Official Draft Public Notice Version **February 23, 2026**
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STATE OF UTAH
DIVISION OF WATER QUALITY
DEPARTMENT OF ENVIRONMENTAL QUALITY
SALT LAKE CITY, UTAH

UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES) PERMITS

Minor Municipal Permit No. **UT0020931**

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

CITY OF CORINNE

is hereby authorized to discharge from

CORINNE WASTEWATER LAGOON SYSTEM

to receiving waters named **BEAR RIVER**,

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

This permit shall become effective on June 1, 2026.

This permit expires at midnight on May 31, 2031.

Signed this XXth day of Month, 20XX.

_____
Candice A. Hasenyager, P.E.
Director

DWQ-2026-000212

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I. DISCHARGE LIMITATIONS AND REPORTING REQUIREMENTS

A. Description of Discharge Points.

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

Outfall Number	Location of Discharge Outfall
001	Located at latitude 41°32'13.7" and longitude 112°06'39.9". The Corinne Wastewater Lagoon System is located approximately ½ mile south of the City of Corinne on the west side of the Bear River. The discharge is from a twelve-inch corrugated metal pipe discharging directly to the Bear River.

Outfall Number	Location of Effluent Reuse Discharge Outfall
001D	Located at latitude 41°32'12.5" and longitude 112°06'41.7". The discharge from this location flows into a retention ditch and then into a holding pond on the adjacent farmer's property for land disposal.

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 at Outfall 001 or 001D as defined in Part VIII.

2. Authorized Discharge:

   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:

Outfall 001 **Effluent Limitations**[a][b][c]						
Parameter	Maximum Monthly Avg	Maximum Weekly Avg	Daily Minimum	Daily Maximum	Yearly Maximum	Units
Total Flow	0.07	--	--	--	--	(MGD)
BOD_5[d]	25	35	--	--	--	mg/L
BOD_5 Min. % Removal	85	--	--	--	--	%
TSS[d]	25	35	--	--	--	mg/L
TSS Min. % Removal	85	--	--	--	--	%
TDS	--	--	--	1,200	--	mg/L
DO	--	--	4.0	--	--	mg/L
E. coli	126	158	--	--	--	No./100ml
Total Phosphorus (as P)[e]	--	--	--	--	558	lbs/year
pH	--	--	6.5	9	--	SU

Outfall 001 **Self-Monitoring and Reporting Requirements**[a][b]			
Parameter	Frequency	Sample Type	Units
Total Flow[f][g]	Continuous	Recorder	MGD
BOD_5[d] Influent Effluent	 Monthly Monthly	 Composite Composite	 mg/L mg/L
TSS[d] Influent Effluent	 Monthly Monthly	 Composite Composite	 mg/L mg/L
TDS Influent Effluent	 Monthly Monthly	 Composite Composite	 mg/L mg/L
E. coli	Monthly	Grab	No./100mL
pH	Monthly	Grab	SU
DO	Monthly	Grab	mg/L
Oil & Grease[h]	When Sheen Observed	Grab	mg/L
Orthophosphate (as P)[e]	Monthly	Composite	mg/L
Total Phosphorus (as P)[d][e] Influent Effluent	 Monthly Monthly	 Composite Composite	 mg/L mg/L
Total Kjeldahl Nitrogen TKN (as N) [d][e] Influent Effluent	 Monthly Monthly	 Composite Composite	 mg/L mg/L
Nitrate, NO3[e]	Monthly	Composite	mg/L
Nitrite, NO2[e]	Monthly	Composite	mg/L

Metals[(d)(i)(j)(k)] Influent Effluent	 Quarterly Quarterly	 Composite Composite	 mg/L mg/L
Organic Toxics[(d)] Influent Effluent	 2nd and 4th Years 2nd and 4th Years	 Grab Grab	 mg/L mg/L

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

Outfall 001D **Type II Land Disposal Effluent Limitations[(a)(b)(c)(l)]**					
Parameter	Maximum Monthly Avg	Maximum Weekly Avg	Daily Minimum	Daily Maximum	Units
BOD_5[(m)]	25	35	--	--	mg/L
TSS[(m)]	25	35	--	--	mg/L
E. coli	--	158	--	500	No./100mL
pH[(m)]	--	--	6.5	9	SU

Outfall 001D **Self-Monitoring and Reporting Requirements[(a)(b)(l)]**			
Parameter	Frequency	Sample Type	Units
Applied Flow[(f)(g)]	Continuous	Recorder	MGD
Irrigated Acreage	Monthly	Estimated	Acres
BOD_5[(d)]	Monthly	Composite	mg/L
TSS[(d)]	Monthly	Composite	mg/L
TDS[(d)]	Monthly	Composite	mg/L
E. coli	Monthly	Grab	No./100mL
pH	Monthly	Grab	SU
Total Inorganic Nitrogen	Monthly	Grab	mg/L
Cell Depth	Monthly	Measure	Feet
Free Board	Monthly	Measure	Feet

Land Application Report Requirements[(l)]		
Parameter	**Reporting Requirement**	**Units**
Crop Type	List of crops grown on each site	--
Crop Harvest	As measured based on harvest records	tons/year
Land Application Area	Total acreage where treated effluent was applied	Acres
Number of Application Days	Estimated days per growing season	days/season

Table Footnotes

a. See Definitions, Part VIII, for definition of terms.
b. All parameters in this table will be reported on the monthly Discharge Monitoring Report (DMR).
c. Effluent shall only be disposed of by methods allowed by UAC R317-3-11.5.A.
d. The Permittee shall monitor influent at the stated frequency for this parameter, even if no discharge occurs during a particular month.
e. TBPEL Limit per UAC R317-1-3.3. Monitoring for total phosphorus, orthophosphate, ammonia,

nitrate, nitrite, and total Kjeldahl nitrogen are required to comply with Utah Secondary Treatment Standards and TBPEL rule requirements.

f. Flow measurements of effluent volume shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained.
g. If the rate of discharge is controlled, the rate and duration of discharge shall be reported.
h. Oil & Grease shall be sampled when sheen is present or visible. If no sheen is present or visible, report "No Discharge" on the DMR. There shall be no visible sheen or floating solids or visible foam in other than trace amounts.
i. Metals samples shall be analyzed using a method that meets Method Detection Limit (MDL) requirements. If a test method is not available, the permittee must submit documentation to the Director regarding the method that will be used. The sample type (composite or grab) should be performed according to the method requirements.
j. Metals are being sampled in support of water quality analysis. Metals shall be monitored and reported quarterly but do not have numeric effluent limits at this time. If Corinne samples more frequently for these parameters, the additional data is encouraged.
k. Metals include Arsenic, Cadmium, Total Chromium, Copper, Cyanide, Lead, Mercury, Nickel, Selenium, Silver, and Zinc.
l. Land Application Reports shall be summarized by crop type and submitted annually no later than January 28th of the year following the reporting period.
m. Interim effluent limitations are in effect through December 31, 2027. See Compliance Schedule in Part I.E. of the Permit for more information.

D. Management Practices for Land Application of Treated Effluent:

(1) The application of treated effluent to frozen, ice-covered, or snow covered land is prohibited.
(2) No person shall apply treated effluent where the slope of the site exceeds 6 percent.
(3) The use shall not result in a surface water runoff.
(4) The use shall not result in the creation of an unhealthy or nuisance condition, as determined by the local health department.
(5) Any irrigation with treated effluent shall be at least 300 feet from a potable well.
(6) For Type II reuse, any irrigation shall be at least 300 feet from any potable water well.
(7) For Type II reuse, spray irrigation shall be at least 100 feet from areas intended for public access. This distance may be reduced or increased by the Director.
(8) Impoundments of treated effluent, if not sealed, shall be at least 500 feet from any potable well.
(9) Public access to effluent storage and irrigation or disposal sites shall be restricted by a stock-tight fence or other comparable means which shall be posted and controlled to exclude the public (Compliance Schedule for a Particular Parameter if necessary)

E. Upgrades Compliance Schedule

1. Interim effluent limitations for Outfall 001D shall be effective through December 31, 2027. Final Limits will go into effect on January 1, 2028.

Compliance Schedule Milestones	
Date	**Milestone Description**
January 1, 2026	Permittee will submit complete design plans to DWQ. Plans must include updates on construction funding. If plans are submitted and

	construction beings prior to January 1, 2026, Permittee shall provide DWQ with construction progress by January 1, 2026.
July 1, 2026	Permittee provides update on collection system construction progress.
January 1, 2027	Permittee provides update on collection system construction progress.
January 1, 2028	Construction complete; Facility must meet final effluent limits.

Outfall 001D Interim Effluent Limitations					
Parameter	Maximum Monthly Avg	Maximum Weekly Avg	Daily Minimum	Daily Maximum	Units
BOD_5	45	65	--	--	mg/L
TSS	45	65	--	--	mg/L
pH	--	--	6.5	9.5	SU

Outfall 001D Final Effluent Limitations					
Parameter	Maximum Monthly Avg	Maximum Weekly Avg	Daily Minimum	Daily Maximum	Units
BOD_5	25	35	--	--	mg/L
TSS	25	35	--	--	mg/L
pH	--	--	6.5	9.0	SU

2. Violation of the Compliance Schedule is a violation of the UPDES Permit.

F. 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 on a Discharge Monitoring Report (DMR) Form (EPA No. 3320-1)* or by NetDMR, post-marked or entered into NetDMR no later than the 28th 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 DWQ at the following address:

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

2. Reporting of Reuse Monitoring Results. Monitoring results obtained during the previous month shall be summarized for each month and reported on NetDMR*, no later than the 28th day of the month following the completed reporting period. If no reuse occurs

* Starting January 1, 2017 monitoring results must be submitted using NetDMR unless the permittee has successfully petitioned for an exception.

during the reporting period, "no reuse" shall be reported for those applicable effluent parameters. Legible copies of these, and all other reports required herein, shall be signed and certified in accordance with the requirements of Signatory Requirements (see Part VII.G), and submitted to the Division of Water Quality (DWQ) at the following address:

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

II. PRETREATMENT REQUIREMENTS

A. Definitions.
For Part II. the following definitions shall apply:

1. Indirect Discharge means the introduction of pollutants into a publicly-owned treatment works (POTW) from any non-domestic source regulated under section 307 (b), (c) or (d) of the CWA.

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

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

   b. Therefore is a cause of a violation of any requirement of the POTW's UPDES 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 CWA, 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 or Interference. And is developed in accordance with 40 C.F.R. § 403.5(c).

4. Pass Through means a Discharge which exits the POTW into waters of the State or 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 UPDES permit (including an increase in the magnitude or duration of a violation).

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

6. Significant Industrial User (SIU) means:

   a. Except as provided in Parts II.A. (6)(b) and (6)(c) of this definition, the term Significant Industrial User means:

      (1) All Industrial Users subject to Categorical Pretreatment Standards under 40 C.F.R. § 403.6 and 40 C.F.R. § chapter I, subchapter N; and

(2) Any other Industrial User that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process waste stream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW Treatment plant; or is designated as such by the Control Authority on the basis that the Industrial User has a reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standard or requirement (in accordance with 40 C.F.R. § 403.8(f)(6)).

b. The Control Authority may determine that an Industrial User subject to categorical Pretreatment Standards under § 403.6 and 40 C.F.R. § chapter I, subchapter N is a Non-Significant Categorical Industrial User rather than a Significant Industrial User on a finding that the Industrial User never discharges more than 100 gallons per day (gpd) of total categorical wastewater (excluding sanitary, non-contact cooling and boiler blowdown wastewater, unless specifically included in the Pretreatment Standard) and the following conditions are met:

(1) The Industrial User, prior to the Control Authority's finding, has consistently complied with all applicable categorical Pretreatment Standards and Requirements;

(2) The Industrial User annually submits the certification statement required in § 403.12(q) together with any additional information necessary to support the certification statement; and

(3) The Industrial User never discharges any untreated concentrated wastewater.

c. Upon a finding that an Industrial User meeting the criteria in Part II.A. (6)(a)(2) of this definition has no reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standards or requirement, the Control Authority may at any time, on its own initiative or in response to a petition received from an Industrial User or POTW, and in accordance with 40 C.F.R. § 403.8(f)(6), determine that such Industrial User is not a Significant Industrial User.

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

B. Pretreatment Monitoring and Reporting Requirements.

1. The design capacity of the municipal wastewater treatment facility is less than 5 MGD; therefore, the Permittee will not be required to develop an Approved POTW Pretreatment Program. However, in order to determine if development of an Approved POTW Pretreatment Program is warranted, the Permittee shall conduct an **industrial waste survey**, as described in Part II.C.1.

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

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

C. Industrial Wastes.

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

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

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

   c. Appropriate production data.

