

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

UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES) PERMITS

Minor Industrial Permit No. **UT0022896**

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

**PACIFICORP**

is hereby authorized to discharge from

**PACIFICORP - COTTONWOOD/WILBERG MINE**

to receiving waters named **Cottonwood Canyon Creek**,

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

This permit shall become effective on May 1, 2024.

This permit expires at midnight on April 30, 2029.

Signed this seventh day of February, 2024.



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John K. Mackey, P.E.  
Director

DWQ-2024-000474

Table of Contents

<u>Outline</u>	<u>Page Number</u>
I. DISCHARGE LIMITATIONS AND REPORTING REQUIREMENTS.....	5
A. Description of Discharge Points .....	5
B. Narrative Standard .....	5
C. Specific Limitations and Self-Monitoring Requirements .....	5
D. Reporting of Monitoring Results .....	7
II. PRETREATMENT REQUIREMENTS.....	8
A. Definitions .....	8
B. Pretreatment Monitoring and Reporting Requirements.....	9
C. Industrial Wastes.....	9
D. General and Specific Prohibitions .....	9
E. Significant Industrial Users Discharging to the POTW .....	9
III. STORM WATER REQUIREMENTS.....	10
IV. MONITORING, RECORDING & GENERAL REPORTING REQUIREMENTS.....	11
A. Representative Sampling .....	11
B. Monitoring Procedures.....	11
C. Penalties for Tampering .....	11
D. Compliance Schedules.....	11
E. Additional Monitoring by the Permittee .....	11
F. Records Contents.....	11
G. Retention of Records .....	11
H. Twenty-four Hour Notice of Noncompliance Reporting.....	11
I. Other Noncompliance Reporting.....	12
J. Inspection and Entry .....	12
V. COMPLIANCE RESPONSIBILITIES.....	14
A. Duty to Comply .....	14
B. Penalties for Violations of Permit Conditions .....	14
C. Need to Halt or Reduce Activity not a Defense.....	14
D. Duty to Mitigate.....	14
E. Proper Operation and Maintenance.....	14
F. Removed Substances.....	14
G. Bypass of Treatment Facilities .....	14
H. Upset Conditions .....	16
I. Toxic Pollutants.....	16
J. Changes in Discharge of Toxic Substances .....	16
VI. GENERAL REQUIREMENTS.....	18
A. Planned Changes.....	18
B. Anticipated Noncompliance.....	18
C. Permit Actions .....	18
D. Duty to Reapply.....	18
E. Duty to Provide Information .....	18
F. Other Information.....	18
G. Signatory Requirements.....	18
H. Penalties for Falsification of Reports.....	19
I. Availability of Reports .....	19
J. Oil and Hazardous Substance Liability.....	19
K. Property Rights .....	20
L. Severability .....	20
M. Transfers.....	20
N. State or Federal Laws .....	20

O. Water Quality - Reopener Provision..... 21  
P. Toxicity Limitation - Reopener Provision..... 21  
VII. DEFINITIONS ..... 22  
    A. Wastewater ..... 22

I. DISCHARGE LIMITATIONS AND REPORTING REQUIREMENTS

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

Outfall Number

001

Location of Discharge Outfall

Located at latitude 39°19'03"N and longitude 111°11'22"W. Continuous groundwater discharge from reclaimed mine site to culvert in Cottonwood Canyon Creek drainage.

- B. Narrative Standard. It shall be unlawful, and a violation of this permit, for the Permittee to discharge or place any waste or other substance in such a way as will be or may become offensive such as unnatural deposits, floating debris, oil, scum, or other nuisances such as color, odor or taste, or cause conditions which produce undesirable aquatic life or which produce objectionable tastes in edible aquatic organisms; or result in concentrations or combinations of substances which produce undesirable physiological responses in desirable resident fish, or other desirable aquatic life, or undesirable human health effects, as determined by a bioassay or other tests performed in accordance with standard procedures.
- C. Specific Limitations and Self-Monitoring Requirements.
1. Effective immediately and lasting through the life of this permit, there shall be no acute or chronic toxicity in Outfall 001 as defined in *Part VII*, and determined by test procedures described in this permit.
  2. Effective immediately and lasting through the life 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:

**PART I**  
**DISCHARGE PERMIT NO. UT0022896**

Parameter, Units	Effluent Limitations *a			
	Maximum Monthly Avg	Maximum Weekly Avg	Daily Minimum	Daily Maximum
Total Flow, MGD	0.54	--	--	--
TSS, mg/L	20	30	--	--
Total Iron, mg/L	--	--	--	1.0
TDS, mg/L	1136	--	--	Report
TDS, lbs/day *b	--	--	--	2000
pH, Standard Units	--	--	6.5	9
Temperature, °C	--	--	--	Report
Oil & Grease, mg/L *c	--	--	--	10.0

Self-Monitoring and Reporting Requirements *a*d			
Parameter	Frequency	Sample Type	Units
Total Flow	Monthly	Measured	MGD
TSS	Monthly	Grab	mg/L
Total Iron	Monthly	Grab	mg/L
TDS	Monthly	Grab	mg/L
TDS *b	Monthly	Grab	lbs/day
pH	Monthly	Grab	SU
Temperature	Monthly	Grab	°C
Oil & Grease *c	Monthly	Visual/Grab	mg/L

\*a See Definitions, *Part VII*, for definition of terms.

\*b No lbs/tons per day loading limit will be applied if the concentration of TDS in the discharge is equal to or less than 500 mg/L as a thirty-day average. However, if the thirty-day average TDS concentration exceeds 500 mg/L at any Outfall, then the permittee cannot discharge more than 1 ton per day (or 366 tons per year) as a sum from all discharge points exceeding 500 mg/L as a thirty-day average. If the permittee cannot achieve one ton per day (or 366 tons per year) as a sum from all applicable Outfalls, the permittee will be required to account for the excess salinity/TDS tonnage by developing a treatment process, participating in a salinity off-set program, or other type of mechanism to remove or offset the excess salinity/TDS. The selection of a salinity control program, or other type of treatment process, must be approved by the Director of the Division of Water Quality.

