

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. **UT0025704**

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

**CENTERFIELD CITY**

is hereby authorized to discharge from the

**CENTERFIELD REGIONAL CULINARY WATER TREATMENT PLANT**

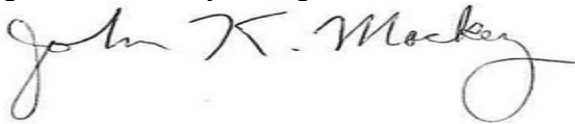
to receiving waters named **TWELVE MILE CREEK**,

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

This permit shall become effective on September 1, 2023.

This permit expires at midnight on August 31, 2028.

Signed this First day of August, 2023.



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John K. Mackey, P.E.  
Director

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**I. DISCHARGE LIMITATIONS AND REPORTING REQUIREMENTS**

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

<u>Outfall Number</u>	<u>Location of Discharge Outfall</u>
001	Located at latitude 39°07'21" N and longitude 111°42'42" W. Discharge through a one-mile length 4-inch pipe from the facility to Twelve Mile Creek.

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

C. Specific Limitations and Self-Monitoring Requirements.

1. Effective immediately and lasting through the life of this permit, there shall be no acute or chronic toxicity in Outfall 001 as defined in *Part VII* of this permit.
2. Effective immediately and lasting the duration of this permit, the permittee is authorized to discharge from Outfall 001. Such discharges shall be limited and monitored by the permittee as specified below:

Parameter, Units	Effluent Limitations *a			
	Maximum Monthly Avg	Maximum Weekly Avg	Daily Minimum	Daily Maximum
Total Flow, MGD *b, *c	0.3	--	--	--
pH, S.U.	--	--	6.5	9.0
Total Dissolved Solids (TDS), mg/L	--	--	--	4000
Turbidity, NTU *d	Report	--	--	Report

Self-Monitoring and Reporting Requirements *a			
Parameter	Frequency	Sample Type	Units
Total Flow *b, *c	Continuous	Recorder	MGD
pH	2 x Month	Grab	S.U.
Turbidity - Effluent *d	2 x Month	Grab	NTU
Turbidity – In Stream* d	2 x Month	Grab	NTU
TDS	Monthly	Grab	mg/L

- \*a See Definitions, *Part VII*, for definition of terms.
  - \*b Flow measurements of the effluent volume shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained.
  - \*c If the rate of discharge is controlled, the rate and duration of discharge shall be reported.
  - \*d Turbidity monitoring shall be performed to demonstrate that there is not an increase of greater than 15 NTUs between the receiving water and the effluent as discharged.
3. Samples collected in compliance with the monitoring requirements specified above shall be collected at the Outfall 001 discharge location prior to mixing with any receiving water.
  4. There shall be no visible sheen or floating solids or visible foam in other than trace amounts as observed in the effluent discharge and there shall be no discharge of sanitary wastes.

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 if 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.

**II. INDUSTRIAL PRETREATMENT REQUIREMENTS**

- A. Discharge to POTW. Any wastewaters discharged to a Publicly Owned Treatment Works (POTW), as an Indirect Discharge, which includes hauled waste, are subject to Federal, State and local Pretreatment Standards and Pretreatment Requirement. Pursuant to Section 307 of The Water Quality Act of 1987, the permittee shall comply 40 CFR Section 403, the *Utah Administrative Code R317-8-8*, and any Pretreatment Standards and Pretreatment Requirement developed by the POTW accepting the wastewater. At a minimum the discharge, into a POTW, must met the requirements of Part II of the permit.
- B. Hazardous Waste Notification. The permittee must notify the POTW, the EPA Regional Waste Management Director, and the State hazardous waste authorities, in writing, if they discharge any substance into a POTW which 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).
- C. 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 Standard and Pretreatment Requirement.
  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.

**PART II**  
**DISCHARGE PERMIT NO. UT0025704**  
**PRETREATMENT**

D. 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 POTW's operation or for violating any pretreatment standard or requirement.
6. *User or Industrial User (IU)* means a source of Indirect Discharge.

**III. STORM WATER REQUIREMENTS**

- A. Industrial Storm Water Permit. The facility's Standard Industrial Category (SIC) code is 4941 for Water Supply, whereas there is no bulk storage exposure of any contaminants at the facility. Based on the type of industrial activities occurring at the facility, the permittee is not 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).
  