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

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

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

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

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

2. Specific Prohibited Standards. Developed pursuant to section 307 of the CWA requires that the Permittee shall not allow introduction of the following pollutants into the waste treatment system from any User (40 C.F.R. § 403.5):

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

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

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

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

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

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

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

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

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

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

3. In addition to the general and specific limitations expressed in Part II.D., more specific pretreatment limitations have been and will be promulgated for specific industrial categories under section 307 of the CWA as amended (See 40 C.F.R. §, Subchapter N, Parts 400 through 500, for specific information).

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

1. Any new introduction of pollutants into the treatment works from an indirect discharger (i.e., Industrial User) which would be subject to section 301 or 306 of the CWA 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 POTW at the time of issuance of the permit; and

3. For the purposes of Part II.E., 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 the POTW.

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

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

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

2. Require the Permittee to specify, by ordinance, contract, or other enforceable means, the type of pollutant(s) and the maximum amount which may be discharged to the Permittee's facility for treatment. Such requirement shall be imposed in a manner consistent with the POTW program development requirements of the General Pretreatment Regulations at 40 C.F.R. § 403;

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

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

G. Legal Action.
The Director retains the right to take legal action against the Industrial User and/or the treatment works, in those cases where a permit violation has occurred due to 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 shall 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 shall submit limits to DWQ for review and public notice, as required by R317-8-8.5(4)(c). Local Limits shall be developed in accordance with the latest revision of the EPA Local Limits Development Guidance and per R317-8-8.5.

III. BIOSOLIDS REQUIREMENTS

The State of Utah has adopted the 40 C.F.R. § Part 503 federal regulations for the disposal of sewage sludge (biosolids) by reference. However, since this facility is a lagoon, there is not any regular sludge production. Therefore 40 C.F.R. § Part 503 shall 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 DWQ must be contacted prior to the removal of the sludge to ensure that all applicable state and federal regulations are met.

IV. STORM WATER REQUIREMENTS

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

V. MONITORING, RECORDING & GENERAL REPORTING REQUIREMENTS

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

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

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

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

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

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

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

G. Retention of Records.
The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to

complete the application for this permit, for a period of at least five years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time. A copy of this UPDES permit shall 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 DWQ via the 24-hour answering service (801) 536-4123.

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

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

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

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

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

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

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

   a. A description of the noncompliance and its cause;

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

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

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

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

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

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

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

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

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

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

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

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

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

VI. COMPLIANCE RESPONSIBILITIES

A. Duty to Comply.
The Permittee shall 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 $25,000 per day for each violation. Except as provided at Part VI.G, Bypass of Treatment Facilities and Part VI.H, Upset Conditions, nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.

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

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

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

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

G. Bypass of Treatment Facilities.

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

2. Prohibition of Bypass.

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

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

      (2) There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance, and

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

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

3. Notice.

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

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

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

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

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

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

      (6) Any additional information requested by the Director.

   b. Emergency Bypass. Where ninety days advance notice is not possible, the permittee must notify the Director, and the Director of the Department of Natural Resources, as

soon as it becomes aware of the need to bypass and provide to the Director the information in Part VI.G.3.a.(1) through (6) to the extent practicable.

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

H. Upset Conditions.

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

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

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

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

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

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

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

VII. GENERAL REQUIREMENTS

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

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

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

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

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

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

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

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

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

G. Signatory Requirements.

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

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

   a. The authorization is made in writing by a person described in Part VII.G.1. and submitted to the Director, and,

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

      (1) For a corporation. By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
         (a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or
         (b) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
      (2) For a partnership or sole proprietorship. By a general partner or the proprietor, respectively; or
      (3) For a municipality, State, Federal, or other public agency. By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
         (a) The chief executive officer of the agency, or
         (b) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

2. All reports required by the permit and other information requested by the Director shall be signed by a person described in Part VII.G.1. or by a duly authorized representative of that person.

3. Changes to authorization. If an authorization under Part 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 Part VII.G.2. shall be

submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

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

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

H. Penalties for Falsification of Reports.
The Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000.00 per violation, or by imprisonment for not more than six months per violation, or by both.

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

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

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

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

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

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

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

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

N. State or Federal Laws.
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by sections 19-5-117 and 510 of the CWA or any applicable Federal or State transportation regulations, such as but not limited to the Department of Transportation regulations.

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

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

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

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

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

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

VIII. DEFINITIONS

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

7. "BOD" or "BOD_5" means five-day Biochemical Oxygen Demand.

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

9. "C.F.R. §," means Code of Federal Regulations Section(s).

10. "Chronic toxicity" occurs when the IC25< % effluent. The % effluent is the concentration of the effluent in the receiving water, at the end of the mixing zone expressed as per cent effluent.

11. "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.

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

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

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

15. "DMR" means Discharge Monitoring Report.

16. "DO" means Dissolved Oxygen.

17. "DWQ" means the Division of Water Quality.

18. "EPA" means the United States Environmental Protection Agency.

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

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

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

22. "MDL" means Method Detection Limit.

23. "MGD" means million gallons per day.

24. "POTW" means Publicly Owned Treatment Works.

25. "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.

26. "SU" means Standard Units.

27. "TBPEL" means Technology-Based Phosphorus Effluent Limit.

28. "TDS" means Total Dissolved Solids.

29. "TKN" means Total Kjeldahl Nitrogen.

30. "TSS" means Total Suspended Solids.

31. "UAC" means Utah Administrative Code.

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

Official Draft Public Notice Version **February 23, 2026**
The findings, determinations, and assertions contained in this document are not final and subject to change following the public comment period.

FACT SHEET
CITY OF CORINNE
RENEWAL PERMIT: DISCHARGE
UPDES PERMIT NUMBER: UT0020931
MINOR MUNICIPAL

FACILITY CONTACTS

Operator Name:	City of Corinne
Contact:	JL Nichols
Position:	Public Works Director
Phone Number:	(435) 720-7961
Permittee Name:	City of Corinne
Facility Name:	Corinne Wastewater Lagoon System
Mailing Address:	2420 North 4000 West Corinne, Utah 84307
Telephone:	(435) 744-5566
Actual Address:	2420 North 4000 West

DESCRIPTION OF FACILITY

The Corinne Wastewater Lagoon System (Facility) was constructed in 1971 with seven cells. In 1981 it was expanded to eight cells. The Facility serves the City of Corinne (Permittee) with a current population of 850 people, representing a 3.1% annual growth rate from the 730 people served under the previous 2021 permit. The Facility consists of a bar screen, 45° V-notch inlet weir, comminutor, sump and pump station, eight facultative lagoons operating in a series, a Steven discharge flow recorder, and a gas chlorine system. The Facility discharges approximately 0.07 MGD (million gallons/day) and has a hydraulic detention time of 180 days.

The Facility has two discharge Outfalls. Outfall 001 is a twelve-inch diameter corrugated metal pipe that runs approximately 200 feet and discharges directly into the Bear River. Outfall 001D discharges into a retention ditch and then into holding ponds on the adjacent farmer's property, which is used for irrigation during the growing season. The land application site is approximately 260 acres, south and southwest of the wastewater lagoons. Outfall 001 has not been used since at least 2016.

SUMMARY OF CHANGES FROM PREVIOUS PERMIT

Total Dissolved Solids (TDS)
The 2021 permit required monthly TDS monitoring at both Outfall 001 and Outfall 001D, but did not establish an effluent limitation. Instead, the permit included a reopener clause stating: "At any time during this permit cycle, if the analysis results indicate the TDS is over the projected Total Maximum Daily Load (TMDL) of 1200 mg/L, Division of Water Quality (DWQ) will review the findings, and the permit may be reopened to address those concerns." Monitoring data from the 2021-2026 permit cycle showed 23 months where TDS concentrations exceeded 1200 mg/L at Outfall 001D during land application discharge. A 1200 mg/L TDS limit will apply to Outfall 001 to ensure compliance with water quality standards if discharge to

the Bear River occurs. Outfall 001D will continue TDS monitoring to track potential impacts from land application.

Facility Upgrades

The Permittee is currently implementing a comprehensive wastewater collection system replacement project to address infiltration and inflow (I&I) issues. The 50-year-old concrete sewer pipes have developed cracks and damaged joints, allowing groundwater to enter the system. To address the I&I issues, the Permittee is implementing a comprehensive $8.1 million wastewater collection system replacement project. The project will replace 19,400 linear feet of deficient sewer pipe, 53 manholes, and reconnect 169 service laterals. Additionally, the Permittee will construct a new headworks building with fine screening and replace the river lift station pumps and force main. The Permittee has developed a preliminary construction schedule to address the necessary remediation of its wastewater system, with construction expected to be completed by January 1, 2028.

A Compliance Schedule added through a permit modification effective May 1, 2025, established interim effluent limitations for Biological Oxygen Demand (BOD_5), Total Suspended Solids (TSS), and pH at Outfall 001D while the collection system improvements are completed. The Compliance Schedule includes specific milestones for design submittal, construction progress reporting, and final compliance, and has been included in this permit.

Compliance Schedule Milestones	
Date	**Milestone Description**
January 1, 2026	Permittee will submit complete design plans to DWQ. Plans must include updates on construction funding. If plans are submitted and construction beings prior to January 1, 2026, Permittee shall provide DWQ with construction progress by January 1, 2026.
July 1, 2026	Permittee provides update on collection system construction progress.
January 1, 2027	Permittee provides update on collection system construction progress.
January 1, 2028	Construction complete; Facility must meet final effluent limits.

The following interim effluent limitations for Outfall 001D are in effect through December 31, 2027.

Outfall 001D Interim Effluent Limitations					
Parameter	Maximum Monthly Avg	Maximum Weekly Avg	Daily Minimum	Daily Maximum	Units
BOD_5	45	65	--	--	mg/L
TSS	45	65	--	--	mg/L
pH	--	--	6.5	9.5	Standard Units (SU)

Final Limits will go into effect on January 1, 2028.

Outfall 001D Final Effluent Limitations					
Parameter	Maximum Monthly Avg	Maximum Weekly Avg	Daily Minimum	Daily Maximum	Units

BOD_5	25	35	--	--	mg/L
TSS	25	35	--	--	mg/L
pH	--	--	6.5	9.0	SU

Phosphorus Loading Cap
The City of Corinne permit recognizes two distinct phosphorus-related figures: a 2.5 lb/day wasteload allocation identified in the 2018 Implementation Plan and a 558 lb/year yearly maximum limit established in 2017 with the Technology-Based Phosphorus Effluent Limit (TBPEL) rule, Utah Administrative Code (UAC) R317-1-3.3 (DWQ-2017-014206). Although the 2.5 lb/day figure represents the Facility's broad allocation within the Lower Bear River TMDL framework, the 558 lb/year value is the primary enforceable limit for the current permit term. This yearly maximum is significantly more restrictive than the daily allocation, as 558 lbs/year equates to approximately 1.53 lb/day when distributed over a full calendar year. Per standard regulatory procedures, the more stringent requirement controls the permit to ensure the protection of the receiving water.

The 558 lb/year permit limit was established by identifying a specific Maximum Annual Load of 446 lbs/year (observed during 2012-2016) and multiplying that year's peak by 125 percent. While the Wasteload Analysis (WLA) provides a daily ceiling for long-term watershed planning, the permit limit serves as a technology-based cap that reflects the Facility's actual peak annual performance during the baseline period. This limit remains unchanged for the 2026 permit cycle.

DISCHARGE

Description of Discharge
The Permittee has been reporting monthly self-monitoring results on NetDMR throughout the current permit cycle (June 2021 - May 2026). The Facility did not discharge from Outfall 001 to the Bear River during this period. All wastewater was discharged through Outfall 001D for land application. The frequency of noncompliance at Outfall 001D accelerated during this period, with the Facility experiencing exceedances in 27 monthly monitoring periods. These violations included 24 pH exceedances ranging from 9.12 to 9.8 SU, 15 BOD_5 exceedances ranging from 26 to 59 mg/L, and 13 TSS exceedances ranging from 26 to 112 mg/L. These persistent issues were largely attributed to high rates of I&I within the aging collection system, which contributed an estimated 35% of total wastewater flows and caused system instability.

The Facility received a Warning Letter on December 12, 2022, for pH and TSS violations in July and August 2022. The frequency of noncompliance accelerated through 2023 and 2024, with pH levels consistently exceeding the 9.0 SU limit and multiple simultaneous exceedances of BOD_5, TSS, and pH occurring during the same monitoring periods. Subsequently, on November 20, 2023, the Permittee received a Notice of Violation and Compliance Order (NOV/CO) for the pattern of exceedances, as well as late discharge monitoring reports and failure to report cell depth and freeboard measurements for Outfall 001D. In response to the NOV/CO, the Permittee worked with Sunrise Engineering to develop a wastewater master plan and Compliance Schedule.

Outfall	Description of Discharge Point
001	Located at latitude 41°32'13.7" and longitude 112°06'39.9". The Facility is located approximately ½

	mile south of the City of Corinne on the west side of the Bear River. The discharge is from a 12-inch corrugated metal pipe discharging directly to the Bear River.
001D	Located at latitude 41°32'12.5" and longitude 112°06'41.7". The discharge from this location flows into a retention ditch and then into a holding pond on the adjacent farmer's property for land disposal.

