STATE OF UTAH DIVISION OF WATER QUALITY DEPARTMENT OF ENVIRONMENTAL QUALITY SALT LAKE CITY, UTAH

UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES) PERMITS

Minor Municipal Permit No. UT0021296

In compliance with provisions of the Utah Water Quality Act, Title 19, Chapter 5, Utah Code Annotated ("UCA") 1953, as amended (the "Act"),

HUNTINGTON LAGOONS

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

HUNTINGTON CREEK,

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

This permit shall become effective on March 01, 2021

This permit expires at midnight on September 30, 2025.

Signed this 16th day of February, 2021.

Erica Brown Gaddis, PhD

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Director

DWQ-2020-022887

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I. <u>DISCHARGE LIMITATIONS AND REPORTING REQUIREMENTS</u>

A. <u>Description of Discharge Points</u>. 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 39°18'46" and longitude 110°55'15". The discharge is by pumping pipe to Huntington Creek.

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* of this permit.

2.

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

	Effluent Limitations ¹				
Parameter	Maximum	Maximum	Yearly	Daily	Daily
	Monthly Avg	Weekly Avg	Average	Minimum	Maximum
Total Flow	0.8	-	1	-	-
BOD ₅ , mg/L	45	65	-	-	-
BOD ₅ Min. % Removal	85	-	ı	-	-
TSS, mg/L	25	35	-	-	-
TSS Min. % Removal	85	-	-	-	-
Dissolved Oxygen, mg/L	-	-	ı	5.0	-
Total Ammonia (as N),					
mg/L					
Summer (Jul-Sep)	12.2	-	-	-	5.6
Fall (Oct-Dec)	11.8	-	-	-	5.7
Winter (Jan-Mar)	14.1	-	-	-	5.9
Spring (Apr-Jun)	12.5	-	-	-	6.2
TDS, mg/L	-	-	-	-	4,800
Oil & Grease, mg/L	-	-	-	-	10.0

¹ See Definitions, Part VIII, for definition of terms

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	Effluent Limitations ¹				
Parameter	Maximum	Maximum	Yearly	Daily	Daily
	Monthly Avg	Weekly Avg	Average	Minimum	Maximum
TRC, mg/L ²	-	-	ı	ı	0.4
pH, Standard Units	-	-	ı	6.5	9
E. coli, No./100mL	126	157	1	ı	-
Parameter	Maximum	Maximum	lbs. or	Daily	Daily
	Monthly Avg	Weekly Avg	Tons/Year	Minimum	Maximum
TDS, Ton/Day ³	-	-	-	-	1.0
Tons/Year	-	-	366 Tons	-	-
Total Phosphorus, lbs	-	-	563 lbs.	-	-

Self-Monitoring and Reporting Requirements ¹						
Parameter	Frequency	Sample Type	Units			
Total Flow ⁴ , ⁵	Continuous	Recorder	MGD			
BOD ₅ , Influent ⁶	Twice Monthly	Grab	mg/L			
Effluent	Twice Monthly	Grab	mg/L			
TSS, Influent ⁶	Twice Monthly	Grab	mg/L			
Effluent	Twice Monthly	Grab	mg/L			
E. coli	Twice Monthly	Grab	No./100mL			
рН	Twice Monthly	Grab	SU			
Total Ammonia (as N)	Twice Monthly	Grab	mg/L			
DO	Twice Monthly	Grab	mg/L			
TRC, mg/L, ⁷	Daily	Grab	mg/L			
Oil & Grease 8	When Sheen Observed	Grab	mg/L			
TDS, Effluent	Twice Monthly	Grab	mg/L			
TDS, Ton/Day	Annual	Calculate	Ton/day			
Selenium, mg/L ⁹	Monthly	Grab	mg/L			
Orthophosphate (as P), 10 Effluent	Monthly	Composite	mg/L			

² Analytical results less than 0.06 mg/l will not be considered out of compliance with the permit. For purposes of calculating averages and reporting on the Discharge Monitoring Report form, the following will apply:

¹⁾ analytical values less than 0.02 mg/L shall be considered zero; and

²⁾ analytical values less than 0.06 mg/L and equal to or greater than 0.02 mg/L will be recorded as measured

³ The salt loading (TDS) limit is 1 ton/day, or 366 tons/year.

⁴ Flow measurements of influent/effluent volume shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained

⁵ If the rate of discharge is controlled, the rate and duration of discharge shall be reported

⁶ In addition to monitoring the final discharge, influent samples shall be taken and analyzed for this constituent at the same frequency as required for this constituent in the discharge

⁷ Total residual chlorine monitoring frequency is Daily, but only if the facility is chlorinating the effluent during monitoring period.

⁸ Oil & Grease sampled when sheen is present or visible. If no sheen is present or visible, report NA

⁹ Selenium is being sampled in support of a TMDL that may be conducted in the future for Huntington Creek. The pollutant of concern (POC) will be monitored and reported (on a monthly basis by the facility on Discharge Monitoring Report, but will not have a limit associated with them. If the Huntington City Lagoons decides to sample more frequently for these POC's, the additional data will be welcome.

¹⁰ These reflect changes required with the adoption of UCA R317-1-3.3, Technology-based Phosphorus Effluent Limits rule.

Total Phosphorus (as P), 10			
Influent	Monthly	Composite	mg/L
Effluent	Monthly	Composite	mg/L
Total Kjeldahl Nitrogen,			
TKN (as N) 10			
Influent	Monthly	Composite	mg/L
Effluent	Monthly	Composite	mg/L
Nitrate, NO3 ¹⁰	Monthly	Composite	mg/L
Nitrite, NO2 ¹⁰	Monthly	Composite	mg/L

3. Compliance Schedule

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

4. 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 Whole Effluent Toxicity (WET) Control Guidance Document, February 15, 1991, 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.

Huntington City Lagoons is a minor facility that will be infrequently discharging a minor amount of effluent. Huntington City Lagoons has yet to discharge effluent, and is not expected to be toxic when it does. 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, entered into NetDMR no later than the 28th day of the month following the completed reporting period. The first report is due on April 28, 2021. 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

II. INDUSTRIAL PRETREATMENT PROGRAM

- A. <u>Definitions</u>. For this section the following definitions shall apply:
 - 1. *Indirect Discharge* means the introduction of pollutants into a publicly-owned treatment works (POTW) from any non-domestic source regulated under section 307 (b), (c) or (d) of the Act.
 - 2. *Interference* means a discharge which, alone or in conjunction with a discharge or discharges from other sources, both:
 - a. Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
 - b. Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.
 - 3. *Local Limit* is defined as a limit designed to prevent pass through and/or interference. And is developed in accordance with 40 CFR 403.5(c).
 - 4. Pass Through means a Discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).
 - 5. Publicly Owned Treatment Works or POTW means a treatment works as defined by section 212 of the Act, which is owned by a State or municipality (as defined by section 502(4) of the Act). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality as defined in section 502(4) of the Act, which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works.
 - 6. Significant industrial user (SIU) is defined as an industrial user discharging to a POTW that satisfies any of the following:
 - a. 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.
- 7. User or Industrial User (IU) means a source of Indirect Discharge

B. Self-Monitoring and Reporting Requirements.

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.

