ). Dissolved oxygen is the same limit as the previous permit. Attached is a Wasteload Analysis (WLA) for this discharge into the unnamed irrigation ditch. The inclusion of ammonia limits is based on the WLA. 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 reasonable potential analysis (RP) 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 qualitative RP analysis was performed using the effluent metals monitoring data to determine if there was reasonable potential for the discharge to exceed the applicable water quality standards. Based on the RP analysis, no metals were determined to have a reasonable potential to exceed the water quality standard. In addition, the RP analysis for mercury indicates using a more sensitive analytical method is required. A copy of the RP analysis is included at the end of this Fact Sheet.

The permit limitations are:



Parameter	Effluent Limitations <sup>1</sup>				
	Maximum Monthly Avg	Maximum Weekly Avg	Yearly Average	Daily Minimum	Daily Maximum
Total Flow, MGD	1.5	-	-	-	-
BOD <sub>5</sub> , mg/L	25	35	-	-	-
BOD <sub>5</sub> Min. % Removal	85	-	-	-	-
TSS, mg/L	25	35	-	-	-
TSS Min. % Removal	85	-	-	-	-
Dissolved Oxygen, mg/L	-	-	-	4	-
<i>E. coli</i> , No./100mL	126	158	-	-	-
pH, Standard Units	-	-	-	6.5	9

Effluent Concentration and Mass Loading Limits					
Parameter	Maximum Monthly Avg (mg/L)	Maximum Weekly Avg (mg/L)	Loading cap (lbs./Year)	Loading cap (lbs./Month)	Daily Maximum (mg/L)
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	-	-

### SELF-MONITORING AND REPORTING REQUIREMENTS

The following self-monitoring requirements have been modified since the previous permit. 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 <sup>1</sup>			
Parameter	Frequency	Sample Type	Units
Total Flow <sup>2, 3</sup>	Continuous	Recorder	MGD
BOD <sub>5</sub> , Influent <sup>4</sup>	Weekly	Composite	mg/L
Effluent	Weekly	Composite	mg/L
TSS, Influent <sup>4</sup>	Weekly	Composite	mg/L
Effluent	Weekly	Composite	mg/L
<i>E. coli</i>	Weekly	Grab	No./100mL
pH	Weekly	Grab	SU

<sup>1</sup> See Definitions, Part VIII, for definition of terms.

<sup>2</sup> 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

<sup>3</sup> If the rate of discharge is controlled, the rate and duration of discharge shall be reported

<sup>4</sup> 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

Self-Monitoring and Reporting Requirements <sup>1</sup>			
Parameter	Frequency	Sample Type	Units
Total Ammonia (as N)	Weekly	Grab	mg/L
DO	Weekly	Grab	mg/L
Metals <sup>5</sup> , Influent	2 X Yearly	Composite/Grab	mg/L
Effluent	2 X Yearly	Composite/Grab	mg/L
Organic Toxics <sup>6</sup> , Influent	Odd Calendar Years	Grab	mg/L
Effluent	Odd Calendar Years	Grab	
TBPEL Rule Monitoring <sup>7</sup>			
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

### **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**

#### **STORMWATER REQUIREMENTS**

Storm water provisions are included in this combined UPDES permit.

Last permit cycle Grantsville submitted a No Exposure Certification stating that they were complying with all No Exposure requirements and therefore were exempt from the requirements of the UPDES Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity, General Permit No. UTR000000 (MSGP). Certifications are good for a period of five years and a new one must be submitted within 30 days of the effective date of this permit to continue coverage. If at any time No Exposure conditions can no longer be met, the storm water requirements of the MSGP must be followed.

<sup>5</sup> 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.

<sup>6</sup> A list of the organics to be tested can be found in 40CFR122 appendix D table II.

<sup>7</sup> These reflect changes required with the adoption of UCA R317-1-3.3, Technology-based Phosphorus Effluent Limits rule.

All sections of the MSGP that pertain to discharges from wastewater treatment plants have been included and sections which are redundant or do not pertain have been deleted.

The permit requires the preparation and implementation of a storm water pollution prevention plan for all areas within the confines of the plant. Elements of this plan are required to include:

1. The development of a pollution prevention team,
2. Development of drainage maps and materials stockpiles,
3. An inventory of exposed materials,
4. Spill reporting and response procedures,
5. A preventative maintenance program,
6. Employee training,
7. Certification that storm water discharges are not mixed with non-storm water discharges,
8. Compliance site evaluations and potential pollutant source identification, and
9. Visual examinations of storm water discharges.