Permit compliance monitoring shall occur at the Outfall locations.

Receiving Waters and Stream Classification
The effluent from Outfall 001 will discharge directly to the Bear River.

Per UAC R317-2-13.3(a), the designated beneficial uses for the Bear River and tributaries, from Great Salt Lake to the Utah-Idaho border are 2B, 3B, 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 3B - Protected for warm water species of game fish and other warm water aquatic life, including the necessary aquatic organisms in their food chain.*
>
> *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.*

TMDL Requirements
According to Utah's 2024 303(d) Water Quality Assessment Report, the receiving water for the discharge, Bear River from Reeder Overflow Canal to Malad River confluence (UT16010204-008_02, Bear River-2-2) is impaired for Benthic Invertebrate Assessment and TDS.

A TMDL for the Lower Bear River was completed in 2002 but lacked sufficient data for accurate nutrient load allocations. The DWQ developed an Implementation Plan in 2018 that allocated 2.5 lbs/day of total phosphorus based on the Facility's historical average load of 2.0 lbs/day multiplied by 125 percent to allow for growth. The TMDL instream total phosphorus endpoint established in 2002 remains unchanged.

The receiving water segment of the Bear River (UT16010204-008_02, Bear River-2-2) is formally listed as impaired for Benthic Invertebrate Assessment and TDS according to the 2024 Utah 303(d) Water Quality Assessment Report. This segment also remains listed as impaired for Total Phosphorus (TP), a status that was codified with the completion of a Total Maximum Daily Load (TMDL) for the Bear River on September 9, 2002. The 2025 WLA determines that no assimilative capacity exists for phosphorus in this segment, thus effluent limits for this parameter must be set equal to the water quality standard or the specifically assigned wasteload allocation regardless of dilution.

Basis for Effluent Limitations
In accordance with regulations promulgated in 40 Code of Federal Regulations Part 122.44 and UAC R317-8-4.2, effluent limitations are derived from technology-based effluent limitations guidelines, Utah Secondary Treatment Standards (UAC R317-1-3.2) or Utah Water Quality Standards (UAC R317-2) as applicable. In cases where multiple limits have been developed, those that are more stringent apply. In cases where no limits or multiple limits have been developed, Best Professional Judgment (BPJ) of the permitting authority may be used where applicable. Best Professional Judgment, or BPJ, refers to a discretionary, best professional decision made by the permit writer based upon precedent, prevailing regulatory standards, or other relevant information.

Permit limits can also be derived from the WLA. The WLA incorporates Secondary Treatment Standards, Water Quality Standards (including TMDL requirements), Antidegradation Reviews (ADR), and designated uses into a water quality model that projects the effects of discharge concentrations on receiving water quality. Effluent limitations are those that the model demonstrates are sufficient to meet State water quality standards in the receiving waters.

Limitations on BOD_5, TSS, *E. coli*, pH, and percent removal for BOD_5 and TSS are based on Utah Secondary Treatment Standards (UAC R317-1-3.2). Total phosphorus limitations are based on the TBPEL Rule (UAC R317-1-3.3) as discussed in the Phosphorus Loading Cap section of this Fact Sheet. The 1200 mg/L maximum daily TDS limit for Outfall 001 is a water quality-based limit derived from Utah Water Quality Standards (UAC R317-2-14, Table 2.14.4) for Class 4 (agricultural) beneficial uses. The Dissolved Oxygen (DO) limit is based on the WLA. Total Residual Chlorine (TRC) was evaluated and determined not to require a numeric effluent limit or monitoring because the high dilution ratio (62.0 cfs receiving water flow versus 0.11 cfs Facility discharge) demonstrates no reasonable potential to cause or contribute to an excursion above Water Quality Standards.

This permit renewal is considered a simple renewal of the existing UPDES permit. Because the Permittee is not requesting an increase in the permitted flow rate or the concentration of pollutants beyond those authorized in the previous permit cycle, a Level II ADR is not required under UAC R317-2-3.5.b. A Level I ADR was conducted to ensure the maintenance and protection of all existing beneficial uses attained in the Bear River. The final determination indicates that water quality impacts are minimal and that the Facility is expected to comply with established 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. Initial screening for metals values that were submitted through the Discharge Monitoring Reports (DMRs) showed that all monitored parameters were well below the maximum allowable concentrations, and that there is no reasonable potential for these parameters to cause or contribute to an exceedance of water quality standards. Therefore, the full RP model was not necessary for these parameters.

Permit effluent limitations for Outfall 001 are shown in the table below.

Outfall 001 Effluent Limitations[(a)(b)(c)]						
Parameter	Maximum Monthly Avg	Maximum Weekly Avg	Daily Minimum	Daily Maximum	Yearly Maximum	Units
Total Flow	0.07	--	--	--	--	MGD

BOD_5[(d)]	25	35	--	--	--	mg/L
BOD_5 Min. % Removal	85	--	--	--	--	%
TSS[(d)]	25	35	--	--	--	mg/L
TSS Min. % Removal	85	--	--	--	--	%
TDS	--	--	--	1200	--	mg/L
DO	--	--	4.0	--	--	mg/L
E. coli	126	158	--	--	--	No./100ml
Total Phosphorus (as P)[(e)]	--	--	--	--	558	lbs/year
pH	--	--	6.5	9	--	SU

Outfall 001 Self-monitoring and Reporting Requirements

The following self-monitoring requirements are the same as in the previous permit. The permit requires reports to be submitted monthly and annually, as applicable, on DMR forms due 28 days after the end of the monitoring period. Effective January 1, 2017, monitoring results shall be submitted using NetDMR unless the permittee has successfully petitioned for an exception. Lab sheets for metals and toxic organics shall be attached to the DMRs.

Outfall 001 Self-Monitoring and Reporting Requirements[(a)(b)]			
Parameter	Frequency	Sample Type	Units
Total Flow[(f)(g)]	Continuous	Recorder	mgd
BOD_5[(d)]			
Influent	Monthly	Composite	mg/L
Effluent	Monthly	Composite	mg/L
TSS[(d)]			
Influent	Monthly	Composite	mg/L
Effluent	Monthly	Composite	mg/L
TDS			
Influent	Monthly	Composite	mg/L
Effluent	Monthly	Composite	mg/L
E. coli	Monthly	Grab	No./100mL
pH	Monthly	Grab	SU
DO	Monthly	Grab	mg/L
Oil & Grease[(h)]	When Sheen Observed	Grab	mg/L
Orthophosphate (as P)[(e)]	Monthly	Composite	mg/L
Total Phosphorus (as P)[(d)(e)]			
Influent	Monthly	Composite	mg/L
Effluent	Monthly	Composite	mg/L
Total Kjeldahl Nitrogen (TKN) (as N) [(d)(e)]			
Influent	Monthly	Composite	mg/L
Effluent	Monthly	Composite	mg/L
Nitrate, NO3[(e)]	Monthly	Composite	mg/L
Nitrite, NO2[(e)]	Monthly	Composite	mg/L

Metals[(d)(i)(j)(k)] Influent Effluent	Quarterly Quarterly	Composite Composite	mg/L mg/L
Organic Toxics[(d)] Influent Effluent	2nd and 4th Years 2nd and 4th Years	Grab Grab	mg/L mg/L

Permit effluent limitations for Outfall 001D are shown in the table below.

Outfall 001D Type II Land Disposal Effluent Limitations[(a)(b)(c)(l)]					
Parameter	Maximum Monthly Avg	Maximum Weekly Avg	Daily Minimum	Daily Maximum	Units
BOD_5[(m)]	25	35	--	--	mg/L
TSS[(m)]	25	35	--	--	mg/L
E. coli	--	158	--	500	No./100mL
pH[(m)]	--	--	6.5	9	SU

Outfall 001 Self-monitoring and Reporting Requirements

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

Outfall 001D Self-Monitoring and Reporting Requirements[(a)(b)(l)]			
Parameter	Frequency	Sample Type	Units
Applied Flow[(f)(g)]	Continuous	Recorder	MGD
Irrigated Acreage	Monthly	Estimated	Acres
BOD_5[(d)]	Monthly	Composite	mg/L
TSS[(d)]	Monthly	Composite	mg/L
TDS[(d)]	Monthly	Composite	mg/L
E. coli	Monthly	Grab	No./100mL
pH	Monthly	Grab	SU
Total Inorganic Nitrogen	Monthly	Grab	mg/L
Cell Depth	Monthly	Measure	Feet
Free Board	Monthly	Measure	Feet

Land Application Report Requirements[(l)]		
Parameter	**Reporting Requirement**	**Units**
Crop Type	List of crops grown on each site	--
Crop Harvest	As measured based on harvest records	tons/year
Land Application Area	Total acreage where treated effluent was applied	Acres
Number of Application Days	Estimated days per growing season	days/season

Table Footnotes

a. See Definitions, Part VIII, for definition of terms.
b. All parameters in this table will be reported on the monthly Discharge Monitoring Report (DMR).
c. Effluent shall only be disposed of by methods allowed by UAC R317-3-11.5.A.
d. The Permittee shall monitor influent at the stated frequency for this parameter, even if no discharge occurs during a particular month.
e. TBPEL Limit per UAC R317-1-3.3. Monitoring for total phosphorus, orthophosphate, ammonia, nitrate, nitrite, and total Kjeldahl nitrogen are required to comply with Utah Secondary Treatment Standards and TBPEL rule requirements.
f. Flow measurements of effluent volume shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained.
g. If the rate of discharge is controlled, the rate and duration of discharge shall be reported.
h. Oil & Grease shall be sampled when sheen is present or visible. If no sheen is present or visible, report "No Discharge" on the DMR. There shall be no visible sheen or floating solids or visible foam in other than trace amounts.
i. Metals samples shall be analyzed using a method that meets Method Detection Limit (MDL) requirements. If a test method is not available, the permittee must submit documentation to the Director regarding the method that will be used. The sample type (composite or grab) should be performed according to the method requirements.
j. Metals are being sampled in support of water quality analysis. Metals shall be monitored and reported quarterly but do not have numeric effluent limits at this time. If Corinne samples more frequently for these parameters, the additional data is encouraged.
k. Metals include Arsenic, Cadmium, Total Chromium, Copper, Cyanide, Lead, Mercury, Nickel, Selenium, Silver, and Zinc.
l. Land Application Reports shall be summarized by crop type and submitted annually no later than January 28th of the year following the reporting period.
m. Interim effluent limitations are in effect through December 31, 2027. See Compliance Schedule in Part I.E. of the Permit for more information.

Management Practices for Land Application of Treated Effluent:

(1) The application of treated effluent to frozen, ice-covered, or snow-covered land is prohibited.
(2) No person shall apply treated effluent where the slope of the site exceeds 6 percent.
(3) The use shall not result in a surface water runoff.
(4) The use shall not result in the creation of an unhealthy or nuisance condition, as determined by the local health department.
(5) Any irrigation with treated effluent shall be at least 300 feet from a potable well.
(7) For Type II reuse, any irrigation shall be at least 300 feet from any potable water well.
(8) For Type II reuse, spray irrigation shall be at least 100 feet from areas intended for public access. This distance may be reduced or increased by the Director.
(9) Impoundments of treated effluent, if not sealed, shall be at least 500 feet from any potable well.
(10) Public access to effluent storage and irrigation or disposal sites shall be restricted by a stock-tight fence or other comparable means which shall be posted and controlled to exclude the public.

BIOSOLIDS

For clarification purposes, sewage sludge is considered solids, until treatment or testing shows that the

solids are safe, and meet beneficial use standards. After the solids are tested or treated, the solids are then known as biosolids. Class A biosolids, may be used for high public contact sites, such as home lawns and gardens, parks, or playing fields, etc. Class B biosolids may be used for low public contact sites, such as farms, rangeland, or reclamation sites, etc.

The State of Utah has adopted the 40 Code of Federal Regulations (C.F.R.) § 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 C.F.R. § 503 shall 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 DWQ must be contacted prior to the removal of the sludge to ensure that all applicable state and federal regulations are met

STORM WATER

Permit coverage under the 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. 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 C.F.R. § 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 shall 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 shall 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 DWQ 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 C.F.R. §, Part 403.5(a) and Part 403.5(b). This evaluation may indicate that present local limits are sufficiently protective, may 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 (WET) 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 with facultative lagoon treatment discharging to the Bear River, a perennial stream classified for aquatic life (Class 3B), secondary contact recreation (Class 2B), wildlife habitat (Class 3D), and agricultural uses (Class 4). The facility has authorization to discharge from Outfall 001 to the Bear River, though no discharge from Outfall 001 occurred during the 2021-2026 permit cycle as all effluent was directed to land application through Outfall 001D. Based on the absence of recent discharge from Outfall 001, the facultative lagoon treatment process which provides extended detention time and pathogen reduction, and the lack of industrial or significant commercial dischargers in the collection system, there is no reasonable potential for toxicity in the Facility's discharge to the Bear River (per State of Utah Permitting and Enforcement Guidance Document for WET Control). As such, there will be no numerical WET limitations or WET monitoring requirements in this permit. However, the permit will contain a toxicity limitation re-opener provision that allows for modification of the permit should additional information indicate the presence of toxicity in the discharge.