\*c Oil & Grease shall be sampled when sheen is present or observed. If no sheen is present or visible, report NA. In addition to monthly monitoring for oil and grease, a visual inspection for floating solids and visible foam shall be performed monthly at all Outfalls. There shall be no sheen, floating solids, or visible foam in other than trace amounts.

\*d Samples collected in compliance with the monitoring requirements specified above shall be collected at outfall 001 prior to mixing with the receiving water.

D. Reporting of Monitoring Results.

1. Reporting of Wastewater Monitoring Results Monitoring results obtained during the previous month shall be summarized for each month and reported on a Discharge Monitoring Report Form (EPA No. 3320-1)\* or by NetDMR, post-marked or entered into NetDMR no later than the 28<sup>th</sup> day of the month following the completed reporting period. If no discharge occurs during the reporting period, “no discharge” shall be reported. Legible copies of these, and all other reports including whole effluent toxicity (WET) test reports required herein, shall be signed and certified in accordance with the requirements of *Signatory Requirements (see Part VII.G)*, and submitted by NetDMR, or to the Division of Water Quality at the following address:

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

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

**PART II**  
**DISCHARGE PERMIT NO. UT0022896**  
**PRETREATMENT**

II. PRETREATMENT REQUIREMENTS

**This section is only applicable when the permittee discharges to a POTW.**

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

1. *Indirect Discharge* means the introduction of pollutants into a publicly-owned treatment works (POTW) from any non-domestic source regulated under section 307 (b), (c) or (d) of the CWA.
2. *Interference* means a discharge which, alone or in conjunction with a discharge or discharges from other sources, both:
  - a. Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
  - b. Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.
3. *Pass Through means* a Discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).
4. *Publicly Owned Treatment Works or POTW* means a treatment works, as defined by section 212 of the CWA, which is owned by a State or municipality (as defined by section 502(4) of the CWA). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality, as defined in section 502(4) of the CWA, which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works.
5. *Significant Industrial User (SIU)* is defined as an Industrial User discharging to a POTW that satisfies any of the following:
  - a. Has a process wastewater flow of 25,000 gallons or more per average work day;
  - b. Has a flow greater than five percent of the flow carried by the municipal system receiving the waste;
  - c. Is subject to Categorical Pretreatment Standards, or
  - d. Has a reasonable potential for adversely affecting the operation of the POTW or violating any pretreatment standard or requirement.
6. *User or Industrial User (IU)* means a source of Indirect Discharge.

**PART II**  
**DISCHARGE PERMIT NO. UT0022896**  
**PRETREATMENT**

- B. Discharge to POTW. Any wastewaters discharged to the sanitary sewer, either as a direct discharge or as a hauled waste, are subject to Federal, State and local pretreatment regulations. Pursuant to Section 307 of The Water Quality Act of 1987, the permittee shall comply with all applicable federal General Pretreatment Regulations promulgated at 40 CFR 403, the State Pretreatment Requirements at UAC R317-8-8, and any specific local discharge limitations developed by the Publicly Owned Treatment Works (POTW) accepting the wastewaters. At a minimum, the discharge into a POTW must meet the requirements of Part II. D. and E. of the permit.
- C. Hazardous Waste Notification. The permittee must notify the POTW, the EPA Regional Waste Management Director, the Director and the State hazardous waste authorities in writing if they discharge any substance into a POTW that, if otherwise disposed of, would be considered a hazardous waste under 40 CFR 261. This notification must include the name of the hazardous waste, the EPA hazardous waste number, and the type of discharge (continuous or batch).
- D. General and Specific Prohibitions.
1. General Prohibitions. The permittee may not introduce into a POTW any pollutant(s) which cause Pass Through or Interference. These general prohibitions and the specific prohibitions in paragraph 2. of this section apply to the introducing pollutants into a POTW whether or not the permittee is subject to other National Pretreatment Standards or any national, State, or local Pretreatment Requirements.
  2. Specific Prohibitions. The following pollutants shall not be introduced into a POTW:
    - a. Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW), including, but not limited to, wastestreams 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, nonbiodegradable 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;
    - h. Any trucked or hauled pollutants, except at discharge points designated by the POTW;  
or
    - i. Any pollutant that causes Pass Through or Interference at the POTW.
    - j. Any specific pollutant which exceeds any Local Limitation established by the POTW.
- E. Categorical Standards. In addition to the general and specific limitations expressed in *Part II. D.* of this section, applicable National Categorical Pretreatment Standards must be met by all Industrial Users discharging into a POTW. These standards are published in the federal regulations at *40 CFR 405 through 471.*



**PART III**  
**STORM WATER PERMITS**

III. STORM WATER REQUIREMENTS.

- A. Industrial Storm Water Permit. Based on the type of past industrial activities at the facility, the permittee may or may not be required to maintain separate coverage or an appropriate exclusion under the Multi-Sector General Permit (MSGP) for Storm Water Discharges Associated with Industrial Activities (UTR000000). If the facility has not already determined if separate MSGP coverage is required, the permittee has 30 days from when this permit is issued to submit the appropriate Notice of Intent (NOI) for the MSGP or exclusion documentation.
  
- B. Construction Storm Water Permit. Any construction at the facility that disturbs an acre or more of land, including less than an acre if it is part of a common plan of development or sale, is required to obtain coverage under the UPDES Construction General Storm Water Permit (UTRC000000). 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.