### **PRETREATMENT REQUIREMENTS**

The permittee has not been designated for pretreatment program development because it does not meet conditions which necessitate a full program. The flow through the plant is less than five (5) MGD, there are no categorical industries discharging to the treatment facility, industrial discharges comprise less than 1 percent of the flow through the treatment facility, and there is no indication of pass through or interference with the operation of the treatment facility such as upsets or violations of the POTW's UPDES permit limits.

Although the permittee does not have to develop a State-approved pretreatment program, any wastewater discharges to the sanitary sewer are subject to Federal, State and local regulations. Pursuant to Section 307 of the Clean Water Act, the permittee 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.

An industrial waste survey (IWS) is required of the permittee as stated in Part II of the permit. The IWS is to assess the needs of the permittee regarding pretreatment assistance. The IWS is required to be submitted within sixty (60) days after the issuance of the permit. If an Industrial User begins to discharge or an existing Industrial User changes their discharge the permittee must resubmit an IWS no later than sixty days following the introduction or change as stated in Part II of the permit.

It is required that the permittee submit for review any local limits that are developed to the Division of Water Quality for review. If local limits are developed it is required that the permittee 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 State of Utah Permitting and Enforcement Guidance Document for Whole Effluent Toxicity Control (biomonitoring). 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 a minimal amount of effluent, in which toxicity is neither an existing concern, nor likely to be present. Based on this consideration, 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, February 2018). 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 by  
Daniel Griffin, Discharge, Reasonable Potential Analysis  
Jennifer Robinson, Pretreatment  
Lisa Stevens, Storm Water  
Nick von Stackelberg, Wasteload Analysis  
Utah Division of Water Quality, (801) 536-4300

**PUBLIC NOTICE**

Began: May 2, 2019  
Ended: June 3, 2019

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 Tooele Transcript & Bulletin.

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.

**ADDENDUM TO FSSOB**

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.

**Responsiveness Summary**

There were no comments received during the public comment period therefore the permit and FSSOB are the same as the public notice versions.



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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, bluing 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, non-biodegradable 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  
PO Box 144870  
Salt Lake City, UT 84114-4870

Phone: (801) 536-4383  
Fax: (801) 536-4301  
E-mail: [jenrobinson@utah.gov](mailto: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. <input type="checkbox"/> Domestic wastes              | (Restrooms, employee showers, etc.)                    |
| 2. <input type="checkbox"/> Cooling water, non-contact   | 3. <input type="checkbox"/> Boiler/Tower blowdown      |
| 4. <input type="checkbox"/> Cooling water, contact       | 5. <input type="checkbox"/> Process                    |
| 6. <input type="checkbox"/> Equipment/Facility wash-down | 7. <input type="checkbox"/> Air Pollution Control Unit |
| 8. <input type="checkbox"/> Storm water runoff to sewer  | 9. <input type="checkbox"/> Other describe             |

Wastes are discharged to (check all that apply):

- |   |                                       |
|---|---------------------------------------|
| <input type="checkbox"/> Sanitary sewer   | <input type="checkbox"/> Storm sewer  |
| <input type="checkbox"/> Surface water    | <input type="checkbox"/> Ground water |
| <input type="checkbox"/> Waste haulers    | <input type="checkbox"/> Evaporation  |
| <input type="checkbox"/> 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:**