C. Industrial Wastes.

- 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 signification 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.

- 1. <u>General prohibition Standards</u> 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:

- 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.

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).

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.

IV. STORM WATER REQUIREMENTS.

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

V. MONITORING, RECORDING & GENERAL REPORTING REQUIREMENTS

- A. Representative Sampling. Samples taken in compliance with the monitoring requirements established under *Part I* shall be collected from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge. Samples of biosolids shall be collected at a location representative of the quality of biosolids immediately prior to the use-disposal practice.
- B. <u>Monitoring Procedures</u>. 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. <u>Penalties for Tampering.</u> 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. <u>Compliance Schedules</u>. 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.

- 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 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. <u>Inspection and Entry</u> The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:
 - 1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
 - 2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - 3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, including but

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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. <u>Duty to Comply</u>. 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. <u>Need to Halt or Reduce Activity not a Defense</u>. 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. <u>Duty to Mitigate</u>. 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. <u>Proper Operation and Maintenance</u>. 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. <u>Removed Substances</u>. 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. <u>Bypass Not Exceeding Limitations</u>. 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. <u>Prohibition of Bypass</u>.

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

- (1) Bypass was unavoidable to prevent loss of human life, personal injury, or severe property damage;
- (2) There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance, and
- (3) The permittee submitted notices as required under 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

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. <u>Effect of an upset</u>. 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. <u>Planned Changes</u>. 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. <u>Anticipated Noncompliance</u>. 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. <u>Permit Actions.</u> 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. <u>Duty to Reapply</u>. 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. <u>Duty to Provide Information</u>. 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. <u>Signatory Requirements</u>. 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 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. <u>Changes to authorization</u>. 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. <u>Certification</u>. 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. <u>Availability of Reports</u>. 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. <u>Property Rights</u>. 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. <u>Severability</u>. 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. <u>Transfers</u>. This permit may be automatically transferred to a new permittee if:
 - 1. The current permittee notifies the Director at least 20 days in advance of the proposed transfer date;

- 2. The notice includes a written agreement between the existing and new permittee's containing a specific date for transfer of permit responsibility, coverage, and liability between them; and,
- 3. The Director does not notify the existing permittee and the proposed new permittee of his or her intent to modify, or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph 2 above.
- N. State or Federal Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by *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. <u>Water Quality Reopener Provision</u>. This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations and compliance schedule, if necessary, if one or more of the following events occurs:
 - 1. Water Quality Standards for the receiving water(s) to which the permittee discharges are modified in such a manner as to require different effluent limits than contained in this permit.
 - 2. A final wasteload allocation is developed and approved by the State and/or EPA for incorporation in this permit.
 - 3. Revisions to the current CWA § 208 areawide treatment management plans or promulgations/revisions to TMDLs (40 CFR 130.7) approved by the EPA and adopted by DWQ which calls for different effluent limitations than contained in this permit.
- P. <u>Biosolids Reopener Provision</u>. 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. <u>Toxicity Limitation Reopener Provision</u>. 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
- 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 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 "LC₅₀").
- 5. "Annual Loading Cap" is the highest allowable phosphorus loading discharged over a calendar year, calculated as the sum of all the monthly loading discharges measured during a calendar year divided by the number of monthly discharges measured during that year.
- 6. "Bypass," means the diversion of waste streams from any portion of a treatment facility.
- 7. "Chronic toxicity" occurs when the IC₂₅< 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.
- 8. "IC₂₅" 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.
- 9. "Composite Samples" shall be flow proportioned. The composite sample shall, as a minimum, contain at least four (4) samples collected over the compositing period. Unless otherwise specified, the time between the collection of the first sample and the last sample shall not be less than six (6) hours nor more than 24 hours. Acceptable methods for preparation of composite samples are as follows:
 - a. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;

- b. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample, the flow rate at the time the sample was collected may be used;
- c. Constant sample volume, time interval between samples proportional to flow (i.e., sample taken every "X" gallons of flow); and,
- d. Continuous sample volume, with sample collection rate proportional to flow rate.
- 10. "CWA," means *The Federal Water Pollution Control Act*, as amended, by *The Clean Water Act of 1987*.
- 11. "Daily Maximum" (Daily Max.) is the maximum value allowable in any single sample or instantaneous measurement.
- 12. "EPA," means the United States Environmental Protection Agency.
- 13. "Director," means Director of the Division of Water Quality.
- 14. A "grab" sample, for monitoring requirements, is defined as a single "dip and take" sample collected at a representative point in the discharge stream.
- 15. An "instantaneous" measurement, for monitoring requirements, is defined as a single reading, observation, or measurement.
- 16. "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.
- 17. "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.

Castle Valley SSD Huntington Lagoons 2022 Renewal FSSOB

FACT SHEET AND STATEMENT OF BASIS HUNTINGTON LAGOONS RENEWAL PERMIT: DISCHARGE UPDES PERMIT NUMBER: UT0021296 MINOR MUNICIPAL

FACILITY CONTACTS

Person Name: Jacob Sharp, P.E.
Position: District Manager
Phone Number: (435) 381-5333

Facility Name: Huntington Lagoons

Mailing and Facility Address: Castle Valley Special Service District

PO Box 877 20 South 100 East, Castle Dale, Utah 84513

Telephone: (435) 381-5333

Actual Address: Just east of Huntington City off Hwy 10 in Emery County

DESCRIPTION OF FACILITY

CVSSD operates the Huntington City domestic wastewater treatment facility (Huntington). The facility is a six-cell, flow-thru lagoon system serving the population of Huntington City with no industrial users on the system. The first cell is the largest and includes multiple aerators followed by 5 smaller cells and 3 alternating sand filters. The outfall is located after the final lagoon cell and 3 sand filters into Huntington Creek. The facility is an intermittent discharger based on seasonal loading and precipitation events with discharges occurring 3-4 times each year on average.

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. Huntington is a minor discharger with no known industrial dischargers with a low reasonable potential for toxics to be in the effluent, therefore they are not required to monitor metals, and RP is not required to be run on their effluent at this time. If and when this changes, monitoring for metals other than selenium may be added to the permit. Selenium monitoring was added during the 2014 permit renewal after Huntington Creek was identified on the 303(d) list for selenium.

2. TBPEL Rule

Water Quality adopted UAC R317-1-3.3, Technology-Based Phosphorus Effluent Limit (TBPEL) Rule in 2014. No TBPEL will be instituted for discharging treatment lagoons. Instead, each discharging lagoon will be 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. A cap of 125% of the current annual total phosphorus load will be established and referred to as phosphorus loading cap. 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 load cap shall become effective July 1, 2018.

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, nitratenitrite and total Kjeldahl nitrogen (an 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.