IV. MONITORING, RECORDING & GENERAL REPORTING REQUIREMENTS

- A. Representative Sampling. Samples taken in compliance with the monitoring requirements established under *Part I* shall be collected from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge. Samples of biosolids shall be collected at a location representative of the quality of biosolids immediately prior to the use-disposal practice.
- B. Monitoring Procedures. Monitoring must be conducted according to test procedures approved under Utah Administrative Code ("UAC") *R317-2-10, UAC R317-8-4.1(10)(d)*, and/or *40 CFR 503* utilizing sufficiently sensitive test methods unless other test procedures have been specified in this permit. Monitoring must be conducted according to the test procedures listed above unless another method is required under 40 CFR subchapters N or O. Sufficiently sensitive test method means: (1) The method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or (2) The method has the lowest ML of the analytical methods approved under *40 CFR part 136* or required under *40 CFR chapter I, subchapter N or O* for the measured pollutant or pollutant parameter as per *40 CFR 122.44(i)(1)(iv)(A)*.
- C. Penalties for Tampering. The *Act* provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.
- D. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date.
- E. Additional Monitoring by the Permittee. If the permittee monitors any parameter more frequently than required by this permit, using test procedures approved under Permit Part V.B., the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or the Biosolids Report Form.
- F. Records Contents. Records of monitoring information shall include:
1. The date, exact place, and time of sampling or measurements;
  2. The individual(s) who performed the sampling or measurements;
  3. The date(s) and time(s) analyses were performed;
  4. The individual(s) who performed the analyses;
  5. The analytical techniques or methods used; and,
  6. The results of such analyses.
- G. Retention of Records. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least five years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time. A copy of this UPDES permit must be maintained on site during the duration of activity at the permitted location
- H. Twenty-four Hour Notice of Noncompliance Reporting.
1. The permittee shall (orally) report any noncompliance including transportation accidents, spills, and uncontrolled runoff from biosolids transfer or land application sites which may

**PART IV**  
**DISCHARGE PERMIT NO. UT0022896**

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

2. The following occurrences of noncompliance shall initially be reported by telephone to the DWQ via the 24-hour answering service as soon as possible but no later than 24 hours from the time the permittee becomes aware of the circumstances:
  - a. Any noncompliance which may endanger health or the environment;
  - b. Any unanticipated bypass, which exceeds any effluent limitation in the permit (See *Part V.G, Bypass of Treatment Facilities.*);
  - c. Any upset which exceeds any effluent limitation in the permit (See *Part V.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 IV.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:

**PART IV**  
**DISCHARGE PERMIT NO. UT0022896**

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.

V. COMPLIANCE RESPONSIBILITIES

- A. Duty to Comply. The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of *the Act* and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity, which may result in noncompliance with permit requirements.
- B. Penalties for Violations of Permit Conditions. The *Act* provides that any person who violates a permit condition implementing provisions of the *Act* is subject to a civil penalty not to exceed \$10,000 per day of such violation. Except as provided at *Part V.G, Bypass of Treatment Facilities* and *Part V.H, Upset Conditions*, nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.
- C. Need to Halt or Reduce Activity not a Defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- D. Duty to Mitigate. The Permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit, which has a reasonable likelihood of adversely affecting human health or the environment. The permittee shall also take all reasonable steps to minimize or prevent any land application in violation of this permit.
- E. Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
- F. Removed Substances. Collected screening, grit, solids, sludge, or other pollutants removed in the course of treatment shall be disposed of in such a manner so as to prevent any pollutant from entering any waters of the state or creating a health hazard. Sludge/digester supernatant and filter backwash shall not directly enter either the final effluent or waters of the state by any other direct route.
- G. Bypass of Treatment Facilities.
1. Bypass Not Exceeding Limitations. The Permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to paragraph 2 and 3 of this section.
  2. Prohibition of Bypass.
    - a. Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:
      - (1) Bypass was unavoidable to prevent loss of human life, personal injury, or severe property damage;

**PART V**  
**DISCHARGE PERMIT NO. UT0022896**

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

**PART V**  
**DISCHARGE PERMIT NO. UT0022896**

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based permit effluent limitations if the requirements of paragraph 2 of this section are met. Director's administrative determination regarding a claim of upset cannot be judiciously challenged by the permittee until such time as an action is initiated for noncompliance.
  2. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
    - a. An upset occurred and that the permittee can identify the cause(s) of the upset;
    - b. The permitted facility was at the time being properly operated;
    - c. The permittee submitted notice of the upset as required under *Part IV.H, Twenty-four Hour Notice of Noncompliance Reporting*; and,
    - d. The permittee complied with any remedial measures required under *Part V.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.
- I. Toxic Pollutants. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of *The Water Quality Act of 1987* for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
- J. Changes in Discharge of Toxic Substances. Notification shall be provided to the Executive Secretary as soon as the permittee knows of, or has reason to believe:
1. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
    - a. One hundred micrograms per liter (100 ug/L);
    - b. Two hundred micrograms per liter (200 ug/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
    - c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with *UAC R317-8-3.4(7)* or (10); or,
    - d. The level established by the Executive Secretary in accordance with *UAC R317-8-4.2(6)*.
  2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":\

**PART V**  
**DISCHARGE PERMIT NO. UT0022896**

- a. Five hundred micrograms per liter (500 ug/L);
- b. One milligram per liter (1 mg/L) for antimony;
- c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with *UAC R317-8-3.4(9)*; or,
- d. The level established by the Executive Secretary in accordance with *UAC R317-8-4.2(6)*.