- |   |  |
|---|--|
| <input type="checkbox"/> Adhesives                                    | <input type="checkbox"/> Car Wash                  |
| <input type="checkbox"/> Aluminum Forming                             | <input type="checkbox"/> Carpet Cleaner            |
| <input type="checkbox"/> Battery Manufacturing                        | <input type="checkbox"/> Dairy                     |
| <input type="checkbox"/> Copper Forming                               | <input type="checkbox"/> Food Processor            |
| <input type="checkbox"/> Electric & Electronic Components             | <input type="checkbox"/> Hospital                  |
| <input type="checkbox"/> Explosives Manufacturing                     | <input type="checkbox"/> Laundries                 |
| <input type="checkbox"/> Foundries                                    | <input type="checkbox"/> Photo Lab                 |
| <input type="checkbox"/> Inorganic Chemicals Mfg. or Packaging        | <input type="checkbox"/> Restaurant & Food Service |
| <input type="checkbox"/> Industrial Porcelain Ceramic Manufacturing   | <input type="checkbox"/> Septage Hauler            |
| <input type="checkbox"/> Iron & Steel                                 | <input type="checkbox"/> Slaughter House           |
| <input type="checkbox"/> Metal Finishing, Coating or Cleaning         |  |
| <input type="checkbox"/> Mining                                       |  |
| <input type="checkbox"/> Nonferrous Metals Manufacturing              |  |
| <input type="checkbox"/> Organic Chemicals Manufacturing or Packaging |  |
| <input type="checkbox"/> Paint & Ink Manufacturing                    |  |
| <input type="checkbox"/> Pesticides Formulating or Packaging          |  |
| <input type="checkbox"/> Petroleum Refining                           |  |
| <input type="checkbox"/> Pharmaceuticals Manufacturing or Packaging   |  |
| <input type="checkbox"/> Plastics Manufacturing                       |  |
| <input type="checkbox"/> Rubber Manufacturing                         |  |
| <input type="checkbox"/> Soaps & Detergents Manufacturing             |  |
| <input type="checkbox"/> Steam Electric Generation                    |  |
| <input type="checkbox"/> Tanning Animal Skins                         |  |
| <input type="checkbox"/> Textile Mills                                |  |

**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

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Waste Treatment Facility

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

**Jennifer Robinson  
Division of Water Quality  
PO Box 144870  
Salt Lake City, Utah 84114-4870**

**Phone:** (801) 536-4383  
**Fax:** (801) 536-4301  
**E-Mail:** [jenrobinson@utah.gov](mailto: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	Flow	pH		Do	N			E. coli		BOD		TSS	
Month	Ave	Max	Min	Max	Min	Max	Ave	lbs/mo	Ave	Max	Ave	Max	Ave	Max
Jan-15	0	0												
Feb-15	0	0												
Mar-15	0	0												
Apr-15	0.21	0.59	7.8	9.6	8.2	0.6	0.4		1	1	2.5	2.5	5	8
May-15	0.37	0.31	8.1	8.7	7.9	0.6	0.6		1	1	2.5	2.5	2	2
Jun-15	0.24	0.27	7.5	8.9	5.6	0.9	0.7		1	1	2.5	2.5	2	2
Jul-15	0.22	0.31	8.2	8.5	4.6	1			1	1	2.5	2.5	2	2
Aug-15	0.08	0.33	8.2	8.4	4.0	0.7		7	1	2	2.5	2.5	3	4
Sep-15	0.16	0.3	7.8	8.1	4.4	3.4		113	1	1	2.5	2.5	2	2
Oct-15	0	0												
Nov-15	0	0												
Dec-15	0	0												
Jan-16	0.22	0.29	8.1	8.6	11.1	0.4	0.3		1	1	2.5	2.5	5.5	12
Feb-16	0.30	0.31	8.8	9.1	17.0	0.4	0.2		1	1	5.38	7	16.25	20
Mar-16	0	0												
Apr-16	0.29	0.37	8.4	8.7	8.6	0.1	0.1		1	1	2.5	2.5	2	2
May-16	0.22	0.31	8.6	8.8	6.6	0.1	0.1		1	1	2.5	2.5	2.5	4
Jun-16	0.20	0.31	7.9	8.5	4.3	2.8	1.7		1	1	2.5	2.5	2	2
Jul-16	0	0												
Aug-16	0	0												
Sep-16	0	0												
Oct-16	0.43	0.71	7.8	8.0	4.8	0.4	0.4		0	1	2.5	2.5	2	2
Nov-16	0.51	0.65	7.6	8.1	4.9	0.4	0.2		1	1	2.5	2.5	2	2
Dec-16	0.42	0.53	8.0	8.7	10.5	0.2	0.2		1	1	3.38	6	4	10
Jan-17	0.33	0.40	7.9	7.9	20.3	0.1	0.1		1	1	2.5	2.5	10	10
Feb-17	0	0												
Mar-17	0	0												
Apr-17	0.56	0.65	8.9	9.0	9.8	0.1	0.1		1	1	4	6	2.5	4
May-17	0.55	0.73	8.6	8.9	7.5	1.2	0.6		1	1	6.4	7	3.8	11
Jun-17	0.41	0.65	8.3	8.5	4.4	0.4	0.3		1	1	5.88	10	2	2
Jul-17	0.41	0.68	6.7	8.5	4.0	1.5		61	1	1	3	5	2.8	6
Aug-17	0	0												
Sep-17	0.14	0.66	7.8	8.0	3.8	3.1		41	1	1	2.5	2.5	2	2
Oct-17	0	0												
Nov-17	0	0												
Dec-17	0.73	0.9	6.9	7.6	4.6	1.2	0.6		3	36	2.5	2.5	2	2
Jan-18	0.35	0.83	7.2	7.7	4.1	1.6	1.2		1	1	2.5	2.5	2	2
Feb-18	0.62	0.70	7.4	9.0	9.9	0.2	0.1		1	1	5.4	7	8.5	14
Mar-18	0	0												
Apr-18	0.41	0.65	8.4	8.6	6.5	0.2	0.1		1	1	2.5	2.5	2	2
May-18	0.43	0.60	8.0	8.4	4.5	0.4	0.3		1	1	2.5	2.5	2	2
Jun-18	0	0												
Jul-18	0.28	0.44	8.0	8.2	4.1	0.2		11	1	1	2.5	2.5	2	2
Aug-18	0.40	0.48	7.7	8.2	4.4	0.1		10	1	1	2.5	2.5	2	2