The phosphorus annual loading cap is defined as

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

The reported monthly loading is calculated as shown here;

Monthyl Mass Loading,
$$\frac{lbs}{Month}$$

$$= (Ave\ Flow)*(Ave\ Concetration)*\left(8.34\frac{lbs}{gal}\right)*\left(\frac{Days\ Discharged}{Month}\right)$$

The annual total phosphorus loading

Annual Mass Loading,
$$lbs = Sum \left(Monthyl Mass Loading, \frac{lbs}{Month}\right)$$

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. Castle Dale's current annual total phosphorus load was calculated based on the data reported on your monthly discharge monitoring reports. The Castle Dale phosphorus loading cap is 563 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:

	Maximum Monthly Avg	Maximum Weekly Avg	lbs./Year	Daily Minimum	Daily Maximum
Total Phosphorus, lbs	-	1	563	-	-

DISCHARGE

DESCRIPTION OF DISCHARGE

Huntington Lagoons has been reporting self-monitoring results on Discharge Monitoring Reports on a monthly basis. Huntington Lagoons discharges only a few times each year. The reported monitoring results

for 2017 through 2019 have been summarized in attachment 2 of this FSSOB. There were no permit violations during that time.

<u>Outfall</u> <u>Description of Discharge Point</u>

001 Located at latitude 39°18'46" and longitude 110°55'15".

The discharge is by pipe to Huntington Creek.

RECEIVING WATERS AND STREAM CLASSIFICATION

The discharge flows into Huntington Creek which is tributary to Cottonwood Creek, which drains to the San Rafael River and the Colorado River. Huntington Creek is a Class 2B, 3C 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 3C -- Protected for nongame fish and other aquatic life, 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), 5-day biochemical oxygen demand (BOD5), E. coli, pH and percent removal for TSS and BOD5 are based on current Utah Secondary Treatment Standards, UAC R317-1-3.2. The alternative effluent limits and percent removal requirements for TSS and BOD5 were previously requested by CVSSD and subsequently granted by the Utah Water Quality Board in 2001 and remains unchanged. Seasonal ammonia as nitrogen (NH3-N), total residual chlorine (TRC), and dissolved oxygen (DO), are water quality based, and were derived by the waste load analysis attached to this fact sheet statement of basis. Flow limitations were developed from information included in the permit application.

The 2010 303(d) list identified Huntington Creek as impaired for selenium. As a result of the 303(d) listing, monitoring of selenium in the effluent was added to the permit during the 2014 renewal and will remain in the permit for this renewal.

The TDS concentration limit of 4,800 mg/L is based on the approved Total Maximum Daily Load (TMDL) study for the San Rafael River watershed (which includes Huntington Creek), in which a site specific criterion was developed for TDS and can be found in Table A-12 of the document entitled, "Price River, San Rafael River, and Muddy Creek TMDLs for Total Dissolved Solids, West Colorado Watershed Management Unit, Utah", EPA Approval Date: August 4, 2004.

Total dissolved solids (TDS) limitations are based upon Utah Water Quality Standards for concentration values and the Colorado River Basin Salinity Control Forum (CRBSCF) for mass loading values when applicable as authorized in *UAC R317-2-4*. CRBSCF has established a policy for the reasonable increase of salinity for municipal discharges to any portion of the Colorado River stream system that has an impact on the lower main stem. The CRBSCF Policy entitled "NPDES Permit Program Policy for Implementation of Colorado River Salinity Standards" (Policy), with the most current version dated October 2020, states that the incremental increase in salinity shall be 400 mg/L or less, which is considered to be a reasonable incremental increase above the flow weighted average salinity of the intake water supply. The permittee previously requested a salt loading (TDS) of 1 ton/day, or 366 tons/year in lieu of the requirement that the effluent not exceeding the culinary source water intake by more than 400 mg/L of TDS, which is in allowable under CRBSCF Policy.

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 check was performed on the pollutants of concern to determine if there was enough data to perform a reasonable potential analysis on the outfall. Huntington is a minor discharger with no known industrial dischargers and a low reasonable potential for toxics to be present in the effluent, therefore they have not been required to monitor metals, and RP is not required to be run on their effluent at this time. If and when this changes, metals monitoring may be added to the permit.

The permit limitations are

	Effluent Limitations ¹				
Parameter	Maximum	Maximum	Yearly	Daily	Daily
	Monthly Avg	Weekly Avg	Average	Minimum	Maximum
Total Flow	0.8	-	-	-	(X.X)
BOD ₅ , mg/L	45	65	-	-	-
BOD ₅ Min. % Removal	65	-	ı	-	-
TSS, mg/L	45	65	-	-	-
TSS Min. % Removal	65	-	-	-	-
Dissolved Oxygen, mg/L	-	-	ı	5.0	-
Total Ammonia (as N),					
mg/L					
Summer (Jul-Sep)	12.2	-	-	-	5.6
Fall (Oct-Dec)	11.8	-	-	-	5.7
Winter (Jan-Mar)	14.1	-	-	-	5.9
Spring (Apr-Jun)	12.5	-	-	-	6.2
TDS, mg/L	-	-	-	-	4,800
Oil & Grease, mg/L	-	-	-	-	10.0
TRC, mg/L ²	-	-	-	-	0.4
pH, Standard Units	-	-	-	6.5	9
E. coli, No./100mL	126	158	ı	ı	-
Mass Loading Limits					
Parameter	Maximum	Maximum	lbs./Year	Daily	Daily
	Monthly Avg	Weekly Avg	108./ 1 ear	Minimum	Maximum
TDS, Ton/Day ³	-	-	-	-	1.0
Tons/Year	-	-	366 Tons	-	-
Total Phosphorus, lbs	-	-	563 lbs	-	-

¹ See Definitions, Part VIII, for definition of terms

² Analytical results less than 0.06 mg/l will not be considered out of compliance with the permit. For purposes of calculating averages and reporting on the Discharge Monitoring Report form, the following will apply:

¹⁾ analytical values less than 0.02 mg/L shall be considered zero; and

²⁾ analytical values less than $0.06\ mg/L$ and equal to or greater than $0.02\ mg/L$ will be recorded as measured

³ The salt loading (TDS) limit is 1 ton/day, or 366 tons/year.