VI. 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:

**PART VI**  
**DISCHARGE PERMIT NO. UT0022896**

- a. The authorization is made in writing by a person described above and submitted to the Director, and,
  - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. A duly authorized representative may thus be either a named individual or any individual occupying a named position.
    - (1) For a corporation. By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
      - (a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who 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 above or by a duly authorized representative of that person.
  3. Changes to authorization. If an authorization under *paragraph VI.G.2* is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of *paragraph VI.G.2* must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.
  4. Certification. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that

**PART VI**  
**DISCHARGE PERMIT NO. UT0022896**

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

- H. Penalties for Falsification of Reports. The *Act* provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than \$10,000.00 per violation, or by imprisonment for not more than six months per violation, or by both.
- I. Availability of Reports. Except for data determined to be confidential under *UAC R317-8-3.2*, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the office of Director. As required by the *Act*, permit applications, permits and effluent data shall not be considered confidential.
- J. Oil and Hazardous Substance Liability. Nothing in this permit shall be construed to preclude the permittee of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under the *Act*.
- K. Property Rights. The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.
- L. Severability. The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- M. Transfers. This permit may be automatically transferred to a new permittee if:
1. The current permittee notifies the Director at least 20 days in advance of the proposed transfer date;
  2. The notice includes a written agreement between the existing and new permittee's containing a specific date for transfer of permit responsibility, coverage, and liability between them; and,
  3. The Director does not notify the existing permittee and the proposed new permittee of his or her intent to modify, or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph 2 above.
- N. State or Federal Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Sections 19-5-117 and 510 of the Clean Water Act or any applicable Federal or State

**PART VI**  
**DISCHARGE PERMIT NO. UT0022896**

transportation regulations, such as but not limited to the Department of Transportation regulations.

- O. Water Quality - Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations and compliance schedule, if necessary, if one or more of the following events occurs:
1. Water Quality Standards for the receiving water(s) to which the permittee discharges are modified in such a manner as to require different effluent limits than contained in this permit.
  2. A final wasteload allocation is developed and approved by the State and/or EPA for incorporation in this permit.
  3. Revisions to the current CWA § 208 areawide treatment management plans or promulgations/revisions to TMDLs (40 CFR 130.7) approved by the EPA and adopted by DWQ which calls for different effluent limitations than contained in this permit.
- P. 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.

VII. DEFINITIONS

A. Wastewater.

1. The "7-day (and weekly) average", other than for *E. coli* bacteria, fecal coliform bacteria, and total coliform bacteria, is the arithmetic average of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. Geometric means shall be calculated for *E. coli* bacteria, fecal coliform bacteria, and total coliform bacteria. The 7-day and weekly averages are applicable only to those effluent characteristics for which there are 7-day average effluent limitations. The calendar week, which begins on Sunday and ends on Saturday, shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for that calendar week shall be included in the data for the month that contains Saturday.
2. The "30-day (and monthly) average," other than for *E. coli* bacteria, fecal coliform bacteria and total coliform bacteria, is the arithmetic average of all samples collected during a consecutive 30-day period or calendar month, whichever is applicable. Geometric means shall be calculated for *E. coli* bacteria, fecal coliform bacteria and total coliform bacteria. The calendar month shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms.
3. "Act," means the *Utah Water Quality Act*.
4. "Acute toxicity" occurs when 50 percent or more mortality is observed for either test species at any effluent concentration (lethal concentration or "LC<sub>50</sub>").
5. "Bypass," means the diversion of waste streams from any portion of a treatment facility.
6. "Chronic toxicity" occurs when the IC<sub>25</sub> < XX% effluent. The XX% effluent is the concentration of the effluent in the receiving water, at the end of the mixing zone expressed as per cent effluent.
7. "IC<sub>25</sub>" is the concentration of toxicant (given in % effluent) that would cause a 25% reduction in mean young per female, or a 25% reduction in overall growth for the test population.
8. "Composite Samples" shall be flow proportioned. The composite sample shall, as a minimum, contain at least four (4) samples collected over the compositing period. Unless otherwise specified, the time between the collection of the first sample and the last sample shall not be less than six (6) hours nor more than 24 hours. Acceptable methods for preparation of composite samples are as follows:
  - a. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;
  - b. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample, the flow rate at the time the sample was collected may be used;

**PART VII**  
**DISCHARGE PERMIT NO. UT0022896**

- c. Constant sample volume, time interval between samples proportional to flow (i.e., sample taken every “X” gallons of flow); and,
  - d. Continuous sample volume, with sample collection rate proportional to flow rate.
9. “CWA” means *The Federal Water Pollution Control Act*, as amended, by *The Clean Water Act of 1987*.
10. “Daily Maximum” (Daily Max.) is the maximum value allowable in any single sample or instantaneous measurement.
11. “EPA,” means the United States Environmental Protection Agency.
12. “Director,” means Director of the Division of Water Quality.
13. A “grab” sample, for monitoring requirements, is defined as a single “dip and take” sample collected at a representative point in the discharge stream.
14. An “instantaneous” measurement, for monitoring requirements, is defined as a single reading, observation, or measurement.
15. “Severe Property Damage,” means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
16. “Upset,” means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

**FACT SHEET AND STATEMENT OF BASIS  
PACIFICORP COTTONWOOD-WILBERG MINE  
UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES)  
DISCHARGE RENEWAL PERMIT  
UPDES PERMIT NUMBER: UT0022896  
MINOR INDUSTRIAL FACILITY**

**FACILITY CONTACTS**

Person Name: Brett Shakespear  
Position: Signatory Authority

Person Name: Peter Brinton  
Position: Senior Reclamation Engineer

Phone Number: 801-220-2737

Permittee: PacifiCorp  
Facility Name: Cottonwood-Wilberg Mine

Mailing Address: PacifiCorp Environmental Remediation & Reclamation  
1407 West North Temple, Suite 110  
Salt Lake City, Utah 84116

Facility Location: ~10 miles northwest of Orangeville, Utah

**DESCRIPTION OF FACILITY**

The PacifiCorp Cottonwood-Wilberg Mine (Mine) is a former underground coal mine with standard industrial classification code 1222 for bituminous coal underground mining which ceased operations in 2001. The Mine portals have since been sealed and there has been no mining activity other than reclamation of the former mining areas. There is one remaining active discharge point as a result of a continuous low-flow discharge of groundwater from the former mine portal pipeline located in Emery County, Utah at latitude 39°19'03"N and longitude 111°11'22"W (Outfall 001). Outfall 001 has had an average daily flow rate of 0.042 million gallons per day (MGD) discharging to a culvert into Cottonwood Canyon Creek since the Mine operations ceased in 2001. Since then, all other previously permitted discharge points have been removed from service upon final reclamation as completed in 2019. This renewal permit will authorize the discharge of groundwater from Outfall 001 during the next five years as appropriate.