TBPEL Monitoring Results						
	Effluent				Influent	
	NO2+ NO3	Ortho P	TKN	Tot P	TKN	Tot P
Jul-15	0.3	2.8	2	2.8	48	4.4
Aug-15	0.2	4.5	2	4.7	33	4.7
Sep-15	0.6	6.5	5	7	46	7
Oct-15	-	-	-	-	-	-
Nov-15	-	-	-	-	-	-
Dec-15	-	-	-	-	-	-
Jan-16	17.4	3.8	0.5	3.8	64	4.9
Feb-16	13.2	2.8	1	3.4	32	3.7
Mar-16	-	-	-	-	-	-
Apr-16	2.3	2.7	2	2.8	40	4.4
May-16	2	2.3	1	2.6	37	4.6
Jun-16	1.2	4.5	2	4.9	32	5.2
Jul-16	-	-	-	-	-	-
Aug-16	-	-	-	-	-	-
Sep-16	-	-	-	-	-	-
Oct-16	1.6	3.3	1.3	3.5	37.6	4
Nov-16	1.1	3.2	1.1	3.3	53.3	6.2
Dec-16	6.7	3.5	0.5	3.7	51	6.5
Jan-17	-	-	-	-	-	-
Feb-17	-	-	-	-	-	-
Mar-17	-	-	-	-	-	-
Apr-17	49.5	2.2	0.5	2.6	49.5	5.3
May-17	2.6	2.5	1.3	2.9	29.9	3.6
Jun-17	3.2	3	1.1	3.5	30	3.6
Jul-17	1.2	4.3	2.4	4.4	39.2	4.9
Aug-17	-	-	-	-	-	-
Sep-17	0.25	6.5	6.5	6.5	3.8	6.6
Oct-17	-	-	-	-	-	-
Nov-17	-	-	-	-	-	-
Dec-17	25.8	4.2	0.5	4.1	32.4	4.6
Jan-18	27.6	3.9	0.5	4.3	45.7	5
Feb-18	29.8	3.2	0.5	3.8	36.9	4.4
Mar-18	-	-	-	-	-	-
Apr-18	22.3	2.5	0.5	2.7	43	5.9
May-18	18.7	3.5	0.5	3.5	48.5	5.7
Jun-18	-	-	-	-	-	-
Jul-18	4.95	4.6	0.5	5.1	46.2	5.2
Aug-18	5	5.4	1.2	5.4	42.6	4.1
Sep-18						

## **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 30, 2018

**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.

Based on the evaluation documented in the attached memorandum dated March 25, 2014, the beneficial uses for Blue Lakes are 2B, 3D and 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.*

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.

Utah Division of Water Quality  
Wasteload Analysis  
Grantsville Wastewater Treatment Plant  
UPDES No. UT0021130

TMDL

The receiving water and downstream waterbodies are not listed as impaired for any parameters according to the 2016 303(d) list.