- B. Construction Storm Water Permit. Any construction at the facility that disturbs an acre or more of land, including less than an acre if it is part of a common plan of development or sale, is required to obtain coverage under the UPDES Construction General Storm Water Permit (UTRC00000). Permit coverage must be obtained prior to land disturbance. If the site qualifies, a Low Erosivity Waiver (LEW) Certification may be submitted instead of permit coverage.

**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 and 40CFR Part 503*, utilizing sufficiently sensitive test methods unless other test procedures have been specified in this permit.
- C. Penalties for Tampering. The *Act* provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.
- D. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date.
- E. Additional Monitoring by the Permittee. If the permittee monitors any parameter more frequently than required by this permit, using test procedures approved under *UAC R317-2-10 and 40 CFR 503* or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or the Biosolids Report Form. Such increased frequency shall also be indicated. Only those parameters required by the permit need to be reported.
- F. Records Contents. Records of monitoring information shall include:
1. The date, exact place, and time of sampling or measurements;
  2. The individual(s) who performed the sampling or measurements;
  3. The date(s) and time(s) analyses were performed;
  4. The individual(s) who performed the analyses;
  5. The analytical techniques or methods used; and,
  6. The results of such analyses.
- G. Retention of Records. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least five years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time. A copy of this UPDES permit must be maintained on site during the duration of activity at the permitted location
- H. Twenty-four Hour Notice of Noncompliance Reporting.
1. The permittee shall (orally) report any noncompliance including transportation accidents, spills, and uncontrolled runoff from biosolids transfer or land application sites which may seriously endanger health or environment, as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of circumstances. The report shall be made to the Division of Water Quality, (801) 536-4300, or 24-hour answering service (801) 536-4123.



**PART IV**  
**DISCHARGE PERMIT NO. UT0025704**

2. The following occurrences of noncompliance shall be reported by telephone (801) 536-4300 during business hours, or via the 24-hour answering service (801) 536-4123 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.*); or,
  - 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 at (801) 536-4300.
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:
  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;

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

**PART V**  
**DISCHARGE PERMIT NO. UT0025704**

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 *section 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 *sections V.G.2.a (1), (2) and (3).*

3. Notice.

- a. *Anticipated bypass.* Except as provided above in *section V.G.2* and below in *section 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 *section V.G.3.a.(1) through (6)* to the extent practicable.

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- 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.

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.

**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 the alteration or addition could significantly change the nature or increase the quantity of parameters discharged or pollutant sold or given away. This notification applies to pollutants, which are not subject to effluent limitations in the permit. In addition, if there are any planned substantial changes to the permittee's existing sludge facilities or their manner of operation or to current sludge management practices of storage and disposal, the permittee shall give notice to the Director of any planned changes at least 30 days prior to their implementation.
- B. Anticipated Noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity, which may result in noncompliance with permit requirements.
- C. Permit Actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- D. Duty to Reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit.
- E. Duty to Provide Information. The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.
- F. Other Information. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Director, it shall promptly submit such facts or information.
- G. Signatory Requirements. All applications, reports or information submitted to the Director shall be signed and certified.
  - 1. All permit applications shall be signed by either a principal executive officer or ranking elected official.
  - 2. All reports required by the permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
    - a. The authorization is made in writing by a person described above and submitted to the Director, and,
    - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. A duly authorized representative may thus be either a named individual or any individual occupying a named position.

**PART VI**  
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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 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,

**PART VI**  
**DISCHARGE PERMIT NO. UT0025704**

3. The Director does not notify the existing permittee and the proposed new permittee of his or her intent to modify, or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph 2 above.
- N. State or Federal Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by *UCA 19-5-117* and *Section 510* of the *Act* or any applicable Federal or State transportation regulations, such as but not limited to the Department of Transportation regulations.
- O. Water Quality - Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations and compliance schedule, if necessary, if one or more of the following events occurs:
1. Water Quality Standards for the receiving water(s) to which the permittee discharges are modified in such a manner as to require different effluent limits than contained in this permit.
  2. A final wasteload allocation is developed and approved by the State and/or EPA for incorporation in this permit.
  3. Revisions to the current CWA § 208 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> < the applicable percent effluent. The percent effluent is the concentration of the effluent in the receiving water, at the end of the mixing zone expressed as percent 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. UT0025704**