**SUMMARY OF CHANGES FROM PREVIOUS PERMIT**

There are only two proposed changes with this permit renewal. The first change is regarding the Stormwater permit provisions, which have been removed as part of a Division of Water Quality (DWQ) programmatic separation of the previously combined UPDES permits. The Mine may now be required to apply for and obtain separate UPDES Industrial Storm Water Permit coverage under the UPDES MSGP No. UTR000000, or an applicable exemption, as described further in the **STORMWATER** section of this Fact Sheet.

The second permit change is the additional field monitoring for temperature to be conducted and reported monthly along with the existing monitoring requirements. Temperature monitoring is now being included to provide additional water quality data in support of any future Total Maximum Daily Load (TMDL) study to address the impairment for the receiving waters within the watershed. See the **TOTAL MAXIMUM DAILY LOAD REQUIREMENTS** section of this Fact Sheet for more information.

All other permit conditions remain unchanged.

## **DISCHARGE INFORMATION**

### **DESCRIPTION OF DISCHARGE**

Even though the Mine site is inactive and has been reclaimed, there is a continuous low-flow of groundwater through Outfall 001, which discharges to Cottonwood Canyon Creek, a tributary of Cottonwood Creek in Emery County, Utah. The Mine has been reporting self-monitoring results on Discharge Monitoring Reports through NetDMR on a monthly basis as appropriate. There have been no permit effluent concentration limit violations during the past 5-year permit cycle as all monitoring results have been consistently below the respective permit discharge concentration limits. A summary of the effluent discharge data is included as an attachment to this Fact Sheet.

<u>Outfall</u>	<u>Description of Discharge Point</u>
001	Located at latitude 39°19'03"N and longitude 111°11'22"W. Continuous groundwater discharge from reclaimed mine site to culvert in Cottonwood Canyon Creek drainage.

### **RECEIVING WATERS AND STREAM CLASSIFICATION**

Discharge through Outfall 001 is to a culvert in Cottonwood Canyon Creek Drainage, which then flows into Cottonwood Creek, which is classified as follows according to Utah Administrative Code (UAC) R317-2-13:

- Class 1C -- Protected for domestic purposes with prior treatment by treatment processes as required by the Utah Division of Drinking Water
- 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 3A -- Protected for cold water species of game fish and other cold water aquatic life, including the necessary aquatic organisms in their food chain.
- Class 4 -- Protected for agricultural uses including irrigation of crops and stock watering.

### **TOTAL MAXIMUM DAILY LOAD REQUIREMENTS**

According to the DWQ 2022 Integrated Report and 303(d) Assessment, Cottonwood Creek Upper (Cottonwood Creek and tributaries from USFS boundary to headwaters and Joes Valley Reservoir, UT14060009-007\_00) is listed as impaired for pH (1C, 2B and 3A use classes), temperature (3A use class), and total dissolved solids (TDS) (4 use class). Since temperature monitoring has not been included in previous permits, it has now been added to provide additional water quality data in support of any future TMDL study to address the impairment. The parameters of concern remain the same as the previous permit with the addition of the temperature monitoring.



A Total Maximum Daily Load (TMDL) addressing the TDS impairment for the San Rafael River and tributaries was completed as part of the West Colorado River Watershed TMDL in 2004. As part of the TMDL, site specific standards were developed for several stream segments in the watershed. A site-specific standard of 3,500 mg/l TDS was developed for Cottonwood Creek (and has since been incorporated into the Utah Water Quality Standards) from the confluence with Huntington Creek to Highway 57. The Fossil Rock Mine (formerly known as the Trail Mountain Mine), as well as the Cottonwood-Wilberg reclaimed mine site with existing Outfall 001, discharge to Cottonwood Canyon Creek approximately 8 miles above this stream segment. The TMDL indicated a TDS permit limit of 1,136 mg/l for the nearby and adjacent Trail Mountain Mine in order to be protective of downstream uses. The approved TMDL is silent on the Cottonwood-Wilberg Mine's Outfall 001 discharge, but because the Mine discharges to the same location and stream segment as the Trail Mountain Mine, a 1,136 mg/l TDS permit limit has been previously recommended and also included once again for this discharge permit to be consistent with protecting the downstream water uses. For more detailed information, the TMDL can be found in full at <https://documents.deq.utah.gov/water-quality/watershed-protection/total-maximum-daily-loads/DWQ-2015-006611.pdf>.

#### **BASIS FOR EFFLUENT LIMITATIONS**

In accordance with regulations promulgated in 40 Code of Federal Regulations (CFR) Part 122.44 and in Utah Administrative Code (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 R317-2-14) 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 Wasteload Analysis (WLA), which incorporates Secondary Treatment Standards, Water Quality Standards (WQS), including any applicable TMDL impairments as appropriate, 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. During this UPDES renewal permit development, a WLA and ADR were completed as appropriate. An ADR Level I review was performed and concluded that an ADR Level II review was not required at this time since there are no proposed increases in flow or concentrations from the existing discharge operations. The WLA indicates that the effluent limitations will be sufficiently protective of water quality, in order to meet State water quality standards in the receiving waters. The WLA and ADR are included as attachments to this Fact Sheet.