PERMIT DURATION

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

Drafted and Reviewed by
Jordan Bentley, Permit Writer, Reasonable Potential Analysis
Daniel Griffin, Biosolids
Jennifer Robinson, Pretreatment
Lonnie Shull, Biomonitoring
Carl Adams, Storm Water
Lucy Parham, TMDL/Watershed Protection
Suzan Tahir, Wasteload Analysis/ADR
Utah Division of Water Quality, (801) 536-4300

PUBLIC NOTICE INFORMATION (to be updated after)

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

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

The Public Notice of the draft permit was published on State of Utah and/or DWQ's website for at least 30 days as required.

During the public notice and comment period provided under UAC 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 UAC R317-8-6.12.

ADDENDUM TO FACT SHEET

During finalization of the Permit certain dates, spelling edits and minor language corrections were completed. Due to the nature of these changes, they are considered minor changes, and the permit is not required to be re Public Noticed as provided in UAC R317-8-5.6(3)

Responsiveness Summary
(Explain any comments received and response sent. Actual letters can be referenced but not required to be included).

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ATTACHMENT 1

Industrial Waste Survey

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Industrial Pretreatment Wastewater Survey

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

An Industrial Waste Survey consists of:

Step 1: Identify Industrial Users

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

Sources for the list:

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

Split the list into two groups:

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

Step 2: Preliminary Inspection

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

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

Step 3: Informing the State

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

Jennifer Robinson

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

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

PRELIMINARY INSPECTION FORM

INSPECTION DATE ___ / ____ /

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

_____

Description of Business _____

Principal product or service: _____

Raw Materials used: _____

_____

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

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

_____

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

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

Wastes are discharged to (check all that apply):

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

_____

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

Does the business discharge a lot of process wastewater?

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

Does the business do any of the following:

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

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

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

Inspector

Waste Treatment Facility

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

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

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

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

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ATTACHMENT 2

Effluent Monitoring Data

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Influent Monitoring Data

Year	Month	BOD_mg/L	TKN_mg/L	TSS_mg/L	Total_Phosphorus_mg/L
2021	January	ND	ND	ND	ND
2021	February	56	28.6	58	2.1
2021	March	43	35.3	124	3.5
2021	April	59	31.1	90	3.4
2021	May	ND	ND	ND	ND
2021	June	29	15.2	54	1.6
2021	July	46	16.1	127	2
2021	August	ND	ND	ND	ND
2021	September	82	19.3	117	2.1
2021	October	65	20	61	2.2
2021	November	65	26.9	34	2.7
2021	December	97	39.1	50	3.6
2022	January	85	36.1	91	4.6
2022	February	ND	ND	ND	ND
2022	March	ND	ND	ND	ND
2022	April	ND	ND	ND	ND
2022	May	ND	ND	ND	ND
2022	June	ND	ND	ND	ND
2022	July	181	24.7	104	2
2022	August	105	18.7	31	1.8
2022	September	ND	ND	ND	ND
2022	October	ND	ND	ND	ND
2022	November	269	45.9	148	4
2022	December	96	28.7	66	3
2023	January	147	20.9	72	2.2
2023	February	83	21.7	64	2
2023	March	87	24	108	2.3
2023	April	114	17.1	53	2.2
2023	May	0	ND	0	ND
2023	June	88	18.2	33	1.5
2023	July	119	18.6	64	2.3
2023	August	88	18.5	29	2.1
2023	September	88	16.4	45	2.1
2023	October	113	28.3	12	2.8
2023	November	236	30.2	70	2.5
2023	December	59	25.5	34	2.4
2024	January	112	42.9	48	3.5
2024	February	69	12.1	24	1.2

2024	March	65	18.7	22	2.1
2024	April	123	34.8	48	2
2024	May	153	31.3	90	19.3
2024	June	108	23	52	2.3
2024	July	123	39.7	94	5.1
2024	August	ND	ND	ND	ND
2024	September	176	36.8	48	6.1
2024	October	128	35.7	51	5.1
2024	November	225	58.6	23.8	5
2024	December	260	61	100	4.6
2025	January	144	40.4	56	3.1
2025	February	195	41.8	68	3.5
2025	March	115	35.3	46	2.7
2025	April	191	220	59	3.3
2025	May	295	59.2	60	5.5
2025	June	80	23.9	44	2.9
2025	July	95	18.7	42	2.2

Effluent Monitoring Data

Year	Month	Total_Inorganic_Nitrogen_mg/L	Ammonia_as_N_mg/L	BOD_mg/L	Nitrate_Nitrite_mg/L
2021	January	ND	ND	ND	ND
2021	February	2.2	2	Non Det	0.2
2021	March	1.2	1.2	23	0.3
2021	April	2.7	2.7	17	Non Det
2021	May	ND	ND	ND	ND
2021	June	8	8	34	Non Det
2021	July	0.5	0.5	11	Non Det
2021	August	ND	ND	ND	ND
2021	September	Non Det	Non Det	6	Non Det
2021	October	0.3	0.3	6	Non Det
2021	November	1	0.8	5	0.2
2021	December	2	1.1	Non Det	0.9
2022	January	2.5	1.5	14	1
2022	February	ND	ND	ND	ND
2022	March	ND	ND	ND	ND
2022	April	ND	ND	ND	ND
2022	May	ND	ND	ND	ND
2022	June	ND	ND	ND	ND
2022	July	0.6	0.6	23	ND
2022	August	0.4	0.4	25	ND
2022	September	ND	ND	ND	ND
2022	October	ND	ND	ND	ND
2022	November	1.4	0.96	Non Det	0.41
2022	December	1.3	0.74	14	0.6
2023	January	1.1	0.61	16	0.528

2023	February	4.2	3.32	16	0.884
2023	March	9.3	9.02	16	0.315
2023	April	1.8	1.03	42	0.795
2023	May	ND	ND	ND	ND
2023	June	5.3	5.27	39	Non
2023	July	2.4	2.18	53,36	0.231
2023	August	Non	0.26	26	Non
2023	September	0.6	0.52	36	0.1
2023	October	4.8	0.2	30,28	4.46
2023	November	0.7	0.53	23	0.18
2023	December	0.6	0.52	19	0.1
2024	January	Non Det.	Non Det	16	0.12
2024	February	1.7	1.54	19	0.2
2024	March	3.8	3	59	0.84
2024	April	0.5	0.31	39	0.19
2024	May	0.5	0.48	54	Non Det
2024	June	Non Det, 1.3	Non Det, 1.31	125,43	.118, Non Det
2024	July	0.6	0.55	168, 49	Non Det
2024	August	ND	ND	ND	ND
2024	September	Non Det	0.21	59	Non Det
2024	October	0.5	0.34	42	0.14
2024	November	0.4	0.23	26	0.157
2024	December	0.6	0.62	23	Non Det
2025	January	0.6	0.43	14	0.122
2025	February	Non Det	0.2	26	0.12
2025	March	0.06	0.3	54	0.32
2025	April	1.6	1.24	38	0.39
2025	May	5.2	5.06	20	0.14
2025	June	0.6	Non Det	16	0.6
2025	July	0.6	0.29	44	0.277

Effluent Monitoring Data

Year	Month	TSS_mg/L	pH	E_coli_per_100mL	TDS_mg/L
2021	January	ND	ND	ND	ND
2021	February	5	9	<1	1180
2021	March	17	9.2	<2	Missing?
2021	April	30	9.2	8	988
2021	May	ND	ND	ND	ND
2021	June	10	8.26	<1	1280
2021	July	40	8.94	38	1270
2021	August	ND	ND	ND	ND
2021	September	22	9.77	2	1390
2021	October	21	9.22	2	1250
2021	November	4	8.95	<1	1090
2021	December	Non Det	8.85	<1	1090
2022	January	4	8.8	<1	1130
2022	February	ND	ND	ND	ND
2022	March	ND	ND	ND	ND
2022	April	ND	ND	ND	ND
2022	May	ND	ND	ND	ND
2022	June	ND	ND	ND	ND
2022	July	30	9.4	2	1490
2022	August	9	9.6	<1	1500
2022	September	ND	ND	ND	ND
2022	October	ND	ND	ND	ND
2022	November	16	9.37	<1	1380
2022	December	11	9	<1	1240
2023	January	8	9.22	<1	1120
2023	February	Non	8.62	<1	1130
2023	March	8	8.66	<1	1120
2023	April	27	9.35	<1	952

2023	May	ND	ND	ND	ND
2023	June	15	8.48	1	1260
2023	July	6	8.85	<1	1370
2023	August	23	9.21	1	1530
2023	September	26	9.12	14	1370
2023	October	33,30	9.68	1	1240
2023	November	18	9.05	<1	1160
2023	December	8	9.42	<1	1110
2024	January	9	9.38	<1	964
2024	February	16	8.97	<1	944
2024	March	112	9.33	1	1040
2024	April	85	9.56	<1	1080
2024	May	79	9.88	1	1040
2024	June	53, 20	9.16	1	1390, 1320
2024	July	56, 63	9.27	31.1	1690
2024	August	ND	ND	ND	ND
2024	September	47	9.12	<1	1870
2024	October	49	9.31	<1	1880
2024	November	32	9.31	<1	2790
2024	December	12	9.51	<1	1660
2025	January	9	9.62	<1	1380
2025	February	18	9.74	<1	1440
2025	March	16	9.81	<1	1160
2025	April	20	9.45	<1	1030
2025	May	8	8.61	<1	1140
2025	June	10	8.66	<1	1500
2025	July	23	8.93	13	1630

Metals Monitoring Data

Year	Quarter	Arsenic	Cadmium	Chromium	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Zinc	Mercury	Cyanide
2021	3rd	0.0061	ND	0.0021	0.0012	ND	0.0087	**0.0031**	0.0019	ND	0.02	ND	0.005
2021	4th	0.0051	ND	0.003	0.0012	ND	0.0108	0.0028	0.0026	ND	ND	ND	0.003
2022	1st	0.0097	ND	0.0013	0.0025	**0.00005**	0.0102	0.0029	0.0011	ND	0.01	ND	ND
2022	2nd	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2022	3rd	0.0077	ND	0.0021	0.0038	ND	0.0122	0.0029	0.002	ND	0.02	ND	0.005
2022	4th	0.0078	ND	0.0008	0.0011	ND	**0.0135**	0.0028	0.0037	ND	ND	ND	ND
2023	1st	ND	ND	0.0012	**0.0417**	**0.00005**	ND	0.0007	ND	ND	**0.05**	ND	0.002
2023	2nd	0.0147	ND	0.0018	0.0015	**0.00005**	0.0077	0.0026	0.0022	ND	0.01	ND	ND
2023	3rd	**0.0161**	ND	0.0015	0.0013	ND	0.007	0.0026	0.002	ND	ND	ND	**0.009**
2023	4th	0.0103	ND	0.0009	0.0013	ND	0.0063	0.0026	0.0014	ND	ND	ND	0.003
2024	1st	0.0062	ND	0.0041	0.0022	ND	0.0059	0.0019	0.0021	ND	0.02	ND	ND
2024	2nd	0.0104	ND	0.0033	0.0017	ND	0.0087	0.0026	0.0022	ND	ND	ND	ND
2024	3rd	0.0143	ND	0.0012	0.0016	ND	0.0129	**0.0031**	0.0041	ND	ND	ND	ND
2024	4th	0.0118	ND	0.0014	0.0022	ND	0.0131	0.0029	0.0044	ND	ND	ND	ND
2025	1st	0.0054	ND	0.0057	0.0031	ND	0.0088	0.0024	**0.0046**	ND	0.03	ND	ND

2025	2nd	0.0037	ND	**0.0086**	0.0017	ND	0.009	0.0024	0.00443	ND	**0.05**	ND	ND
2025	3rd	0.005	ND	0.0039	0.0013	ND	0.0106	0.003	0.00422	ND	0.01	ND	ND

ATTACHMENT 3

Wasteload Analysis

Insert: DWQ-2026-000162 and DWQ-2026-000163

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

Date: **January 6, 2026**

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

Facility: **Corinne City Corp.**
UPDES No. UT- 0020931

Receiving water: **Bear River (2B, 3B, 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: Bear River

The mean monthly design discharge is 0.07 MGD (0.11 cfs) for the facility.

Receiving Water

The receiving water for Outfall 001 is the Bear River.