SELF-MONITORING AND REPORTING REQUIREMENTS

The following self-monitoring requirements are updated from 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 ¹						
Parameter	Frequency	Sample Type	Units			
Total Flow ⁴ , ⁵	Continuous	Recorder	MGD			
BOD ₅ , Influent ⁶	Twice Monthly	Grab	mg/L			
Effluent	Twice Monthly	Grab	mg/L			
TSS, Influent ⁶	Twice Monthly	Grab	mg/L			
Effluent	Twice Monthly	Grab	mg/L			
E. coli	Twice Monthly	Grab	No./100mL			
рН	Twice Monthly	Grab	SU			
Total Ammonia (as N)	How Often?	Grab	mg/L			
DO	Twice Monthly	Grab	mg/L			
TRC, mg/L, ⁷	Daily, if chlorinating	Grab	mg/L			
Oil & Grease 8	When Sheen Observed	Visual, Grab	mg/L			
TDS, Effluent	Twice Monthly	Grab	mg/L			
TDS, Ton/day	Annually	Calculate	Ton/Day			
Selenium, mg/L ⁹	Monthly	Grab	mg/L			
Orthophosphate (as P), 10 Effluent	Monthly	Composite	mg/L			
Total Phosphorus (as P), 10						
Influent	Monthly	Composite	mg/L			
Effluent	Monthly	Composite	mg/L			
Total Kjeldahl Nitrogen TKN (as N), 10						
Influent	Monthly	Composite	mg/L			
Effluent	Monthly	Composite	mg/L			
Nitrate, NO3 ¹⁰	Monthly	Composite	mg/L			
Nitrite, NO2 ¹⁰	Monthly	Composite	mg/L			

⁴ Flow measurements of influent/effluent volume shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained

⁵ If the rate of discharge is controlled, the rate and duration of discharge shall be reported

⁶ In addition to monitoring the final discharge, influent samples shall be taken and analyzed for this constituent at the same frequency as required for this constituent in the discharge

⁷ Total residual chlorine monitoring frequency is Daily, but only if the facility is chlorinating the effluent during monitoring period

⁸ Oil & Grease sampled when sheen is present or visible. If no sheen is present or visible, report NA

⁹ Selenium is being sampled in support of a TMDL that may be conducted in the future for Huntington Creek. The pollutant of concern (POC) will be monitored and reported (on a monthly basis by the facility on Discharge Monitoring Report, but will not have a limit associated with them. If the Huntington City Lagoons decides to sample more frequently for these POC's, the additional data will be welcome

¹⁰ These reflect changes required with the adoption of UCA R317-1-3.3, Technology-based Phosphorus Effluent Limits rule

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

Separate storm water permits may be required based on the types of activities occurring on site.

Permit coverage under the Construction General Storm Water Permit (CGP) is required for any construction at the facility which disturb an acre or more, or is part of a common plan of development or sale that is an acre or greater. A Notice of Intent (NOI) is required to obtain a construction storm water permit prior to the period of construction.

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

PRETREATMENT REQUIREMENTS

The permittee has not been designated for pretreatment program development because it does not meet conditions which necessitate a full program. 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 Utah Pollutant Discharge Elimination System Permit and Enforcement Guidance Document for Whole Effluent Toxicity Control (biomonitoring), dated February 2018. Authority to require effluent biomonitoring is provided in Permit Conditions, UAC R317-8-4.2, Permit Provisions, UAC R317-8-5.3 and Water Quality Standards, UAC R317-2-5 and R317 -2-7.2.

The permittee is a minor municipal facility that will be infrequently discharging a minimal amount of effluent, in which toxicity is neither an existing concern, nor likely to be present. Based on these considerations there is no reasonable potential for toxicity in the permittee's discharge (per State of Utah Permitting and Enforcement Guidance Document for WET Control). As such, there will be no numerical WET limitations or WET monitoring requirements in this permit. However, the permit will contain a toxicity limitation re-opener provision that allows for modification of the permit should additional information indicate the presence of toxicity in the discharge.

PERMIT DURATION

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

Drafted by
Daniel Griffin, Discharge, Biosolids, Reasonable Potential Analysis
Jennifer Robinson, Pretreatment
Lonnie Shull, Biomonitoring
Christopher Shope, Wasteload Analysis
Utah Division of Water Quality, (801) 536-4300

PUBLIC NOTICE

Began: Month Day, 2020 Ended: Month Day, 2020

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 Emery County Progress.

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

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

No Comments were received regarding this permit.

DWQ-2020-022885

Huntington Lagoons FSSOB UT0021296 Page 8

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ATTACHMENT 1

Industrial Waste Survey



Industrial Pretreatment Wastewater Survey

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

foam, floaties or unusual colors

plugged collection lines caused by grease, sand, flour, etc.

discharging excessive suspended solids, even in the winter

smells unusually bad

waste treatment facility doesn't seem to be treating the waste right

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

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

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

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

2. is subject to Federal Categorical Pretreatment Standards;

Examples: metal plating, cleaning or coating of metals, blueing of metals, aluminum extruding,

circuit board manufacturing, tanning animal skins, pesticide formulating or

packaging, and pharmaceutical manufacturing or packaging,

3. is a concern to the POTW.

Examples: septage hauler, restaurant and food service, car wash, hospital, photo lab, carpet

cleaner, commercial laundry.

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

- 1. A discharge which creates a fire or explosion hazard in the collection system.
- 2. A discharge which creates toxic gases, vapor or fumes in the collection system.
- 3. A discharge of solids or thick liquids which creates flow obstructions in the collection system.
- 4. An acidic discharge (low pH) which causes corrosive damage to the collection system.
- 5. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause problems in the collection system or at the waste treatment facility.
- 6. Waste haulers are prohibited from discharging without permission. (No midnight dumping!)

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

An Industrial Waste Survey consists of:

Step 1: Identify Industrial Users

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

Sources for the list:

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

Split the list into two groups:

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

Step 2: Preliminary Inspection

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

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

Step 3: Informing the State

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

Jennifer Robinson

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

Phone: (801) 536-4383 Fax: (801) 536-4301

E-mail: jenrobinson@utah.gov

PRELIMINARY INSPECTION FORM INSPECTION DATE ____/

Name of Business Address	Person ContactedPhone Number
Description of Business	-
Principal product or service:	
Raw Materials used:	
Production process is: [] Batch [] Co	ontinuous [] Both
Is production subject to seasonal variation If yes, briefly describe seasonal production	
This facility generates the following types of	of wastes (check all that apply):
1. [] Domestic wastes	(Restrooms, employee showers, etc.)
2. [] Cooling water, non-contact	3. [] Boiler/Tower blowdown
4. [] Cooling water, contact	5. [] Process
6. [] Equipment/Facility washdown	7. [] Air Pollution Control Unit
8. [] Storm water runoff to sewer	9. [] Other describe
Wastes are discharged to (check all that ap	ply):
[] Sanitary sewer [Storm sewer
[] Surface water [Ground water
[] Waste haulers	Evaporation
[] Other (describe)	
Name of waste hauler(s), if used	
Is a grease trap installed? Yes No	
Is it operational? Yes No	
Does the business discharge a lot of process	s wastewater?
• More than 5% of the flow to the wa	
• More than 25,000 gallons per work	