The following list is the basis of the effluent limitations for the permit parameters:

1. Effluent limitations for pH are based on current Utah WQS found in UAC R317-2-14.
2. Limitations on total suspended solids (TSS) at coal mines are typically derived from technology-based effluent limitations found in 40 CFR Part 434.45 and/or Utah Secondary Treatment Standards, but in this case the TSS limitations are carried over from the previous permit requirements based upon a Level II ADR that was completed and approved by DWQ on November 19, 2013, which included more protective TSS limitations than either the applicable 40 CFR or Utah WQS effluent limitations. Therefore, the more stringent TSS limitations as a result of the

previous ADR will apply once again based upon BPJ of the permitting authority and to avoid any anti-backsliding as per U.S. EPA policy.

3. The total iron limitation is based upon the Utah WQS of 1.0 mg/L for dissolved iron (UAC R317-2 Table 2.14.2) and will once again be included in this renewal permit as 1.0 mg/L for total iron. Total iron includes the dissolved iron component and is therefore considered a more protective permit provision and is consistent with other industrial permits in Utah.
4. The oil & grease limitation is based on BPJ of the permitting authority and is consistent with other industrial permits in Utah.
5. TDS limitations are based upon the existing TMDL for effluent concentration values as mentioned previously, and are also based the Colorado River Basin Salinity Control Forum (CRBSCF) for mass loading values as authorized in UAC R317-2-4 to further control salinity in the Utah portion of the Colorado River Basin. Regarding TDS loading, the CRBSCF Policy entitled “NPDES Permit Program Policy for Implementation of Colorado River Salinity Standards” (Policy), with the most current version dated October 2023, requires the TDS loading limitation of one-ton (or 2000 lbs) per day, or 366 tons per year as a sum from all discharge points, unless the average concentration of TDS is 500 mg/L or less. If the concentration of TDS at any Outfall is less than or equal to 500 mg/L as a thirty-day average, then no loading limit applies for that Outfall. The one-ton per day (or 366 tons per year) loading limit applies only to those Outfalls exceeding 500 mg/L as a thirty-day average. Those Outfalls exceeding 500 mg/L as a thirty-day average, collectively, need to meet the one-ton (2000 lbs) per day, or 366 tons per year limit. If one-ton (2000 lbs) per day, or 366 tons per year TDS cannot be achieved, then the permittee will be required to remove salinity/TDS in excess of one-ton (2000 lbs) per day, or 366 tons per year by developing a treatment process, participating in a salinity off-set program, or developing some type of mechanism to remove the salinity/TDS. The selection of a salinity control program must be approved by the Director of DWQ.
6. The effluent flow limitation remains unchanged and is based upon the design flow of the discharging outfall as provided previously by the Mine.

### **Reasonable Potential Analysis**

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

A qualitative RP analysis was performed on the applicable metals constituents from all available Mine discharge data. Initial screening for metals values that were submitted through both the discharge self-monitoring reports and the permit renewal application information showed that a closer look at any of the metals is not needed since all of the metals results were either below the appropriate method detection limits and/or below the applicable water quality standards, or simply believed to be absent based upon historical use and existing data. Therefore, no RP currently exists at the Mine and a more quantitative RP analysis was not necessary at this time. The result of the RP was; Outcome C: No new effluent limitation, routine monitoring requirements maintained as they are in the permit. A copy of the RP summary is included as an attachment to this Fact Sheet.

The Mine is expected to be able to continue meeting the permit limitations as follows:

Parameter, Units	Effluent Limitations *a			
	Maximum Monthly Avg	Maximum Weekly Avg	Daily Minimum	Daily Maximum
Total Flow, MGD	0.54	--	--	--
TSS, mg/L	20	30	--	--
Total Iron, mg/L	--	--	--	1.0
TDS, mg/L	1136	--	--	Report
TDS, lbs/day *b	--	--	--	2000
pH, Standard Units	--	--	6.5	9
Temperature, °C	--	--	--	Report
Oil & Grease, mg/L *c	--	--	--	10.0

**SELF-MONITORING AND REPORTING REQUIREMENTS**

The following self-monitoring requirements are the same as in the previous permit for Outfall 001 with the addition of temperature monitoring as mentioned previously. Sampling frequency is based on the Mine being a minor industrial permit with a maximum design effluent flow of <1 MGD and is consistent with other similar coal mine UPDES permits. The permit will once again require reports to be submitted monthly on Discharge Monitoring Report (DMR) forms via NetDMR due 28 days after the end of the monitoring period. Effective January 1, 2017, monitoring results must be submitted using NetDMR unless the permittee has successfully petitioned for an exception.

Self-Monitoring and Reporting Requirements *a*d			
Parameter	Frequency	Sample Type	Units
Total Flow	Monthly	Measured	MGD
TSS	Monthly	Grab	mg/L
Total Iron	Monthly	Grab	mg/L
TDS	Monthly	Grab	mg/L
TDS *b	Monthly	Grab	lbs/day
pH	Monthly	Grab	SU
Temperature	Monthly	Grab	°C
Oil & Grease *c	Monthly	Visual/Grab	mg/L

\*a See Definitions, *Part VI*, for definition of terms.

\*b No lbs/tons per day loading limit will be applied at a specific Outfall if the concentration of TDS in the discharge is equal to or less than 500 mg/L as a thirty-day average. However, if the thirty-day average TDS concentration exceeds 500 mg/L at any Outfall, then the permittee cannot discharge more than 1 ton per day (or 366 tons per year) as a sum from all discharge points exceeding 500 mg/L as a thirty-day average. If the permittee cannot achieve one ton per day (or 366 tons per year) as a sum from all applicable Outfalls, the permittee will be required to account for the excess salinity/TDS tonnage by developing a treatment process, participating in a salinity off-set program, or other type of mechanism to remove or offset the excess salinity/TDS. The selection of a salinity control program, or

other type of treatment process, must be approved by the Director of the Division of Water Quality.