Per UAC R317-2-13.3(a), the designated beneficial uses for the Bear River and tributaries, from Great Salt Lake to Utah-Idaho border are 2B, 3B, 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 3B - Protected for warm water species of game fish and other warm water aquatic life, including the necessary aquatic organisms in their food chain.*

- *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.*

Critical Flow

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). The 7Q10 flow was calculated using USGS data from station 10126000 (BEAR RIVER NEAR CORINNE, UT) for the period 2014-2024. The calculated critical low flow values for each season are listed in Table 1.

Table 1. Seasonal 7Q10 Flow Values

Season	7Q10 Flow (cfs)
Summer	62.0
Fall	198.4
Winter	538.6
Spring	87.5

Receiving Water Quality

The receiving water quality in the Bear River was characterized using DWQ monitoring site 4901100 (BEAR RIVER NEAR CORINNE AT U83 XING) for the period 2014-2025.

TMDL

According to Utah's 2024 303(d) Water Quality Assessment Report, the receiving water for the discharge, Bear River from Reeder Overflow Canal to Malad River confluence (UT16010204-008_02, Bear River-2-2) is impaired for Benthic Invertebrate Assessment and Total Dissolved Solids (TDS).

In 2002, a TMDL was completed for the Lower Bear River. However, there were insufficient data to accurately allocate nutrient loads. In 2018, an Implementation Plan was developed by the Utah Division of Water Quality that included loading allocations for the point sources in the basin. The Implementation Plan allocates 2.5 lb/d of total phosphorus for this facility whereas the Corinne Lagoons current load is 2.0 lb/d of total phosphorus. The TMDL instream total phosphorus endpoint remains the same as in 2002.

Parameters of Concern

In consultation with the UPDES Permit Writer, it was determined that biochemical oxygen demand (BOD5), total phosphorus, total nitrogen, dissolved oxygen, total dissolved solids (TDS) and metals (calculated as a function of hardness) are the primary parameters of concern for this discharge and receiving water, specifically due to the presence of a local metal finisher. Additional parameters of concern may become apparent as a result of reasonable potential analysis, technology-based standards, or other factors as determined by the UPDES Permit Writer.

Protection of Downstream Uses

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

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.

The mixing zone analysis shows the discharge to be fully mixed by the end of the mixing zone. Acute limits were calculated using 50% of the seasonal critical low flow.

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 (see Table 2), 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	0.2%

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 Addendum.

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.

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.

Antidegradation Level II Review

A Level II Antidegradation Review (ADR) is not required for this facility.

Documents:

WLA Document *:*

Corinne_WLA_12-20-2025.docx

Wasteload Analysis and Addendum:

Corinne_WLA_12-20-2025.xlsm,
Corinne_WLA_SOB_12-20-2025.pdf

References:

Utah Division of Water Quality. 2024. Final 2024 Integrated Report on Water Quality. https://lf-public.deq.utah.gov/WebLink/DocView.aspx?id=87957&repo=Public&searchid=fcd9ea4c-51e1-4227-aa29-fb1921c2cc19&cr=1

Utah Division of Water Quality. 2021. Utah Wasteload Analysis Procedures Version 2.0. https://documents.deq.utah.gov/water-quality/standards-technical-services/DWQ-2021-000684.pdf

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.

USGS Flow Data:
https://waterdata.usgs.gov/nwis/dv?cb_00060=on&format=rdb&site_no=10126000&legacy=&referred_module=sw&period=&begin_date=2014-01-01&end_date=2024-12-31

Utah Division of Water Quality
Salt Lake City, Utah

WASTELOAD ANALYSIS [WLA]
Addendum: Statement of Basis

7-Jan-26
10:00 AM

Facilities: **Corinne Lagoons** **UPDES No: UT-0020931**
Discharging to: **Bear River**

I. Introduction

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 [R317-2-8, UAC]. Projected concentrations are compared to numeric water quality standards to determine acceptability. The anti-degradation policy and procedures are also considered. The primary in-stream parameters of concern may include metals (as a function of hardness), total dissolved solids (TDS), total residual chlorine (TRC), un-ionized ammonia (as a function of pH and temperature, measured and evaluated interms of total ammonia), and dissolved oxygen.

Mathematical water quality modeling is employed to determine stream quality response to point source discharges. Models aid in the effort of anticipating stream quality at future effluent flows at critical environmental conditions (e.g., low stream flow, high temperature, high pH, etc).

The numeric criteria in this wasteload analysis may always be modified by narrative criteria and other conditions determined by staff of the Division of Water Quality.

II. Receiving Water and Stream Classification

Bear River:	2B, 3B, 3D, 4
Antidegradation Review:	Antidegredation Level II not required. Simple renewal, no increase in permitted flow or concentration.

III. Numeric Stream Standards for Protection of Aquatic Wildlife

Total Ammonia (TNH3)	Varies as a function of Temperature and pH Rebound. See Water Quality Standards
Chronic Total Residual Chlorine (TRC)	0.011 mg/l (4 Day Average) 0.019 mg/l (1 Hour Average)
Chronic Dissolved Oxygen (DO)	5.50 mg/l (30 Day Average) 4.00 mg/l (7Day Average) 3.00 mg/l (1 Day Average
Maximum Total Dissolved Solids	1200.0 mg/l

Acute and Chronic Heavy Metals (Dissolved)

Parameter	4 Day Average (Chronic) Standard Concentration		Load*		1 Hour Average (Acute) Standard Concentration		Load*	
Aluminum	87.00	ug/l**	0.051	lbs/day	750.00	ug/l	0.438	lbs/day
Arsenic	150.00	ug/l	0.088	lbs/day	340.00	ug/l	0.198	lbs/day
Cadmium	1.80	ug/l	0.001	lbs/day	6.10	ug/l	0.004	lbs/day
Chromium III	201.01	ug/l	0.117	lbs/day	4205.62	ug/l	2.455	lbs/day
ChromiumVI	11.00	ug/l	0.006	lbs/day	16.00	ug/l	0.009	lbs/day
Copper	22.57	ug/l	0.013	lbs/day	37.09	ug/l	0.022	lbs/day
Iron					1000.00	ug/l	0.584	lbs/day
Lead	11.87	ug/l	0.007	lbs/day	304.54	ug/l	0.178	lbs/day
Mercury	0.0120	ug/l	0.000	lbs/day	2.40	ug/l	0.001	lbs/day
Nickel	125.12	ug/l	0.073	lbs/day	1125.34	ug/l	0.657	lbs/day
Selenium	4.60	ug/l	0.003	lbs/day	18.40	ug/l	0.011	lbs/day
Silver	N/A	ug/l	N/A	lbs/day	22.41	ug/l	0.013	lbs/day
Zinc	287.77	ug/l	0.168	lbs/day	287.77	ug/l	0.168	lbs/day

* Allowed below discharge

**Chronic Aluminum standard applies only to waters with a pH < 7.0 and a Hardness < 50 mg/l as CaCO3

Metals Standards Based upon a Hardness of 281.26 mg/l as CaCO3

Organics [Pesticides]

Parameter	4 Day Average (Chronic) Standard Concentration		Load*		1 Hour Average (Acute) Standard Concentration		Load*	
Aldrin					1.500	ug/l	0.001	lbs/day
Chlordane	0.004	ug/l	1.439	lbs/day	1.200	ug/l	0.001	lbs/day
DDT, DDE	0.001	ug/l	0.335	lbs/day	0.550	ug/l	0.000	lbs/day
Dieldrin	0.056	ug/l	18.747	lbs/day	0.240	ug/l	0.000	lbs/day
Endosulfan	0.056	ug/l	18.747	lbs/day	0.110	ug/l	0.000	lbs/day
Endrin	0.036	ug/l	12.051	lbs/day	0.086	ug/l	0.000	lbs/day
Guthion					0.010	ug/l	0.000	lbs/day
Heptachlor	0.004	ug/l	1.272	lbs/day	0.260	ug/l	0.000	lbs/day
Lindane	0.080	ug/l	26.781	lbs/day	1.000	ug/l	0.001	lbs/day
Methoxychlor					0.030	ug/l	0.000	lbs/day
Mirex					0.010	ug/l	0.000	lbs/day
Parathion					0.040	ug/l	0.000	lbs/day
PCB's	0.014	ug/l	4.687	lbs/day	2.000	ug/l	0.001	lbs/day
Pentachlorophenol	13.00	ug/l	4351.928	lbs/day	20.000	ug/l	0.012	lbs/day
Toxephene	0.0002	ug/l	0.067	lbs/day	0.7300	ug/l	0.000	lbs/day

IV. Numeric Stream Standards for Protection of Agriculture

	4 Day Average (Chronic) Standard			1 Hour Average (Acute) Standard		
	Concentration		Load*	Concentration		Load*
Arsenic				100.0	ug/l	lbs/day
Boron				750.0	ug/l	lbs/day
Cadmium				10.0	ug/l	0.00 lbs/day
Chromium				100.0	ug/l	lbs/day
Copper				200.0	ug/l	lbs/day
Lead				100.0	ug/l	lbs/day
Selenium				50.0	ug/l	lbs/day
TDS, Summer				1200.0	mg/l	0.35 tons/day

V. Numeric Stream Standards for Protection of Human Health (Class 1C Waters)

	4 Day Average (Chronic) Standard			1 Hour Average (Acute) Standard		
Metals	Concentration		Load*	Concentration		Load*
Arsenic					ug/l	lbs/day
Barium					ug/l	lbs/day
Cadmium					ug/l	lbs/day
Chromium					ug/l	lbs/day
Lead					ug/l	lbs/day
Mercury					ug/l	lbs/day
Selenium					ug/l	lbs/day
Silver					ug/l	lbs/day
Fluoride (3)					ug/l	lbs/day
to					ug/l	lbs/day
Nitrates as N					ug/l	lbs/day
Chlorophenoxy Herbicides						
2,4-D					ug/l	lbs/day
2,4,5-TP					ug/l	lbs/day
Endrin					ug/l	lbs/day
ocyclohexane (Lindane)					ug/l	lbs/day
Methoxychlor					ug/l	lbs/day
Toxaphene					ug/l	lbs/day

VI. Numeric Stream Standards the Protection of Human Health from Water & Fish Consumption [Toxics]

	Maximum Conc., ug/l - Acute Standards					
	Class 1C			Class 3A, 3B		
Toxic Organics	[2 Liters/Day for 70 Kg Person over 70 Yr.]			[6.5 g for 70 Kg Person over 70 Yr.]		
Acenaphthene	ug/l	lbs/day		90.0	ug/l	30.13 lbs/day
Acrolein	ug/l	lbs/day		400.0	ug/l	133.91 lbs/day
Acrylonitrile	ug/l	lbs/day		7.0	ug/l	2.34 lbs/day
Benzene	ug/l	lbs/day		51.0	ug/l	17.07 lbs/day
Benzidine	ug/l	lbs/day		0.0	ug/l	0.00 lbs/day
Carbon tetrachloride	ug/l	lbs/day		5.0	ug/l	1.67 lbs/day
Chlorobenzene	ug/l	lbs/day		800.0	ug/l	267.81 lbs/day
1,2,4-Trichlorobenzene						
Hexachlorobenzene	ug/l	lbs/day		0.0	ug/l	0.00 lbs/day
1,2-Dichloroethane	ug/l	lbs/day		2000.0	ug/l	669.53 lbs/day
1,1,1-Trichloroethane						
Hexachloroethane	ug/l	lbs/day		0.1	ug/l	0.03 lbs/day
1,1-Dichloroethane						
1,1,2-Trichloroethane	ug/l	lbs/day		8.9	ug/l	2.98 lbs/day
1,1,2,2-Tetrachloroetha	ug/l	lbs/day		3.0	ug/l	1.00 lbs/day
Chloroethane				0.0	ug/l	0.00 lbs/day
Bis(2-chloroethyl) ether	ug/l	lbs/day		2.2	ug/l	0.74 lbs/day
2-Chloroethyl vinyl ethe	ug/l	lbs/day		0.0	ug/l	0.00 lbs/day
2-Chloronaphthalene	ug/l	lbs/day		1000.0	ug/l	334.76 lbs/day
2,4,6-Trichlorophenol	ug/l	lbs/day		2.8	ug/l	0.94 lbs/day
p-Chloro-m-cresol				0.0	ug/l	0.00 lbs/day