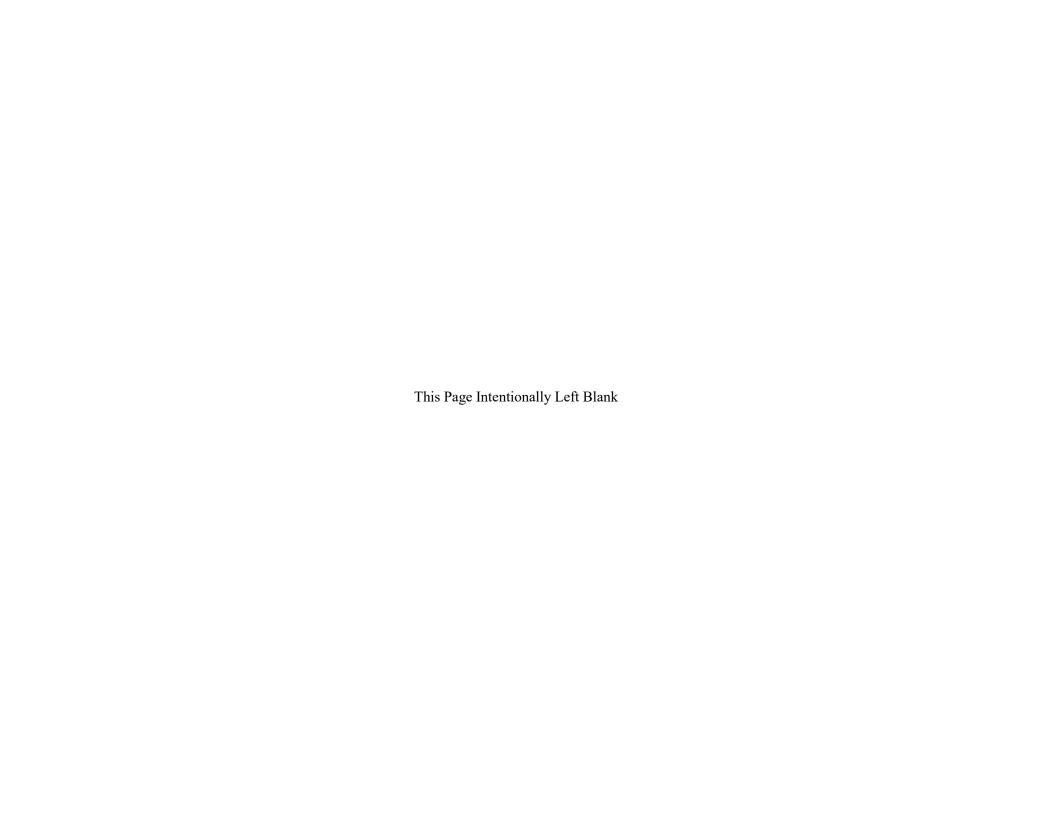
Does the business do any of the following:	
 Adhesives Aluminum Forming Battery Manufacturing Copper Forming Electric & Electronic Components Explosives Manufacturing Foundries Inorganic Chemicals Mfg. or Packaging Industrial Porcelain Ceramic Manufacturing Iron & Steel Metal Finishing, Coating or Cleaning Mining Nonferrous Metals Manufacturing Organic Chemicals Manufacturing or Packaging Paint & Ink Manufacturing Pesticides Formulating or Packaging Petroleum Refining Pharmaceuticals Manufacturing or Packaging Plastics Manufacturing Rubber Manufacturing Soaps & Detergents Manufacturing Steam Electric Generation Tanning Animal Skins Textile Mills Are any process changes or expansions planned during If yes, attach a separate sheet to this form describing th	•
expansions.	1 8
	Inspector
Please send a copy of the preliminary inspection form (Waste Treatment Facility both sides) to:

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

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

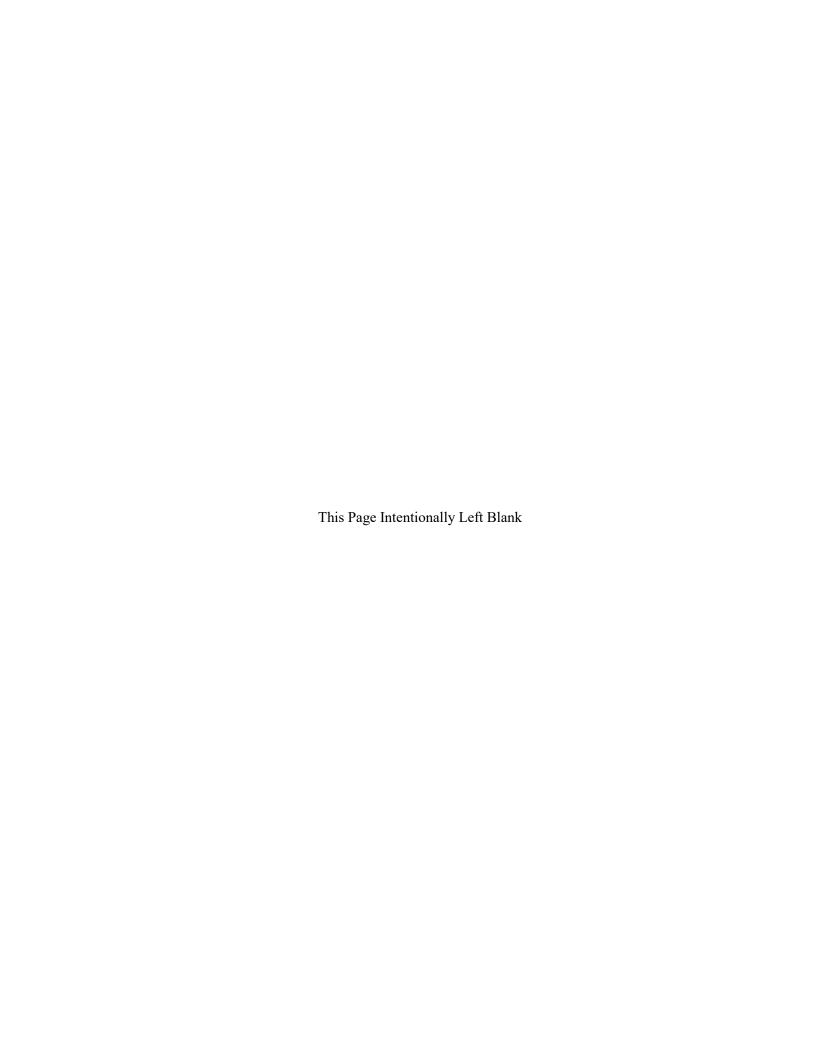
E-Mail:

	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							



ATTACHMENT 2

Effluent Monitoring Data



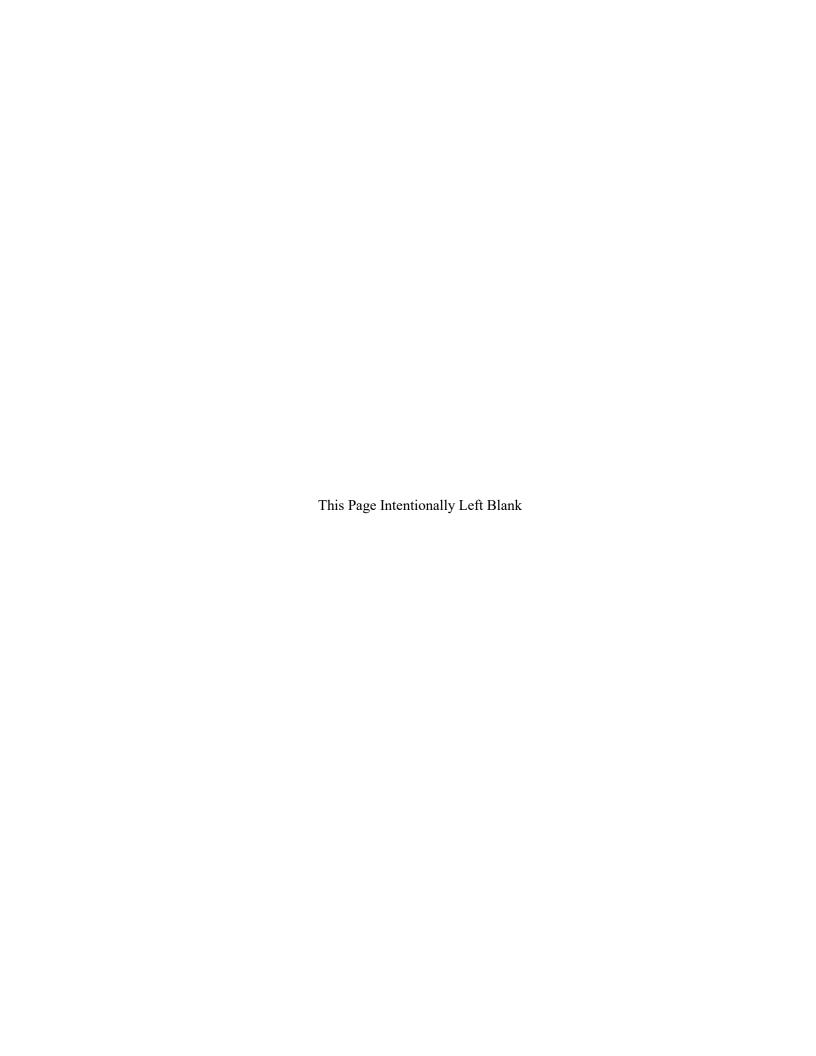
Effluent Monitoring Data.

	Flo	w	CI	BOD .	1	TSS	р	Н	E. ce	oli	DO	O & G
	Chronic	Acute	Acute	Chronic	Acute	Chronic	Min	Max	Chronic	Acute	Min	Acute
Jan-17	0	0										
Feb-17	0	0										
Mar-17	0.219	0.4	12	11.5	35	34	7.8	7.9	30.45	39.8	4.54	0
Apr-17	0.186	0.6	5	5	47	44	7.4	7.5	41.2	43.7	5.34	0
May-17	0	0										
Jun-17	0	0										
Jul-17	0	0										
Aug-17	0.258	0.4	8	6.5	38	34	7.9	7.9	35.9	50.4	5	0
Sep-17	0.113	0.2	5	5	38	34	7.9	8.1	40.5	46.5	5	0
Oct-17	0	0										
Nov-17	0	0										
Dec-17	0	0										
Jan-18	0	0										
Feb-18	0	0										
Mar-18	0	0										
Apr-18	0	0										
May-18	0.129	0.4	5	5	52	31.5	7.8	7.9	124.05	248.1	5.24	0
Jun-18	0	0										
Jul-18	0	0										
Aug-18	0	0										
Sep-18	0	0										
Oct-18	0	0										
Nov-18	0.018	0.4	13	12	47	43	7.8	8	157.8	260.3	6.48	0
Dec-18	0	0										
Jan-19	0	0										
Feb-19	0	0										
Mar-19	0.27	0.6	10	7.5	42	27.5	7.1	8.6	59.4	101.9	6.41	0
Apr-19	0.293	0.4	5	5	43	39	7.8	7.9	61.7	66.9	5	0
May-19	0	0										
Jun-19	0	0										
Jul-19	0	0										
Aug-19	0	0	<u> </u>		102					60.0		
Sep-19	0.267	0.4	5	5	103	72	7.6	7.6	56.6	63.3	6.94	0
Oct-19	0	0	<u> </u>									
Nov-19	0	0	<u> </u>									
Dec-19	0	0			0	0.7	0.4	0.4	22.4	20.7	6.40	0
Jan-20	0.28	0.6	5	5	9	8.5	8.4	8.4	22.4	32.7	6.49	0
Feb-20	0	0	-				-					-
Mar-20	0	0	 				 					-
Apr-20	0 266	0	<i>E</i>	F	50	50	7.7	7.0	(0.6	00.7	(00	0
May-20	0.266	0.4	5	5	59	59	7.7	7.9	68.6	98.7	6.89	0
Jun-20	0	0	1				 					1
Jul-20	0	0	1				 					1
Aug-20	0	0	 				-					
Sep-20	0	0	İ				l					l

	Selenium	Tot P	Ortho P	Tot P,	Amı	nonia,	NH3 + NH2,	TKN,
	Acute	Chronic	Chronic	Load	Acute	Chronic	Chronic	Chronic
Jan-17								
Feb-17								
Mar-17	0.0049	1.55	1		1.7	1.6	6.96	6.1
Apr-17	0.004	1.9	1.2		2.7	1.9	4.05	4.8
May-17								
Jun-17								
Jul-17								
Aug-17	0.0069	1.4	0.81		0.8	0.5	5.6	6.6
Sep-17	0.0057	1.3	0.875		0.6	0.5	2.22	4.25
Oct-17								
Nov-17								
Dec-17								
Jan-18								
Feb-18								
Mar-18								
Apr-18								
May-18	0.0052				0.4	0.3		
Jun-18	***************************************							
Jul-18								
Aug-18								
Sep-18								
Oct-18								
Nov-18	0.0043	1.6	0.68		1.2	0.85	2.5	9
Dec-18	010010		0.00	100.9		0.00		
Jan-19								
Feb-19								
Mar-19	0.0029	1.8	1.3		8.4	7.1	2.3	11.6
Apr-19	0.0035	1.7	1.4		3.4	2.5	6.5	6
May-19	010000							
Jun-19								
Jul-19								
Aug-19								
Sep-19	0.004	1.45	1.1		0.2	0.2	2.6	4.4
Oct-19	-						-	
Nov-19								
Dec-19				121				
Jan-20	0.0036	1.6	1.2			4.7	0	7.6
Feb-20								
Mar-20								
Apr-20								
May-20	0.0008	1.9	1.3			0.6	10.7	3.75
Jun-20								
Jul-20								
Aug-20								
Sep-20								
Jan-20	0.0036	1.6	1.2			4.7	0	7.6
Feb-20								