- 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  
CENTERFIELD REGIONAL CULINARY WATER TREATMENT PLANT  
UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES)  
DISCHARGE RENEWAL PERMIT  
UPDES PERMIT NUMBER: UT0025704  
MINOR INDUSTRIAL FACILITY**

**FACILITY CONTACT INFORMATION**

Name: Stewart Jensen  
Position: Water Superintendent

Name: Garrick Willden  
Position: Operator

Name: Travis Leatherwood  
Position: Mayor and Signatory

Mailing Address: Centerfield City  
P.O. Box 220200  
Centerfield, Utah 84622

Telephone: (435) 528-3296

Facility Location Address: 1600 North Highway 137  
Mayfield, UT 84643

**DESCRIPTION OF FACILITY**

Centerfield City operates and maintains a regional culinary water treatment plant (plant), which serves the areas of Centerfield City and Mayfield Town typically in the summer months when demand for water is high. Some of the local water sources are known to have nitrate concentrations that exceed the 10 mg/L maximum for State of Utah drinking water standards. In order to utilize these local water sources, small amounts of water from the higher nitrate sources are blended with Centerfield City's spring water source to provide acceptable drinking water that meets the State nitrate standard. Centerfield City began operating and discharging from this plant in July 2021 when it was first needed for the purpose of providing an additional water source to blend with other higher nitrate sources. The plant is a newer small reverse osmosis (RO) facility with a maximum design flow of 0.3 million gallons per day (MGD). When in use, treatment at the facility produces approximately 150 gallons per minute (gpm) of potable water and 50 gpm of wastewater from the RO filtration process. To date the plant has only operated during peak demand periods from July through October over the past two years with a maximum daily effluent flow rate of 0.09 MGD. This renewal permit authorizes future effluent discharges from the plant over the next five years.

**SUMMARY OF CHANGES FROM PREVIOUS PERMIT**

The only changes proposed with this renewal permit are the removal of Secondary Treatment Standards for Biological Oxygen Demand (BOD) and Total Suspended Solids (TSS) which no longer apply to Non-POTW facilities as described further in the Self-Monitoring & Reporting Requirements section of this Fact Sheet. As a result, Turbidity monitoring has now been included in the permit as an appropriate parameter in lieu of the previous TSS monitoring requirement. All other permit limitations remain unchanged.

## **DISCHARGE INFORMATION**

### **DESCRIPTION OF DISCHARGE OUTFALL**

A description of the permitted discharging outfalls are as follows:

<u>Outfall</u>	<u>Description of Discharge Point</u>
001	Located at latitude 39°07'21" N and longitude 111°42'42" W. Discharge through a one-mile length 4-inch pipe from the facility to Twelve Mile Creek.

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

The discharge from the plant flows directly into Twelve Mile Creek, which is designated according to Utah Administrative Code (UAC) R317-2-13 as follows:

- Class 2B -- Protected for infrequent primary contact recreation. Also protected for secondary contact recreation where there is a low likelihood of ingestion of water or a low degree of bodily contact with the water. Examples include, but are not limited to, wading, hunting, and fishing.
- Class 3C -- Protected for non-game fish and other aquatic life, including the necessary aquatic organisms in their food chain.
- Class 3D -- Protected for waterfowl, shorebirds and other water-oriented wildlife not included in Classes 3A, 3B, or 3C, including the necessary aquatic organisms in their food chain.
- Class 4 -- Protected for agricultural uses including irrigation of crops and stock watering.

### **BASIS FOR EFFLUENT LIMITATIONS**

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*) 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" 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, including Total Maximum Daily Load (TMDL) impairments as appropriate, Antidegradation Review (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 this time since there are no proposed increases in flow or concentrations from the existing plant 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 attached as an addendum to this Fact Sheet.

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

- 1) Daily minimum and daily maximum limitations for pH are derived from Utah Water Quality Standards found in UAC R317-2-14.
- 2) Turbidity monitoring requirements are also derived from Utah Water Quality Standards as found in UAC R317-2-14.
- 3) The concentration limitation for Total Dissolved Solids (TDS) is unchanged as derived from the previous 2018 permit & WLA, which is a more protective limitation than was derived from the current 2023 WLA.
- 4) The flow limitation is based upon the design flow of the discharge as provided by the permittee.