Chloroform (HM)	ug/l	lbs/day	2000.0	ug/l	669.53	lbs/day
2-Chlorophenol	ug/l	lbs/day	800.0	ug/l	267.81	lbs/day
1,2-Dichlorobenzene	ug/l	lbs/day	3000.0	ug/l	1004.29	lbs/day
1,3-Dichlorobenzene	ug/l	lbs/day	10.0	ug/l	3.35	lbs/day
1,4-Dichlorobenzene	ug/l	lbs/day	900.0	ug/l	301.29	lbs/day
3,3'-Dichlorobenzidine	ug/l	lbs/day	0.2	ug/l	0.05	lbs/day
1,1-Dichloroethylene	ug/l	lbs/day	20000.0	ug/l	6695.27	lbs/day
1,2-trans-Dichloroethyle	ug/l	lbs/day	4000.0	ug/l	1339.05	lbs/day
2,4-Dichlorophenol	ug/l	lbs/day	60.0	ug/l	20.09	lbs/day
1,2-Dichloropropane	ug/l	lbs/day	31.0	ug/l	10.38	lbs/day
1,3-Dichloropropylene	ug/l	lbs/day	1700.0	ug/l	569.10	lbs/day
2,4-Dimethylphenol	ug/l	lbs/day	3000.0	ug/l	1004.29	lbs/day
2,4-Dinitrotoluene	ug/l	lbs/day	1.7	ug/l	0.57	lbs/day
2,6-Dinitrotoluene	ug/l	lbs/day	0.0	ug/l	0.00	lbs/day
1,2-Diphenylhydrazine	ug/l	lbs/day	0.2	ug/l	0.07	lbs/day
Ethylbenzene	ug/l	lbs/day	130.0	ug/l	43.52	lbs/day
Fluoranthene	ug/l	lbs/day	20.0	ug/l	6.70	lbs/day
4-Chlorophenyl phenyl ether						
4-Bromophenyl phenyl ether						
Bis(2-chloroisopropyl) e	ug/l	lbs/day	65000.0	ug/l	21759.64	lbs/day
Bis(2-chloroethoxy) met	ug/l	lbs/day	0.0	ug/l	0.00	lbs/day
Methylene chloride (HM	ug/l	lbs/day	1000.0	ug/l	334.76	lbs/day
Methyl chloride (HM)	ug/l	lbs/day	0.0	ug/l	0.00	lbs/day
Methyl bromide (HM)	ug/l	lbs/day	10000.0	ug/l	3347.64	lbs/day
Bromoform (HM)	ug/l	lbs/day	120.0	ug/l	40.17	lbs/day
Dichlorobromomethane(	ug/l	lbs/day	27.0	ug/l	9.04	lbs/day
Chlorodibromomethane	ug/l	lbs/day	21.0	ug/l	7.03	lbs/day
Hexachlorobutadiene(c)	ug/l	lbs/day	0.0	ug/l	0.00	lbs/day
Hexachlorocyclopentadi	ug/l	lbs/day	4.0	ug/l	1.34	lbs/day
Isophorone	ug/l	lbs/day	1800.0	ug/l	602.57	lbs/day
Naphthalene						
Nitrobenzene	ug/l	lbs/day	600.0	ug/l	200.86	lbs/day
2-Nitrophenol	ug/l	lbs/day	0.0	ug/l	0.00	lbs/day
4-Nitrophenol	ug/l	lbs/day	0.0	ug/l	0.00	lbs/day
2,4-Dinitrophenol	ug/l	lbs/day	14000.0	ug/l	4686.69	lbs/day
4,6-Dinitro-o-cresol	ug/l	lbs/day	765.0	ug/l	256.09	lbs/day
N-Nitrosodimethylamine	ug/l	lbs/day	3.0	ug/l	1.00	lbs/day
N-Nitrosodiphenylamine	ug/l	lbs/day	6.0	ug/l	2.01	lbs/day
N-Nitrosodi-n-propylami	ug/l	lbs/day	0.5	ug/l	0.17	lbs/day
Pentachlorophenol	ug/l	lbs/day	0.0	ug/l	0.01	lbs/day
Phenol	ug/l	lbs/day	3.0E+05	ug/l	1.00E+05	lbs/day
Bis(2-ethylhexyl)phthala	ug/l	lbs/day	0.4	ug/l	0.12	lbs/day
Butyl benzyl phthalate	ug/l	lbs/day	0.1	ug/l	0.03	lbs/day
Di-n-butyl phthalate	ug/l	lbs/day	30.0	ug/l	10.04	lbs/day
Di-n-octyl phthlate						
Diethyl phthalate	ug/l	lbs/day	600.0	ug/l	200.86	lbs/day
Dimethyl phthlate	ug/l	lbs/day	2.0E+03	ug/l	6.70E+02	lbs/day
Benzo(a)anthracene (P/	ug/l	lbs/day	0.0	ug/l	0.00	lbs/day
Benzo(a)pyrene (PAH)	ug/l	lbs/day	0.0	ug/l	0.00	lbs/day
Benzo(b)fluoranthene (F	ug/l	lbs/day	0.0	ug/l	0.00	lbs/day
Benzo(k)fluoranthene (F	ug/l	lbs/day	0.0	ug/l	0.00	lbs/day
Chrysene (PAH)	ug/l	lbs/day	0.1	ug/l	0.04	lbs/day
Acenaphthylene (PAH)						
Anthracene (PAH)	ug/l	lbs/day	400.0	ug/l	133.91	lbs/day

Dibenzo(a,h)anthracene	ug/l	lbs/day	0.0	ug/l	0.01 lbs/day
Indeno(1,2,3-cd)pyrene	ug/l	lbs/day	0.0	ug/l	0.01 lbs/day
Pyrene (PAH)	ug/l	lbs/day	30.0	ug/l	10.04 lbs/day
Tetrachloroethylene	ug/l	lbs/day	520.0	ug/l	174.08 lbs/day
Toluene	ug/l	lbs/day	520	ug/l	174.08 lbs/day
Trichloroethylene	ug/l	lbs/day	7.0	ug/l	2.34 lbs/day
Vinyl chloride	ug/l	lbs/day	1.6	ug/l	0.54 lbs/day
					lbs/day
Pesticides					lbs/day
Aldrin	ug/l	lbs/day	0.0	ug/l	0.00 lbs/day
Dieldrin	ug/l	lbs/day	0.0	ug/l	0.00 lbs/day
Chlordane	ug/l	lbs/day	0.0	ug/l	0.00 lbs/day
4,4'-DDT	ug/l	lbs/day	0.0	ug/l	0.00 lbs/day
4,4'-DDE	ug/l	lbs/day	0.0	ug/l	0.00 lbs/day
4,4'-DDD	ug/l	lbs/day	0.0	ug/l	0.00 lbs/day
alpha-Endosulfan	ug/l	lbs/day	30.0	ug/l	10.04 lbs/day
beta-Endosulfan	ug/l	lbs/day	40.0	ug/l	13.39 lbs/day
Endosulfan sulfate	ug/l	lbs/day	40.0	ug/l	13.39 lbs/day
Endrin	ug/l	lbs/day	0.0	ug/l	0.01 lbs/day
Endrin aldehyde	ug/l	lbs/day	1.0	ug/l	0.33 lbs/day
Heptachlor	ug/l	lbs/day	0.0	ug/l	0.00 lbs/day
Heptachlor epoxide					
PCB's					
PCB 1242 (Arochlor 124	ug/l	lbs/day	0.0	ug/l	0.00 lbs/day
PCB-1254 (Arochlor 125	ug/l	lbs/day	0.0	ug/l	0.00 lbs/day
PCB-1221 (Arochlor 122	ug/l	lbs/day	0.0	ug/l	0.00 lbs/day
PCB-1232 (Arochlor 123	ug/l	lbs/day	0.0	ug/l	0.00 lbs/day
PCB-1248 (Arochlor 124	ug/l	lbs/day	0.0	ug/l	0.00 lbs/day
PCB-1260 (Arochlor 126	ug/l	lbs/day	0.0	ug/l	0.00 lbs/day
PCB-1016 (Arochlor 101	ug/l	lbs/day	0.0	ug/l	0.00 lbs/day
Pesticide					
Toxaphene	ug/l		0.0	ug/l	0.00 lbs/day
Dioxin					
Dioxin (2,3,7,8-TCDD)	ug/l	lbs/day			
Metals					
Antimony	ug/l	lbs/day			
Arsenic	ug/l	lbs/day	640.00	ug/l	214.25 lbs/day
Asbestos	ug/l	lbs/day			
Beryllium					
Cadmium					
Chromium (III)					
Chromium (VI)					
Copper					
Cyanide	ug/l	lbs/day	4.0E+02	ug/l	133.91 lbs/day
Lead	ug/l	lbs/day			
Mercury			0.15	ug/l	0.05 lbs/day
Nickel			4600.00	ug/l	1539.91 lbs/day
Selenium	ug/l	lbs/day			
Silver	ug/l	lbs/day			
Thallium			0.47	ug/l	0.16 lbs/day
Zinc					

There are additional standards that apply to this receiving water, but were not considered in this modeling/waste load allocation analysis.

VII. Mathematical Modeling of Stream Quality

Model configuration was accomplished utilizing standard modeling procedures. Data points were plotted and coefficients adjusted as required to match observed data as closely as possible.

The modeling approach used in this analysis included one or a combination of the following models.

(1) The Utah River Model, Utah Division of Water Quality, 1992. Based upon STREAMDO IV (Region VIII) and Supplemental Ammonia Toxicity Models; EPA Region VIII, Sept. 1990 and QUAL2E (EPA, Athens, GA).

(2) Utah Ammonia/Chlorine Model, Utah Division of Water Quality, 1992.

(3) AMMTOX Model, University of Colorado, Center of Limnology, and EPA Region 8

(4) Principles of Surface Water Quality Modeling and Control. Robert V. Thomann, et.al. Harper Collins Publisher, Inc. 1987, pp. 644.

Coefficients used in the model were based, in part, upon the following references:

(1) Rates, Constants, and Kinetics Formulations in Surface Water Quality Modeling. Environmental Research Laboratory, Office of Research and Development, U.S. Environmental Protection Agency, Athens Georgia. EPA/600/3-85/040 June 1985.

(2) Principles of Surface Water Quality Modeling and Control. Robert V. Thomann, et.al. Harper Collins Publisher, Inc. 1987, pp. 644.

VIII. Modeling Information

The required information for the model may include the following information for both the upstream conditions at low flow and the effluent conditions:

Flow, Q, (cfs or MGD)	D.O. mg/l
Temperature, Deg. C.	Total Residual Chlorine (TRC), mg/l
pH	Total NH3-N, mg/l
BOD5, mg/l	Total Dissolved Solids (TDS), mg/l
Metals, ug/l	Toxic Organics of Concern, ug/l

Other Conditions

In addition to the upstream and effluent conditions, the models require a variety of physical and biological coefficients and other technical information. In the process of actually establishing the permit limits for an effluent, values are used based upon the available data, model calibration, literature values, site visits and best professional judgement.

Model Inputs

The following is upstream and discharge information that was utilized as inputs for the analysis. Dry washes are considered to have an upstream flow equal to the flow of the discharge.

Current Upstream Information

	Stream Critical Low Flow cfs	Temp. Deg. C	pH	T-NH3 mg/l as N	BOD5 mg/l	DO mg/l	TRC mg/l	TDS mg/l
Summer (Irrig. Season)	62.0	22.8	8.3	0.04	1.00	6.71	0.00	2597.7
Fall	198.4	6.2	8.4	0.04	1.00	---	0.00	663.6
Winter	538.6	5.8	8.2	0.11	1.00	---	0.00	663.6
Spring	87.5	18.0	8.3	0.02	1.00	---	0.00	663.6

Dissolved Metals	Al ug/l	As ug/l	Cd ug/l	CrIII ug/l	CrVI ug/l	Copper ug/l	Fe ug/l	Pb ug/l
All Seasons	1.59*	0.53*	0.053*	0.53*	2.65*	0.53*	0.83*	0.53*

Dissolved Metals	Hg ug/l	Ni ug/l	Se ug/l	Ag ug/l	Zn ug/l	Boron ug/l		
All Seasons	0.0000	0.53*	1.06*	0.1*	0.053*	10.0		* 1/2 MDL

Projected Discharge Information

Season	Flow, MGD	Temp.	TDS mg/l	TDS tons/day
Summer	0.07000	21.4	1511.00	0.44097
Fall	0.07000	7.5		
Winter	0.07000	2.5		
Spring	0.07000	16.3		

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

IX. 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 coincide with the environmental conditions expected at low stream flows.

Effluent Limitation for Flow based upon Water Quality Standards

In-stream criteria of downstream segments will be met with an effluent flow maximum value as follows:

Season	Daily Average	
Summer	0.070 MGD	0.108 cfs
Fall	0.070 MGD	0.108 cfs
Winter	0.070 MGD	0.108 cfs
Spring	0.070 MGD	0.108 cfs

Flow Requirement or Loading Requirement

The calculations in this wasteload analysis utilize the maximum effluent discharge flow of 0.07 MGD. If the discharger is allowed to have a flow greater than 0.07 MGD during 7Q10 conditions, and effluent limit concentrations as indicated, then water quality standards will be violated. In order to prevent this from occuring, the permit writers must include the discharge flow limititation as indicated above; or, include loading effluent limits in the permit.

Effluent Limitation for Whole Effluent Toxicity (WET) based upon WET Policy

Effluent Toxicity will not occur in downstream segements if the values below are met.