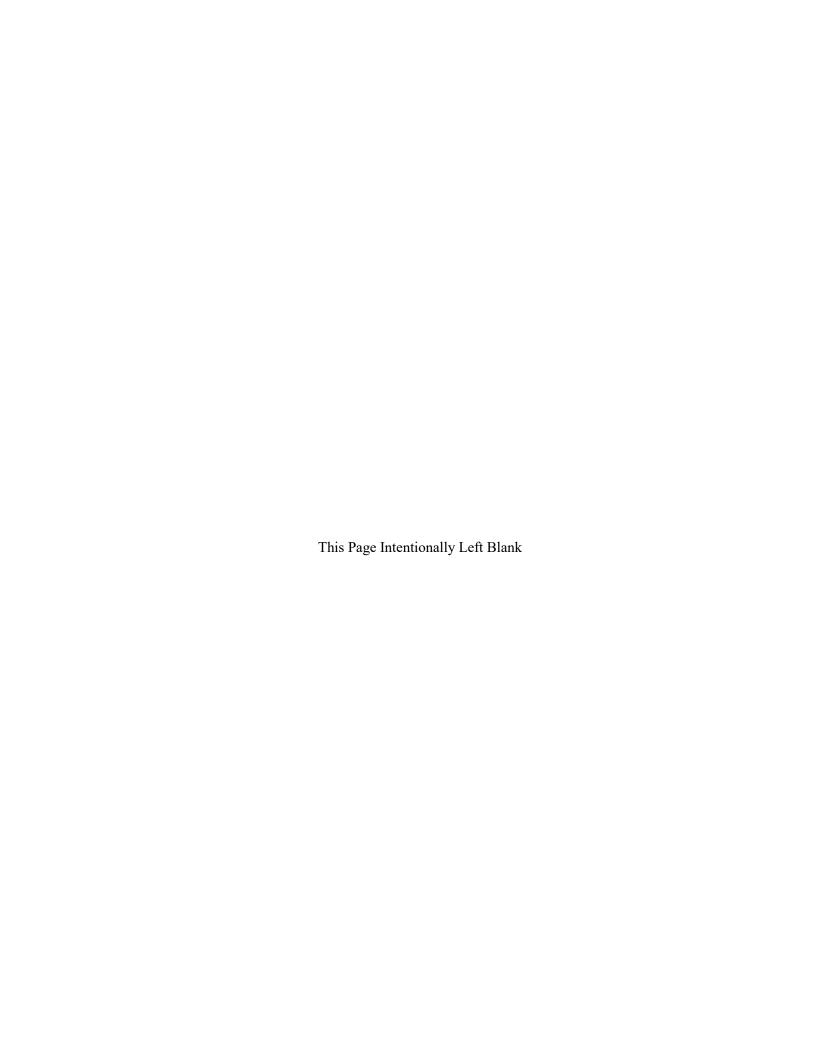
TDS Loading

Month		TDS	
Limit	4800	103	
Units	mg/L	ton/d	kg/d
Jan-17	mg/L	ton/u	Kg/U
Feb-17			
Mar-17	2240	2.06	2684.72
	3240	2.96 2.38	2158.66
Apr-17	3070	2.30	2138.00
May-17			
Jun-17 Jul-17			
	4440	4.70	1225 16
Aug-17	4440	4.78	4335.46
Sep-17	4460	2.08	1886.56
Oct-17			
Nov-17			
Dec-17			
Jan-18			
Feb-18			
Mar-18			
Apr-18			
May-18	3800	2.04	1850.28
Jun-18			
Jul-18			
Aug-18			
Sep-18			
Oct-18			
Nov-18	3990	2.95	2675.65
Dec-18			
Jan-19			
Feb-19			
Mar-19	2900	3.04	2757.28
Apr-19	2160	2.64	2394.48
May-19			
Jun-19			
Jul-19			
Aug-19			
Sep-19	3300	3.67	3328.69
Oct-19			
Nov-19			
Dec-19			
Jan-20	3620	4.04	3664.28
Feb-20			
Mar-20			
Apr-20			
May-20	3150	3.38	3065.66
Jun-20			
Jul-20			
Aug-20			
Sep-20			
~ - P 20		<u> </u>	



ATTACHMENT 3

Wasteload Analysis



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

Date: October 16, 2020

Prepared by: Christopher L. Shope

Standards and Technical Services

Facility: Huntington Wastewater Treatment Facility

Castle Valley Special Service District

UPDES Permit No. UT0021296

Receiving water: Huntington Creek (2B, 3C, 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: Huntington Creek (Stream Discharge) → Cottonwood Creek → San Rafael River → Colorado River

0.9 MGD maximum daily design discharge, 0.4 MGD maximum monthly design discharge

Receiving Water

Per UAC R317-2-13.1(b), the designated beneficial uses for Huntington Creek and tributaries, from the confluence with Cottonwood Creek to Highway U-10 crossing are 2B, 3C 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 3C Protected for nongame fish and other aquatic life, including the necessary aquatic organisms in their food chain.

• Class 4 - Protected for agricultural uses including irrigation of crops and stock watering. Site-specific total dissolved solids (TDS) criteria are associated with this use. Huntington Creek and tributaries from the confluence with Cottonwood Creek to Highway U-10 is 4,800 mg/l total dissolved solids.

Typically, the critical flow for the wasteload analysis is considered the lowest stream flow for seven consecutive days with a ten year return frequency (7Q10). Flow data was insufficient to calculate the annual or seasonal 7Q10 values. Due to a lack of flow records for Huntington Creek, the seasonal 20th percentile flow measurements taken immediately upstream of the outfall were calculated to estimate the critical flow in the receiving water (Table 1). Results were calculated using data from DWQ monitoring station 4930520 HUNTINGTON CREEK ABOVE HUNTINGTON LAGOONS OUTFALL for the period 1978-2019.

Table 1.Seasonal Flow Data at MLID 4930520

Season	20 th percentile Flow Data (cfs)
Summer	1.30
Fall	2.00
Winter	2.00
Spring	1.60
Annual Overall	1.60

Ambient receiving water quality was characterized using data from DWQ monitoring station 4930520 HUNTINGTON CREEK ABOVE HUNTINGTON LAGOONS OUTFALL for the same period (1978-2019). The average seasonal value was calculated for each constituent with available data in the receiving water. Effluent parameters were characterized using data from the Discharge Monitoring Report (DMR) at monitoring site 4930510 HUNTINGTON LAGOONS OUTFALL.

Total Maximum Daily Load (TMDL)

According to the Utah's 2016 303(d) Water Quality Assessment Report dated December 7, 2016, the receiving water for the discharge, Huntington Creek (UT14060009-010_00) is impaired for dissolved selenium. The San Rafael River downstream of the confluence with Cottonwood Creek is listed as impaired for benthic macroinvertebrates. A site specific standard for total dissolved solids was adopted for Huntington Creek to address the impairment. The site specific criterion is based upon the EPA approved Total Maximum Daily Load (TMDL) Price River, San Rafael River, and Muddy Creek TMDLs for Total Dissolved Solids, West Colorado Watershed Management Unit, Utah (MFG Inc., 2004). The standard is as follows per UAC R317-2-14.1, Footnote (4).

Huntington Creek and tributaries from the confluence with Cottonwood Creek to Highway U-10 is 4,800 mg/l total dissolved solids.

Mixing Zone

The maximum allowable mixing zone is 15 minutes of travel time for acute conditions, not to exceed 50% of stream width, and for chronic conditions is 2500 ft, per UAC R317-2-5. Water

Utah Division of Water Quality Wasteload Analysis Autoliv ASP Inc., UPDES Permit No. UT0024911

quality standards must be met at the end of the mixing zone.