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.

Parameters of Concern

The potential parameters of concern identified for the discharge/receiving water were total suspended solids (TSS), dissolved oxygen (DO), BOD<sub>5</sub>, total ammonia (TAN), total phosphorus (TP), E. coli, and pH as determined in consultation with the UPDES Permit Writer.

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<sub>50</sub> (lethal concentration, 50%) percent effluent for acute toxicity and the IC<sub>25</sub> (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<sub>50</sub> is typically 100% effluent and does not need to be determined by the WLA.

**Table 1: WET Limits for IC<sub>25</sub>**

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<sub>3</sub> 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<sub>5</sub> in the effluent on the DO in the downstream receiving waters; therefore, it is presumed that secondary standards for BOD<sub>5</sub>, water quality criteria for DO, and technology based limits for TP are sufficiently protective of the receiving water.

Utah Division of Water Quality  
Wasteload Analysis  
Grantsville Wastewater Treatment Plant  
UPDES No. UT0021130

**Table 3: Water Quality Based Effluent Limits Summary**

Effluent Constituent	Acute			Chronic		
	Standard	Limit	Averaging Period	Standard	Limit	Averaging Period
Flow (MGD)		2.25	1 day		1.5	30 days
Dissolved Oxygen, Min. (mg/L)	3.0	3.0	Minimum	5.0	5.0	30 days
Ammonia (mg/L)	Varies	3.2	1 hour	Varies		30 days
Summer (Jul-Sep)					1.1	
Fall (Oct-Dec)					2.5	
Winter (Jan-Mar)					2.9	
Spring (Apr-Jun)					1.7	

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 to the receiving waters are not increasing under this permit renewal.

**Prepared by:**  
**Nicholas von Stackelberg, P.E.**  
**Standards and Technical Services Section**

Documents:

WLA Document: *grantsville\_potw\_wla\_2018-11-30.docx*  
Wasteload Analysis: *grantsville\_potw\_wla\_2018.xlsm*

References:

Holcomb, B. 2014. Memorandum regarding Blue Lakes beneficial uses dated March 25, 2014. Utah Division of Water Quality.

Utah Division of Water Quality. 2012. *Utah Wasteload Analysis Procedures Version 1.0*.

**WASTELOAD ANALYSIS [WLA]**

Date: 11/27/2018

**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)

**Utah Division of Water Quality**

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

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

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

<b>Ammonia-Total (mg/L)</b>	<b>Chronic (30-day ave)</b>			<b>Acute (1-hour ave)</b>		
<b>Season</b>	<b>Standard</b>	<b>Background</b>	<b>Limit</b>	<b>Standard</b>	<b>Background</b>	<b>Limit</b>
Summer	1.1		1.1	3.2		3.2
Fall	2.5		2.5	3.2		3.2
Winter	2.9		2.9	3.2		3.2
Spring	1.7		1.7	3.2		3.2

<b>Metals-Total Recoverable</b>	<b>Chronic (4-day ave)</b>			<b>Acute (1-hour ave)</b>		
<b>Parameter</b>	<b>Standard<sup>1</sup></b>	<b>Background</b>	<b>Limit</b>	<b>Standard<sup>1</sup></b>	<b>Background</b>	<b>Limit</b>
Aluminum (µg/L) <sup>2</sup>	N/A		NONE	750		750
Arsenic (µg/L)	150		150	340		340
Cadmium (µg/L)	0.5		0.5	5.9		5.9
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) <sup>2</sup>	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) <sup>2</sup>	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
Tributyltin (µg/L) <sup>2</sup>	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 CaCO<sub>3</sub>

2: Where the pH is equal to or greater than 7.0 and the hardness is equal to or greater than 50 ppm as CaCO<sub>3</sub> 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).