WET Requirements	LC50 >	1.2%	Effluent	[Acute]
	IC25 >	0.2%	Effluent	[Chronic]

Effluent Limitation for Biological Oxygen Demand (BOD) based upon Water Quality Standards or Regulations

In-stream criteria of downstream segments for Dissolved Oxygen will be met with an effluent BOD limitation as follows:

Season	Concentration	
Summer	25.0 mg/l as BOD5	14.6 lbs/day
Fall	25.0 mg/l as BOD5	14.6 lbs/day
Winter	25.0 mg/l as BOD5	14.6 lbs/day
Spring	25.0 mg/l as BOD5	14.6 lbs/day

Effluent Limitation for Dissolved Oxygen (DO) based upon Water Quality Standards

In-stream criteria of downstream segments for Dissolved Oxygen will be met with an effluent D.O. limitation as follows:

Season	**Concentration**
Summer	4.00
Fall	4.00
Winter	4.00
Spring	4.00

Effluent Limitation for Total Ammonia based upon Water Quality Standards

In-stream criteria of downstream segments for Total Ammonia will be met with an effluent limitation (expressed as Total Ammonia as N) as follows:

Season		**Concentration**		**Load**	
Summer	4 Day Avg. - Chronic	519.7	mg/l as N	303.4	lbs/day
	1 Hour Avg. - Acute	941.8	mg/l as N	549.7	lbs/day
Fall	4 Day Avg. - Chronic	841.5	mg/l as N	491.1	lbs/day
	1 Hour Avg. - Acute	1082.4	mg/l as N	631.8	lbs/day
Winter	4 Day Avg. - Chronic	6785.4	mg/l as N	3,960.5	lbs/day
	1 Hour Avg. - Acute	9528.5	mg/l as N	5,561.6	lbs/day
Spring	4 Day Avg. - Chronic	1898.8	mg/l as N	0.0	lbs/day
	1 Hour Avg. - Acute	2448.3	mg/l as N	0.0	lbs/day

Acute limit calculated with an Acute Zone of Initial Dilution (ZID) to be equal to 50.%.

Effluent Limitation for Total Residual Chlorine based upon Water Quality Standards

In-stream criteria of downstream segments for Total Residual Chlorine will be met with an effluent limitation as follows:

Season		Concentration		Load	
Summer	4 Day Avg. - Chronic	6.252	mg/l	3.65	lbs/day
	1 Hour Avg. - Acute	5.429	mg/l	3.17	lbs/day
Fall	4 Day Avg. - Chronic	19.981	mg/l	11.66	lbs/day
	1 Hour Avg. - Acute	17.333	mg/l	10.12	lbs/day
Winter	4 Day Avg. - Chronic	54.221	mg/l	31.65	lbs/day
	1 Hour Avg. - Acute	47.018	mg/l	27.44	lbs/day
Spring	4 Day Avg. - Chronic	8.818	mg/l	0.00	lbs/day
	1 Hour Avg. - Acute	7.655	mg/l	0.00	lbs/day

Effluent Limitations for Total Dissolved Solids based upon Water Quality Standards

Season		Concentration		Load	
Summer	Maximum, Acute	1200.0	mg/l	0.35	tons/day
Fall	Maximum, Acute	1200.0	mg/l	0.35	tons/day
Winter	Maximum, Acute	1200.0	mg/l	0.35	tons/day
Spring	4 Day Avg. - Chronic	1200.0	mg/l	0.35	tons/day

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Effluent Limitations for Total Recoverable Metals based upon Water Quality Standards

In-stream criteria of downstream segments for Dissolved Metals will be met with an effluent limitation as follows (based upon a hardness of 281.26 mg/l):

	4 Day Average Concentration		Load		1 Hour Average Concentration		Load	
Aluminum	N/A		N/A		214,768.5	ug/l	125.4	lbs/day
Arsenic	8.56E+04	ug/l	32.3	lbs/day	97,443.7	ug/l	56.9	lbs/day
Cadmium	988.58	ug/l	0.4	lbs/day	1,730.7	ug/l	1.0	lbs/day
Chromium III	1.15E+05	ug/l	43.3	lbs/day	1.21E+06	ug/l	705.0	lbs/day
Chromium VI	4,033.07	ug/l	1.5	lbs/day	3,458.4	ug/l	2.0	lbs/day
Copper	1.25E+04	ug/l	4.7	lbs/day	10,427.1	ug/l	6.1	lbs/day
Iron	N/A		N/A		286,910.5	ug/l	167.5	lbs/day
Lead	6.35E+03	ug/l	2.4	lbs/day	87,258.2	ug/l	50.9	lbs/day
Mercury	6.88	ug/l	0.0	lbs/day	689.4	ug/l	0.4	lbs/day
Nickel	7.13E+04	ug/l	26.9	lbs/day	323,046.4	ug/l	188.6	lbs/day
Selenium	1,727.94	ug/l	0.7	lbs/day	4,830.6	ug/l	2.8	lbs/day
Silver	N/A	ug/l	N/A	lbs/day	6,438.1	ug/l	3.8	lbs/day
Zinc	1.65E+05	ug/l	62.3	lbs/day	82,645.1	ug/l	48.2	lbs/day
Cyanide	2,982.39	ug/l	1.1	lbs/day	6,319.9	ug/l	3.7	lbs/day

Effluent Limitations for Heat/Temperature based upon Water Quality Standards

Summer	100.0	Deg. C.	212.0	Deg. F
Fall	100.0	Deg. C.	212.0	Deg. F
Winter	100.0	Deg. C.	212.0	Deg. F

Spring	100.0	Deg. C.	212.0	Deg. F

Effluent Limitations for Organics [Pesticides]
Based upon Water Quality Standards

In-stream criteria of downstream segments for Organics [Pesticides] will be met with an effluent limit as follows:

	4 Day Average Concentration		Load		1 Hour Average Concentration		Load	
Aldrin					1.5E+00	ug/l	1.35E-03	lbs/day
Chlordane	4.30E-03	ug/l	2.51E-03	lbs/day	1.2E+00	ug/l	1.08E-03	lbs/day
DDT, DDE	1.00E-03	ug/l	5.84E-04	lbs/day	5.5E-01	ug/l	4.97E-04	lbs/day
Dieldrin	5.60E-02	ug/l	3.27E-02	lbs/day	2.4E-01	ug/l	2.17E-04	lbs/day
Endosulfan	5.60E-02	ug/l	3.27E-02	lbs/day	1.1E-01	ug/l	9.93E-05	lbs/day
Endrin	3.60E-02	ug/l	2.10E-02	lbs/day	8.6E-02	ug/l	7.77E-05	lbs/day
Guthion	0.00E+00	ug/l	0.00E+00	lbs/day	1.0E-02	ug/l	9.03E-06	lbs/day
Heptachlor	3.80E-03	ug/l	2.22E-03	lbs/day	2.6E-01	ug/l	2.35E-04	lbs/day
Lindane	8.00E-02	ug/l	4.67E-02	lbs/day	1.0E+00	ug/l	9.03E-04	lbs/day
Methoxychlor	0.00E+00	ug/l	0.00E+00	lbs/day	3.0E-02	ug/l	2.71E-05	lbs/day
Mirex	0.00E+00	ug/l	0.00E+00	lbs/day	1.0E-02	ug/l	9.03E-06	lbs/day
Parathion	0.00E+00	ug/l	0.00E+00	lbs/day	4.0E-02	ug/l	3.61E-05	lbs/day
PCB's	1.40E-02	ug/l	8.17E-03	lbs/day	2.0E+00	ug/l	1.81E-03	lbs/day
Pentachlorophenol	1.30E+01	ug/l	7.59E+00	lbs/day	2.0E+01	ug/l	1.81E-02	lbs/day
Toxephene	2.00E-04	ug/l	1.17E-04	lbs/day	7.3E-01	ug/l	6.59E-04	lbs/day

Effluent Targets for Pollution Indicators
Based upon Water Quality Standards

In-stream criteria of downstream segments for Pollution Indicators will be met with an effluent limit as follows:

	1 Hour Average			
	Concentration		Loading	
Gross Beta (pCi/l)	50.0	pCi/L		
BOD (mg/l)	5.0	mg/l	2.9	lbs/day
Nitrates as N	4.0	mg/l	2.3	lbs/day
Total Phosphorus as P	0.05	mg/l	0.0	lbs/day
Total Suspended Solids	90.0	mg/l	52.5	lbs/day

Note: Pollution indicator targets are for information purposes only.

Effluent Limitations for Protection of Human Health [Toxics Rule]
Based upon Water Quality Standards (Most stringent of 1C or 3A & 3B as appropriate.)

In-stream criteria of downstream segments for Protection of Human Health [Toxics] will be met with an effluent limit as follows:

	Maximum Concentration			
	Concentration		Load	
Toxic Organics				
Acenaphthene	5.16E+04	ug/l	3.01E+01	lbs/day
Acrolein	2.29E+05	ug/l	1.34E+02	lbs/day
Acrylonitrile	4.01E+03	ug/l	2.34E+00	lbs/day
Benzene	2.93E+04	ug/l	1.71E+01	lbs/day
Benzidine		ug/l		lbs/day
Carbon tetrachloride	2.87E+03	ug/l	1.67E+00	lbs/day
Chlorobenzene	4.59E+05	ug/l	2.68E+02	lbs/day
1,2,4-Trichlorobenzene				
Hexachlorobenzene	4.42E-01	ug/l	2.58E-04	lbs/day
1,2-Dichloroethane	1.15E+06	ug/l	6.70E+02	lbs/day
1,1,1-Trichloroethane				
Hexachloroethane	5.74E+01	ug/l	3.35E-02	lbs/day
1,1-Dichloroethane				
1,1,2-Trichloroethane	5.10E+03	ug/l	2.98E+00	lbs/day
1,1,2,2-Tetrachloroethane	1.72E+03	ug/l	1.00E+00	lbs/day
Chloroethane				
Bis(2-chloroethyl) ether	1.26E+03	ug/l	7.36E-01	lbs/day
2-Chloroethyl vinyl ether				
2-Chloronaphthalene	5.74E+05	ug/l	3.35E+02	lbs/day
2,4,6-Trichlorophenol	1.61E+03	ug/l	9.37E-01	lbs/day
p-Chloro-m-cresol				
Chloroform (HM)	1.15E+06	ug/l	6.70E+02	lbs/day
2-Chlorophenol	4.59E+05	ug/l	2.68E+02	lbs/day
1,2-Dichlorobenzene	1.72E+06	ug/l	1.00E+03	lbs/day
1,3-Dichlorobenzene	5.74E+03	ug/l	3.35E+00	lbs/day
1,4-Dichlorobenzene	5.16E+05	ug/l	3.01E+02	lbs/day
3,3'-Dichlorobenzidine	8.60E+01	ug/l	5.02E-02	lbs/day
1,1-Dichloroethylene	1.15E+07	ug/l	6.70E+03	lbs/day
1,2-trans-Dichloroethylene1				
2,4-Dichlorophenol	3.44E+04	ug/l	2.01E+01	lbs/day
1,2-Dichloropropane	1.78E+04	ug/l	1.04E+01	lbs/day
1,3-Dichloropropylene	9.75E+05	ug/l	5.69E+02	lbs/day
2,4-Dimethylphenol	1.72E+06	ug/l	1.00E+03	lbs/day
2,4-Dinitrotoluene	9.75E+02	ug/l	5.69E-01	lbs/day
2,6-Dinitrotoluene				
1,2-Diphenylhydrazine	1.15E+02	ug/l	6.70E-02	lbs/day