- \*c Oil & Grease shall be sampled when sheen is present or observed. If no sheen is present or visible, report NA. In addition to monthly monitoring for oil and grease, a visual inspection for floating solids and visible foam shall be performed monthly at all Outfalls. There shall be no sheen, floating solids, or visible foam in other than trace amounts.
- \*d Samples collected in compliance with the monitoring requirements specified above shall be collected at outfall 001 prior to mixing with the receiving water.

### **STORMWATER**

Previously, stormwater discharge requirements and coverage were combined in this individual permit. These have now been separated to provide consistency among permittees, electronic reporting for storm water discharge monitoring reports, and increased flexibility to changing site conditions. Permit coverage under the Multi Sector General Permit (MSGP) for Storm Water Discharges from Industrial Activities may or may not still be required based on the Standard Industrial Classification (SIC) code for the facility and the types of industrial activities occurring, if any. If the facility has not already determined if separate MSGP coverage is required, it has 30 days from when this permit is issued to submit the appropriate Notice of Intent (NOI) for the MSGP or exclusion documentation.

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 Mine does not discharge process wastewater to a Publicly Owned Treatment Works (POTW). Any process wastewater that the Mine may discharge to a POTW, either as a direct discharge or as a hauled waste, is subject to federal, state, and local pretreatment regulations. Pursuant to section 307 of the Clean Water Act, the Mine shall comply with all applicable federal general pretreatment regulations promulgated, found in 40 CFR 403, the pretreatment requirements found in UAC R317-8-8, and any specific local discharge limitations developed by the POTW accepting the waste.

In addition, in accordance with 40 CFR 403.12(p)(1), the Mine must notify the POTW, the EPA Regional Waste Management Director, the DWQ Director and the State hazardous waste authorities in writing if the Mine discharges any substance into a POTW that if otherwise disposed of would be considered a hazardous waste under 40 CFR 261. This notification must include the name of the hazardous waste, the EPA hazardous waste number, and the type of discharge (continuous or batch).

## **BIOMONITORING REQUIREMENTS**

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

The permittee is categorized as a minor industrial facility that discharges a low-flow amount of effluent into a typically dry streambed, in which toxicity is neither an existing concern, nor likely to be present based on previous monitoring data that includes past WET testing. Based on these considerations and following the WET policy, there is no reasonable potential for toxicity in the permittee's discharge. 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 at any time in the future 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 & Reviewed by  
Jeff Studenka, Discharge Permit Writer & Colorado River Basin Salinity Control  
Lonnie Shull, Biomonitoring  
Jordan Bryant, Stormwater  
Jen Robinson, Pretreatment  
Amy Dickey, Watershed Protection/TMDL  
Suzan Tahir, Wasteload Analysis & ADR  
Utah Division of Water Quality (801) 536-4300  
November 16, 2023

## **PUBLIC NOTICE INFORMATION (updated January 25, 2024)**

Began: December 20, 2023  
Ended: January 22, 2024

The Public Noticed of the draft permit was published on the Division of Water quality website for at least 30 days as required.

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

No comments or requests were received during the public notice period. Staff recommends reissuance of the UPDES Permit as drafted.

**ADDENDUM TO FSSOB**

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

**ATTACHMENTS (3):** I. Wasteload Analysis and Antidegradation Review  
II. Effluent Monitoring Data  
III. Reasonable Potential Analysis

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# **ATTACHMENT 1**

*Wasteload Analysis and  
Antidegradation Review*



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

**Date:** September 14, 2023

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

**Facility:** PacifiCorp, Cottonwood/Wilberg Mine  
UPDES No. UT0022896

**Receiving water:** Cottonwood Canyon Creek (1C, 2B, 3A, 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 considers 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: Continuous mine water discharge with a design flow of 0.54 million gallons per day (MGD)

**Receiving Water**

The receiving water for Outfalls 001 is Cottonwood Canyon Creek, an intermittent tributary of Cottonwood Creek.

Per UAC R317-2-13.1(b), the designated beneficial uses for Cottonwood Creek and tributaries from Highway U-57 crossing to headwaters are:

- *Class 1C - Protected for domestic purposes with prior treatment by treatment processes as required by the Utah Division of Drinking Water*
- *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 3A - Protected for cold water species of game fish and other cold water aquatic life, including the necessary aquatic organisms in their food chain.*

**Utah Division of Water Quality  
Wasteload Analysis  
Fossil Rock Mine  
UPDES No. UT0023738**

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

**Flow**

Typically, the critical flow for the wasteload analysis is considered the lowest stream flow for seven consecutive days with a ten-year return frequency (7Q10). Cottonwood Canyon Creek is an intermittent stream that has no flow for large parts of the year. As a result, the annual critical low flow was determined to be zero. As a result, water quality based effluent limits revert to end-of-pipe water quality standards.

Cottonwood Canyon Creek water quality inputs were estimated due to a lack of available data.

**TMDL**

According to DWQ's 2022 Integrated Report and 303(d) Assessment, Cottonwood Creek Upper (Cottonwood Creek and tributaries from USFS boundary to headwaters and Joes Valley Reservoir, UT14060009-007\_00) is listed as impaired for pH (1C, 2B and 3A use classes), temperature (3A), and total dissolved solids (TDS) (4).

A Total Maximum Daily Load (TMDL) addressing the TDS impairment for the San Rafael River and tributaries was completed as part of the West Colorado River Watershed TMDL in August of 2004. As part of the TMDL, site specific standards were developed for several stream segments in the watershed. A site-specific standard of 3,500 mg/l TDS was developed for Cottonwood Creek (and has since been incorporated into the Utah Water Quality Standards) from the confluence with Huntington Creek to Highway 57.