The parameters of concern (POCs) are consistent with previous and other similar UPDES permits, which are based on the plant processes for the treatment of drinking water. Therefore, as listed above and included in the permit; TDS, turbidity (in lieu of TSS) and pH are the primary POCs for this renewal permit.

#### **Total Maximum Daily Load (TMDL)**

According to the Utah 2022 303(d) Water Quality Assessment Report, “Final 2022 Integrated Report on Water Quality”, the receiving water for the discharge, *San Pitch River and tributaries from confluence with Sevier River to tailwaters of Gunnison Reservoir (excluding all of Six Mile Creek and Twelve Mile Creek above USFS boundary)*, (AU UT16030004-001\_00) is listed as impaired for total dissolved solids (TDS). A TMDL addressing TDS for the San Pitch River was completed November 18, 2003, as TDS remains a POC in the permit as appropriate.

#### **Reasonable Potential Analysis**

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

A qualitative RP analysis was performed on all current permit parameters and POCs to determine if there was reasonable potential for the discharge to exceed the applicable water quality standards. Based on the RP analysis, it was determined that no additional effluent limits were necessary in this renewal permit. This is because all the data points reviewed did not exceed the applicable Water Quality Standards and in most cases were well below the applicable standards. Also, as a part of the RP analysis, the BOD & TSS monitoring, which were the previously included secondary treatment standards, have been omitted. The results of the RP analysis confirmed the removal of these two parameters is appropriate in conjunction with the aforementioned rule change regarding the applicability of secondary treatment standards. Therefore, no RP currently exists at the facility for the existing permit parameters and/or the identified POCs and a more quantitative RP analysis was not necessary at this time. The result is *RP Outcome C: No new effluent limitation. Routine monitoring requirements maintained as they are in the permit.* A copy of the RP analysis is included as an Addendum to this Fact Sheet.

The permit effluent limitations are as follows:

Parameter, Units	Effluent Limitations *a			
	Maximum Monthly Avg	Maximum Weekly Avg	Daily Minimum	Daily Maximum
Total Flow, MGD *b, *c	0.3	--	--	--
pH, S.U.	--	--	6.5	9.0
Total Dissolved Solids (TDS), mg/L	--	--	--	4000
Turbidity, NTU *d	Report	--	--	Report

### SELF-MONITORING AND REPORTING REQUIREMENTS

The following self-monitoring requirements are similar as in the previous permit with a couple changes as mentioned previously. TSS & BOD secondary treatment standards have been omitted to reflect recent rule changes in UAC R317-1-3, which clarifies that both TSS and BOD secondary treatment standards are not required for Non-POTW facilities. Publicly Owned Treatment Works (POTWs) are facilities that receive and process domestic waste water. The Centerfield plant is a Non-POTW facility as classified and therefore, secondary treatment standards do not apply. Turbidity monitoring has been included in the permit however, and is an appropriate parameter in lieu of TSS. The permit requires that the self-monitoring reports are to be submitted monthly as appropriate, and on Discharge Monitoring Report (DMR) forms due 28 days after the end of each monitoring period. Effective January 1, 2017, monitoring results must be submitted electronically using NetDMR unless the permittee has successfully petitioned for an exception. Lab reports for biomonitoring, as well as lab reports for metals and toxic organics, if required in the future must be submitted with the applicable DMRs. A review of the past 5 years of DMR data reveals that the Centerfield plant has had no permit limit exceedances and should be able to continue complying with the permit provisions as included herein.

The self-monitoring and reporting requirements in the permit are as follows:

Self-Monitoring and Reporting Requirements *a			
Parameter	Frequency	Sample Type	Units
Total Flow *b, *c	Continuous	Recorder	MGD
pH	2 x Month	Grab	S.U.
Turbidity - Effluent *d	2 x Month	Grab	NTU
Turbidity – In Stream *d	2 x Month	Grab	NTU
TDS	Monthly	Grab	mg/L

- \*a See Permit Definitions, *Part VII*, for definition of terms.
- \*b Flow measurements of the effluent volume shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained.
- \*c If the rate of discharge is controlled, the rate and duration of discharge shall be reported.
- \*d Turbidity monitoring shall be performed to demonstrate that there is not an increase of greater than 15 NTUs between the receiving water and the effluent as discharged.