Ethylbenzene	7.46E+04	ug/l	4.35E+01	lbs/day
Fluoranthene	1.15E+04	ug/l	6.70E+00	lbs/day
4-Chlorophenyl phenyl ether				
4-Bromophenyl phenyl ether				
Bis(2-chloroisopropyl) ether	3.73E+07	ug/l	2.18E+04	lbs/day
Bis(2-chloroethoxy) methane				
Methylene chloride (HM)	5.74E+05	ug/l	3.35E+02	lbs/day
Methyl chloride (HM)				
Methyl bromide (HM)				
Bromoform (HM)	6.88E+04	ug/l	4.02E+01	lbs/day
Dichlorobromomethane(HM)	1.55E+04	ug/l	9.04E+00	lbs/day
Chlorodibromomethane (HM)	1.20E+04	ug/l	7.03E+00	lbs/day
Hexachlorocyclopentadiene	2.29E+03	ug/l	1.34E+00	lbs/day
Isophorone	1.03E+06	ug/l	6.03E+02	lbs/day
Naphthalene				
Nitrobenzene	3.44E+05	ug/l	2.01E+02	lbs/day
2-Nitrophenol				
4-Nitrophenol				
2,4-Dinitrophenol	8.03E+06	ug/l	4.69E+03	lbs/day
4,6-Dinitro-o-cresol	4.39E+05	ug/l	2.56E+02	lbs/day
N-Nitrosodimethylamine	1.72E+03	ug/l	1.00E+00	lbs/day
N-Nitrosodiphenylamine	3.44E+03	ug/l	2.01E+00	lbs/day
N-Nitrosodi-n-propylamine	2.93E+02	ug/l	1.71E-01	lbs/day
Pentachlorophenol	2.29E+01	ug/l	1.34E-02	lbs/day
Phenol	1.72E+08	ug/l	1.00E+05	lbs/day
Bis(2-ethylhexyl)phthalate	2.12E+02	ug/l	1.24E-01	lbs/day
Butyl benzyl phthalate	5.74E+01	ug/l	3.35E-02	lbs/day
Di-n-butyl phthalate	1.72E+04	ug/l	1.00E+01	lbs/day
Di-n-octyl phthlate				
Diethyl phthalate	3.44E+05	ug/l	2.01E+02	lbs/day
Dimethyl phthlate	1.15E+06	ug/l	6.70E+02	lbs/day
Benzo(a)anthracene (PAH)	7.46E-01	ug/l	4.35E-04	lbs/day
Benzo(a)pyrene (PAH)	7.46E-02	ug/l	4.35E-05	lbs/day
Benzo(b)fluoranthene (PAH)	7.46E-01	ug/l	4.35E-04	lbs/day
Benzo(k)fluoranthene (PAH)	7.46E+00	ug/l	4.35E-03	lbs/day
Chrysene (PAH)	7.46E+01	ug/l	4.35E-02	lbs/day
Acenaphthylene (PAH)				
Anthracene (PAH)				
Dibenzo(a,h)anthracene (PAH)	1.78E+01	ug/l	1.04E-02	lbs/day
Indeno(1,2,3-cd)pyrene (PAH)	1.78E+01	ug/l	1.04E-02	lbs/day
Pyrene (PAH)	1.72E+04	ug/l	1.00E+01	lbs/day
Tetrachloroethylene	2.98E+05	ug/l	1.74E+02	lbs/day
Toluene	2.98E+05	ug/l	1.74E+02	lbs/day
Trichloroethylene	4.01E+03	ug/l	2.34E+00	lbs/day
Vinyl chloride	9.18E+02	ug/l	5.36E-01	lbs/day

Pesticides				
Aldrin	4.42E-04	ug/l	2.58E-07	lbs/day
Dieldrin	6.88E-04	ug/l	4.02E-07	lbs/day
Chlordane	1.84E-01	ug/l	1.07E-04	lbs/day
4,4'-DDT	1.72E-02	ug/l	1.00E-05	lbs/day
4,4'-DDE	1.03E-02	ug/l	6.03E-06	lbs/day
4,4'-DDD	6.88E-02	ug/l	4.02E-05	lbs/day
alpha-Endosulfan	1.72E+04	ug/l	1.00E+01	lbs/day
beta-Endosulfan	2.29E+04	ug/l	1.34E+01	lbs/day
Endosulfan sulfate	2.29E+04	ug/l	1.34E+01	lbs/day
Endrin	1.72E+01	ug/l	1.00E-02	lbs/day
Endrin aldehyde	5.74E+02	ug/l	3.35E-01	lbs/day
Heptachlor	3.38E-03	ug/l	1.98E-06	lbs/day
Heptachlor epoxide				
PCB's				
PCB 1242 (Arochlor 1242)	2.58E-02	ug/l	1.51E-05	lbs/day
PCB-1254 (Arochlor 1254)	2.58E-02	ug/l	1.51E-05	lbs/day
PCB-1221 (Arochlor 1221)	2.58E-02	ug/l	1.51E-05	lbs/day
PCB-1232 (Arochlor 1232)	2.58E-02	ug/l	1.51E-05	lbs/day
PCB-1248 (Arochlor 1248)	2.58E-02	ug/l	1.51E-05	lbs/day
PCB-1260 (Arochlor 1260)	2.58E-02	ug/l	1.51E-05	lbs/day
PCB-1016 (Arochlor 1016)	2.58E-02	ug/l	1.51E-05	lbs/day
Pesticide				
Toxaphene	4.30E-01	ug/l	2.51E-04	lbs/day
Metals				
Antimony		ug/l		lbs/day
Arsenic		ug/l		lbs/day
Asbestos		ug/l		lbs/day
Beryllium				
Cadmium				
Chromium (III)				
Chromium (VI)				
Copper		ug/l		lbs/day
Cyanide		ug/l		lbs/day
Lead				
Mercury		ug/l		lbs/day
Nickel		ug/l		lbs/day
Selenium				
Silver				
Thallium		ug/l		lbs/day
Zinc				
Dioxin				
Dioxin (2,3,7,8-TCDD)	8.03E-06	ug/l	4.69E-09	lbs/day

Metals Effluent Limitations for Protection of All Beneficial Uses
Based upon Water Quality Standards and Toxics Rule

	Class 4 Acute Agricultural ug/l	Class 3 Acute Aquatic Wildlife ug/l	Acute Toxics Drinking Water Source ug/l	Acute Toxics Wildlife ug/l	1C Acute Health Criteria ug/l	Acute Most Stringent ug/l	Class 3 Chronic Aquatic Wildlife ug/l
Aluminum		214768.5				214768.5	N/A
Antimony				367063.5		367063.5	
Arsenic	57353.7	97443.7			0.0	57353.7	85575.3
Barium						0.0	
Beryllium						0.0	
Cadmium	5689.9	1730.7			0.0	1730.7	988.6
Chromium (III)		1207915.1			0.0	1207915.1	114834.1
Chromium (VI)	56898.5	3458.4			0.0	3458.38	4033.07
Copper	114252.2	10427.1				10427.1	12491.5
Cyanide		6319.9	2.3E+05			6319.9	2982.4
Iron		286910.5				286910.5	
Lead	56898.5	87258.2			0.0	56898.5	6351.4
Mercury		689.44		86.03	0.0	86.03	6.879
Nickel		323046.4		2638268.9		323046.4	71303.3
Selenium	27766.5	4830.6			0.0	4830.6	1727.9
Silver		6438.1			0.0	6438.1	
Thallium				269.6		269.6	
Zinc		82645.1				82645.1	165002.5
Boron	430152.5					430152.5	

Summary Effluent Limitations for Metals [Wasteload Allocation, TMDL]
[If Acute is more stringent than Chronic, then the Chronic takes on the Acute value.]

	WLA Acute ug/l	WLA Chronic ug/l	
Aluminum	214768.5	N/A	
Antimony	3.67E+05		
Arsenic	57353.7	85575.3	Acute Controls
Asbestos	0.00E+00		
Barium			
Beryllium			
Cadmium	1730.7	988.6	
Chromium (III)	1207915.1	114834	
Chromium (VI)	3458.4	4033.1	Acute Controls
Copper	10427.1	12491.5	Acute Controls
Cyanide	6319.9	2982.4	
Iron	286910.5		
Lead	56898.5	6351.4	
Mercury	86.031	6.879	
Nickel	323046.4	71303	
Selenium	4830.6	1727.9	
Silver	6438.1	N/A	
Thallium	269.6		
Zinc	82645.1	165002.5	Acute Controls
Boron	430152.53		

Other Effluent Limitations are based upon R317-1.

E. coli	126.0	organisms per 100 ml

X. Antidegradation Considerations

The Utah Antidegradation Policy allows for degradation of existing quality where it is determined that such lowering of water quality is necessary to accommodate important economic or social development in the area in which the waters are protected [R317-2-3]. It has been determined that certain chemical parameters introduced by this discharge will cause an increase of the concentration of said parameters in the receiving waters. Under no conditions will the increase in concentration be allowed to interfere with existing instream water uses.

The antidegradation rules and procedures allow for modification of effluent limits less than those based strictly upon mass balance equations utilizing 100% of the assimilative capacity of the receiving water. Additional factors include considerations for "Blue-ribbon" fisheries, special recreational areas, threatened and endangered species, and drinking water sources.

An Antidegradation Level I Review was conducted on this discharge and its effect on the receiving water. Based upon that review, it has been determined that an Antidegradation Level II Review is not required. The proposed permit is a simple renewal with no increase in flow or concentration over that which was approved in the previous permit.

XI. Colorado River Salinity Forum Considerations

Discharges in the Colorado River Basin are required to have their discharge at a TDS loading of less than 1.00 tons/day unless certain exemptions apply. Refer to the Forum's Guidelines for additional information allowing for an exceedence of this value.
This doesn’t apply to facilities that do not discharge to the Colorado River Basin.

XII. Summary Comments

The mathematical modeling and best professional judgement indicate that violations of receiving water beneficial uses with their associated water quality standards, including important down-stream segments, will not occur for the evaluated parameters of concern as discussed above if the effluent limitations indicated above are met.

XIII. Notice of UPDES Requirement

This Addendum to the Statement of Basis does not authorize any entity or party to discharge to the waters of the State of Utah. That authority is granted through a UPDES permit issued by the Utah Division of Water Quality. The numbers presented here may be changed as a function of other factors. Dischargers are strongly urged to contact the Permits Section for further information. Permit writers may utilize other information to adjust these limits and/or to determine other limits based upon best available technology and other considerations provided that the values in this wasteload analysis [TMDL] are not compromised. See special provisions in Utah Water Quality Standards for adjustments in the Total Dissolved Solids values based upon background concentration.

XIV. Special Considerations - TMDL

The Corinne Lagoons discharge to a segment of the Bear River that is 303(d) listed for total phosphorous (TP).
A TP TMDL was completed for the Bear River on September 9th, 2002.
The TMDL indicated that the three point sources in this segment, Corinne, Bear River and Tremonton cities, accounted for approximately 3% of the total phosphorous load to the Lower Bear River. The remaining 97% is attributed to nonpoint sources. Given that the non-point source TP loads overshadow the point source contributions, the time-frame for including TP effluent limits for the small towns of Bear River City, Tremonton and Corinne is not urgent. The Division of Water Quality recently completed a TMDL for Cutler Reservoir (immediately upstream of the lower Bear River segment). Following completion of the Cutler Reservoir TMDL, the Lower Bear River TMDL will be redone.

In 2018, an Implementation Plan developed by the Utah Division of Water Quality allocated 2.5 lb/d of total phosphors (previously the Corinne Lagoons were allocated 2.0 lb/d of total phosphorus).
The Lower Bear River Implementation Plan is based on records from May 2011 through June 2016 where average monthly flows range from 0.06 to 0.22 mgd. Insufficient data are available to evaluate trends.
Discharge TP concentrations range from 0.69 mg/l to 4.05 mg/l.
There do not appear to be any discernible seasonal or long-term trends in discharge TP concentration.
TP discharge loads range from 0.20 lb/d to 18.14 lb/d. As with concentration, insufficient data are available to evaluate trends. Additional TP data continues to be collected.
A WLA of 2.5 lb/d was calculated by multiplying the average annual load (2.0 lb/d) by 125 percent.
A daily average load for each calendar month was calculated by averaging paired TP and flow from June 2011 through May 2016. The daily average load for each month was then multiplied by the number of days per month and summed; the summation was divided by 365 days per year to yield the average annual load in lb/d.

The current average annual load is 2.0 lb/d, which was calculated using monthly averages of paired TP and effluent flow data from June 2011 through May 2016. Implementing the phosphorus loading cap (would result in an increase (on average) of 0.5 lb/d.

No assimilative capacity exists for this pollutant. Effluent limit equals the water quality standard.

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File Name: Corrine_WLA_12-20-2025.xls

ATTACHMENT 4

Reasonable Potential Analysis

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REASONABLE POTENTIAL ANALYSIS

The DWQ has worked to improve our RP for the inclusion of limits for parameters in the permit by using an EPA provided model. A Copy of the Reasonable Potential Analysis Guidance document is available upon request.

Initial screening for metal values that were submitted through the DMRs showed that all monitored parameters were well below the maximum allowable concentrations. A copy of the initial screening is included in the RP Screening Results table in this attachment. The initial screening demonstrated that monitoring results were sufficiently low and that there is no reasonable potential for these parameters to cause or contribute to an exceedance of water quality standards. Therefore, the full RP model was not necessary for these parameters.

RP Screening Results

Effluent											
Metals	**Arsenic**	**Cadmium**	**Chromium**	**Copper**	**Lead**	**Molybdenum**	**Nickel**	**Selenium**	**Silver**	**Zinc**	**Cyanide**
Acute Criterion (mg/L)	214.0	1.73	1,210.0	10.42	87.25	NA	323.04	4.83	6.43	82.64	6.32
Chronic Criterion (mg/L)	85.0	0.989	115.0	12.50	6.35	NA	71.30	1.72	NA	165.0	2.98
Max Values (mg/L)	0.0161	Non-Detect	0.0086	0.0417	0.0005	0.0135	0.0031	0.0046	Non-Detect	0.05	0.009

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