**Utah Division of Water Quality**

**Organics [Pesticides]**

Parameter	Chronic (4-day ave)		Acute (1-hour ave)	
	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**

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

**Effluent Limitation for Protection of Agriculture (Class 4 Waters)**

Parameter	Maximum Concentration		
	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				
pH:	Summer	Fall	Winter	Spring
	8.50	8.50	8.50	8.50
Beneficial use classification:	3D	3D	3D	3D
OUTPUT				
Acute:	Total ammonia nitrogen criteria (mg N/L):			
	3.203	3.203	3.203	3.203

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

INPUT				
	Summer	Fall	Winter	Spring
Temperature (deg C):	22.4	9.2	3.3	15.6
pH:	8.20	8.20	8.20	8.20
Are fish early life stages present?	No	No	No	No
OUTPUT				
Total ammonia nitrogen criteria (mg N/L):				
Chronic - Fish Early Life Stages Present:	1.078	1.793	1.793	1.675
Chronic - Fish Early Life Stages Absent:	1.078	2.534	2.912	1.675



State of Utah

GARY R. HERBERT  
Governor

SPENCER J. COX  
Lieutenant Governor

Department of  
Environmental Quality

Amanda Smith  
Executive Director

DIVISION OF WATER QUALITY  
Walter L. Baker, P.E.  
Director

**MEMORANDUM**

**TO:** All Parties Involved

**FROM:** Ben Holcomb, Biological Assessment Program Coordinator

**DATE:** March 25, 2014

**SUBJECT:** Grantsville Public Water Works Discharge

Attendance: DWQ—Ben Holcomb, Nick Von Stackelberg, Dan Griffin  
Grantsville Public Water Works—Ron Griffin

Background:

An initial review of the receiving waters for Grantsville Public Water Works (GPWW) discharge was conducted on March 24, 2014. The GPWW plant is a lagoon-style facility comprising nine treatment cells. The outfall for the discharge is located at 40.618296, -112.442805 (see GoogleEarth image). From there, the effluent flows north through a man-made ditch ~250 meters where it meets a seasonal depression-wetland (see photos). The wetland area is the southern-most component of a connected wetland-complex referred to as the "Blue Lakes". According to the wastewater operator, Ron Griffin, the Blue Lakes were created in 1948 as a Soil and Conservation District project to serve as a reservoir for irrigation water. From aerial photos, the complex consists of approximately 3-4 'lakes' that collected snowmelt, diversions from Fishing Creek, and the discharge from GPWW. The water in each ponded area was likely controlled by structures between ponds. According to Griffin, the local landowner and irrigator, Russell Johnson, breached these structures circa 2008. Since then, water no longer pools up as lakes, but flows through these areas where it is subsequently diverted into canals for irrigation. Currently, the lake areas are best described as seasonal wetlands and have shallow pools during the spring runoff season (see photos 1 & 2) and become dry shortly thereafter. As such, there is no evidence of a fish community in these wetlands. In the event these areas held water for a longer period of time, it would be difficult for fish to navigate up-gradient due to the defunct water control structures through the dikes (see photo 3 & 4). Furthermore, the water exiting 'downstream' of the Blue Lakes complex appears to be used entirely for irrigation and there is no evidence that it is connected to other water bodies (let alone waters with protective aquatic life uses), so that fish colonizing the receiving water (when it exists) would be highly unlikely.

Currently there is not a formal assessment unit associated with the discharge point; therefore there are no

formal designated aquatic life uses for the receiving water. Typically, in these instances, a default aquatic life use is assumed: 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. (Utah Code: R317-2-6). Due to the evidence that was described above, I believe the default aquatic life use (Class 3D) for the receiving water for the Grantsville WWTP discharge is correct.



Google Earth image of Grantsville treatment cells and marker of where discharge meets receiving water.





Photo 1. Image of discharge ditch looking north in the direction of flow. Note the vegetation color change from sage uplands, to tan field, and finally green-brown of seasonal wetland receiving water.



Photo 2. Image looking southeast across seasonal wetland towards discharge point. The yellow arrow is pointing at the discharge ditch as it exits the sage uplands and enters the field. The red arrow is pointing at the ditch as it meets the receiving water.





Photo 3. View from the top of dike looking south; below was once the control structure.



Photo 4. View from the top of dike looking north. Receiving water as it exits the ponded wetland unit.

## **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<sup>8</sup>. 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 further investigation into mercury and cyanide was needed.

A review of the mercury results indicate that there are only six samples, all Non-Detects and that the results are at the MRL for EPA Method 245.1 (0.0002 mg/L), which is two orders of magnitude 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 six samples, five 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 RP Outputs Table are included in this attachment.

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<sup>8</sup> See Reasonable Potential Analysis Guidance for definitions of terms

## Metals Monitoring and RP Check

[illegible]