The actual length of the mixing zone was not determined; however, it was presumed to remain within the maximum allowable mixing zone dimensions. Acute limits were calculated using 50% of the seasonal critical low flow.

Parameters of Concern

The potential parameters of concern identified for the discharge/receiving water were total suspended solids (TSS), dissolved oxygen (DO), BOD5, total phosphorus (TP), total nitrogen (TN), total ammonia (TAN), E. coli, pH, and total residual chlorine (TRC) 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_{50} (lethal concentration, 50%) percent effluent for acute toxicity and the IC_{25} (inhibition concentration, 25%) percent effluent for chronic toxicity, as determined by the WET test, needs to be below the WET limits, as determined by the WLA. The WET limit for LC_{50} is typically 100% effluent and does not need to be determined by the WLA.

Table 2: WET Limits for IC₂₅

Outfall	Percent Effluent
Outfall 001	51.7%

Wasteload Allocation Methods

Effluent limits were determined for conservative constituents using a simple mass balance mixing analysis (UDWQ, 2012). The mass balance analysis is summarized in the Wasteload Addendums.

The water quality standard for chronic ammonia toxicity is dependent on temperature and pH, and the water quality standard for acute ammonia toxicity is dependent on pH. The AMMTOX Model developed by University of Colorado and adapted by Utah DWQ and EPA Region VIII was used to determine ammonia effluent limits (Lewis et al., 2002). The analysis is summarized in the Wasteload Addendum.

The effluent limits for DO and BOD₅ in order to meet minimum DO criteria in the receiving water was evaluated using the Utah River Model. The analysis is summarized in the Wasteload Addendum.

The limits for total residual chlorine were determined assuming a decay rate of 32 /day (at 20 °C) and a travel time of 25 minutes; 10 minutes in the outlet pipe prior to discharge to Huntington Creek (approximately 500 linear feet at 1.0 feet per second velocity) and 15 minutes in the mixing zone. The analysis for TRC is summarized in the Wasteload Addendum.

Table 3: Water Quality Based Effluent Limits Summary

Effluent Constituent		Acu	ite	Chronic			
Efficient Constituent	Standard	Limit	Averaging Period	Standard	Limit	Averaging Period	
Flow (MGD)		0.9	1 day		0.34	30 days	
Ammonia (mg/L)							
Summer (Jul-Sep)	3.6	12.2		1.3	5.6		
Fall (Oct-Dec)	3.6	11.8	1 hour	2.0	5.7	30 days	
Winter (Jan-Mar)	3.6	14.1		2.1	5.9		
Spring (Apr-Jun)	3.6	12.5		2.0	6.2		
BOD ₅ (mg/L)	N/A	65	7 days	N/A	45	30 days	
Dissolved Oxygen (mg/L)	3.0	5.0	Minimum	5.0	5.0	30 days	
Total Dissolved Solids (mg/L)	4,800	4,800	Maximum				
Total Residual Chlorine (mg/L)	0.019	0.40	1 hour	0.011	0.44	4 days	

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 facility. The proposed permit is a simple renewal of an existing UPDES permit. No increase in effluent flow or concentration of pollutants over those authorized in the existing permit is being requested.

Documents:

WLA Document: Huntington POTW WLA 2020.docx

Wasteload Analysis and Addendums: Huntington POTW WLA 2020.xlsm

References:

Lewis, B., J. Saunders, and M. Murphy. 2002. Ammonia Toxicity Model (AMMTOX, Version2): A Tool for Determining Effluent Ammonia Limits. University of Colorado, Center for Limnology.

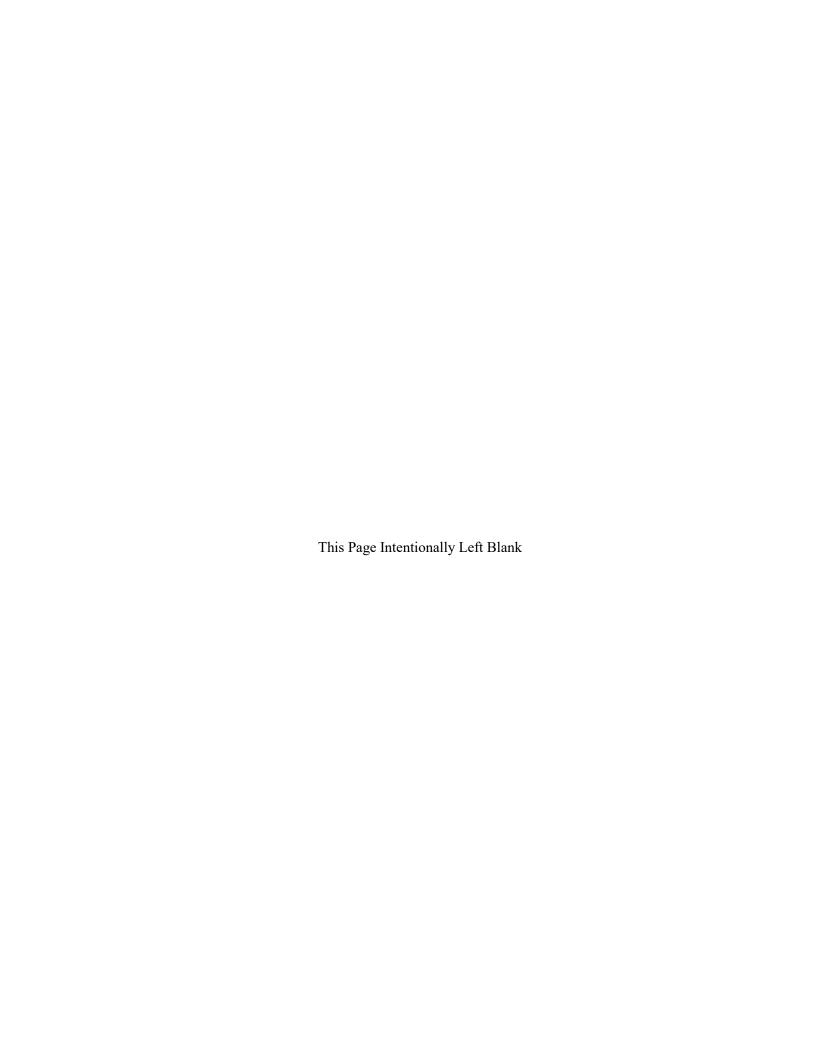
MFG Inc. 2004. Price River, San Rafael River, and Muddy Creek TMDLs for Total Dissolved Solids, West Colorado Watershed Management Unit, Utah. Utah Division of Water Quality.

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

DWQ-2020-022890

ATTACHMENT 4

Reasonable Potential Analysis



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 Analysis¹¹. 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.

Huntington is a minor discharger with no known industrial dischargers with a low reasonable potential for toxics to be in the effluent, therefore they are not required to monitor metals, and RP is not required to be run on their effluent at this time. If and when this changes, metals monitoring may be added to the permit.

¹¹ See Reasonable Potential Analysis Guidance for definitions of terms