The Trail Mountain Mine (now Fossil Rock Mine), as well as the Cottonwood-Wilberg reclaimed mine site (Outfall 001), discharge to Cottonwood Creek approximately 8 miles above this stream segment. The TMDL indicated a TDS permit limit of 1,136 mg/l for the Trail Mountain Mine in order to be protective of downstream uses. The approved TMDL is silent on the Cottonwood-Wilberg Outfall 001 discharge, but because the mine discharges to the same segment as the Trail Mountain Mine, a 1,136 mg/l TDS permit limit is also recommended for this discharge to protect downstream water uses.

**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, 3A numeric aquatic life use criteria apply to the immediate receiving water (Huntington Creek).

**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.

Because the critical low flow for the receiving water is zero, **no mixing zone** was considered.

### **Parameters of Concern**

The potential parameters of concern identified for the discharge/receiving water were TDS, pH, temperature and total iron based on review of the past permit and the impairment status of the receiving water. 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.

### **WET Limits**

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

Because the critical low flow of the receiving water was determined to be zero, WET limits for Outfall 001 for IC<sub>25</sub> should be based on 100% effluent.

### **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 Appendix A.

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).

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.

**Utah Division of Water Quality**  
**Wasteload Analysis**  
**Fossil Rock Mine**  
**UPDES No. UT0023738**

A Level II Antidegradation Review (ADR) is not required for this facility. The proposed permit is a simple renewal, with no increase in flow or concentration over that which was approved in the existing permit.

**Documents:**

WLA Document : Wilberg\_WLADoc\_2023-Final.docx

Wasteload Analysis: Wilberg\_WLA\_2023-Final.xlsm

Wasteload Analysis: Wilberg\_WLA\_SOB\_2023-Final.pdf

**References:**

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

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

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

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.

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## **ATTACHMENT 2**

*Effluent Monitoring Data*

### Historic Effluent Monitoring Data Summary Table Since 2001 (Outfall 001)

TDS, mg/L		Effluent Flow, MGD		pH, S.U.		Total Iron, mg/L		TSS, mg/L	
Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
830	1,110	0.042	0.117	7.35	8.08	0.035	0.40	3.1	14.0

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## **ATTACHEMNT 3**

*Reasonable Potential Analysis*

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## **REASONABLE POTENTIAL ANALYSIS**

The Division of Water Quality has worked to improve our reasonable potential analysis (RP) for the inclusion of limits for parameters in the permit by using an EPA provided model. As a result of the model, more parameters may be included in the renewal permit. A Copy of the Reasonable Potential Analysis Guidance (RP Guidance) is available at the Division of Water Quality. As listed below, there are four outcomes from the RP Analysis<sup>1</sup> that provide a frame work for what routine monitoring or effluent limitations are required.

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

The Initial RP Screening Table is included below for all metals parameters of concern. Note that the full RP analysis model was not necessary at this time due to the results of the initial screening results below.

**RP Initial Screening Table for Wilberg Mine Outfall 001 (UT0022896)**

Parameters of Concern	No. of Samples	MEC* mg/L	Water Quality Standard MAC**		Outcome/Result
			Acute mg/L	Chronic mg/L	
Total Aluminum	13	0.10	0.751	NA	MEC < MAC***
Total Arsenic	12	<MDL	0.05	0.19	MEC < MAC***
Total Cadmium	12	<MDL	0.0087	0.0008	MEC < MAC***
Total Chromium	10	<MDL	0.016	0.011	MEC < MAC***
Total Copper	12	<MDL	0.0517	0.031	MEC < MAC***
Total Iron	120	0.4	0.836	NA	MEC < MAC***
Total Lead	10	<MDL	0.1	0.0186	MEC < MAC***
Total Manganese	121	0.02	NA	NA	NA
Total Mercury	10	<MDL	0.00014	0.000012	MEC < MAC***
Total Nickel	10	<MDL	0.611	0.169	MEC < MAC***
Total Selenium	10	<MDL	0.02	0.0046	MEC < MAC***
Total Silver	10	<MDL	0.0411	NA	MEC < MAC***
Total Zinc	13	0.027	0.388	0.388	MEC < MAC***

### Notes:

NA – not applicable, no current Water Quality Standard.

<MDL – less than applicable laboratory method detection levels.

\*MEC – Maximum expected effluent concentration as determined from existing data set and initial metals screening.

\*\*MAC – Maximum allowable concentration, UPDES permit effluent limits derived from the current wasteload allocation analysis (WLA).

\*\*\*MEC < (less than) MAC. No Acute or Chronic limits required.

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<sup>1</sup> See Reasonable Potential Analysis Guidance for definitions of terms

Result: From the table above, the RP analysis results for the listed metals is:  $MEC < MAC$ , therefore no additional Acute or Chronic limits are required regarding the listed metals parameters. This equates to ***RP Outcome C: No new effluent limitation. Routine monitoring requirements maintained as they are in the permit.***

Summary: Similar to the previous permit renewal efforts in 2019, a qualitative RP analysis was performed on the applicable metals constituents using all available mine discharge data since 2001. Initial screening for metals values that were submitted through the discharge monitoring reports showed that a closer look at any of the metals that are believed to be present is not needed since all of the metals concentration results were either below the applicable method detection limits and/or below the applicable water quality standards. Therefore, no RP currently exists at mine and a more quantitative RP analysis using the RP Model was not necessary at this time. Based upon the RP Guidance, no additional metal effluent limits have been included in this renewal permit. The result of the RP analysis was; Outcome C: No new effluent limitation, routine monitoring requirements maintained as they are in the permit. This will be re-evaluated during the next permit cycle as appropriate.