## **STORM WATER**

Separate storm water UPDES permits may be required based on the types of activities occurring on site. The Centerfield plant falls under the *Standard Industrial Category #4941 for Water Supply*, for which there is no bulk storage or exposure of any contaminants at the facility. Therefore, a separate storm water industrial UPDES permit is not required.

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**

Currently, process wastewater is discharged by the permittee directly into a water of the State and there are no bathrooms, kitchens, or other domestic wastewater sources onsite. If changes occur where any wastewater from the facility is discharged to a POTW, as an Indirect Discharge, which includes hauled waste, the permittee will be subject to federal, state and local pretreatment regulations. Based on section 307 of the Clean Water Act, the permittee shall comply with all applicable Federal Pretreatment Standards and Pretreatment Requirements promulgated in 40 CFR Section 403, the State Pretreatment Standards and Pretreatment Requirements found in UAC R317-8-8, and any Pretreatment Standards and Pretreatment Requirements developed by the POTW accepting the waste.

In addition, per *40 CFR 403.12(p)(1)*, the permittee must notify the POTW, the EPA Regional Waste Management Director, and the State hazardous waste authorities, in writing, if a discharge of any substance into a POTW which 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 (DWQ WET policy). 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 industrial facility that only discharges a small volume of effluent intermittently when in use. Upon initial startup of the facility in 2021, the Centerfield regional treatment plant was required to perform an acute biomonitoring test two times, using both the *Ceriodaphnia dubia* and *Pimephales promelas* (fathead minnows) species. The first time was within 30 days of when the treatment plant first discharges, the second time was within 90 days of the first test as required in the permit. Both WET testing results passed for both species and no further testing was required. These WET testing results confirmed that the potential for toxicity is not deemed sufficient to require regular biomonitoring or whole effluent toxicity (WET) limits in this renewal permit. Based on these considerations, there is no reasonable potential for toxicity in the permittee's discharge as per DWQ WET Policy. As such, there will be no

numerical WET limitations or WET monitoring requirements in this renewal 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 at any time in the future.

### **PERMIT DURATION**

It is recommended that this permit be effective for a duration of five (5) years as authorized in UAC R317-8-5.1(1).

Drafted and reviewed by  
Jeff Studenka, Discharge  
Lonnie Shull, Biomonitoring  
Jennifer Robinson, Pretreatment  
Carl Adams, Storm Water  
Mike Allred, TMDL/Watershed Protection  
Chris Shope, Wasteload Analysis & ADR  
Utah Division of Water Quality, (801) 536-4300  
March 30, 2023

### **PUBLIC NOTICE INFORMATION (updated June 21, 2023)**

Began: May 18, 2023

Ended: June 19, 2023

The Public Notice of the draft permit and the draft permit documents was published on the DWQ website for at least 30 days as required per UAC R317-8-6.5. During the public comment period provided under UAC R317-8-6.5, any interested person may submit written comments on the draft permit and/or 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.

No comments and no requests were received during the public notice period. Staff recommends reissuance of the permit as drafted.

### **ADDENDUM TO FSSOB**

**ATTACHMENTS (2):** I. Wasteload Analysis and Antidegradation Review  
II. Reasonable Potential Analysis Summary with Effluent Data



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# **ATTACHMENT 1**

*Wasteload Analysis & Antidegradation Review*

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## **ATTACHMENT 2**

### *Reasonable Potential Analysis*

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## REASONABLE POTENTIAL ANALYSIS

DWQ has worked to improve the reasonable potential (RP) analysis for the inclusion of limits for parameters in the permit by utilizing an EPA approved method and RP guidance document. As a result, more parameters and/or limits may be included in a renewal permit. There are four resulting outcomes for the RP Analyses<sup>1</sup> as listed below;

- 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 existing permit parameters and/or parameters of concern (POCs), as derived from the previous UPDES permit and the WLA information. 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 Centerfield Water Plant (UT0025704)  
2021-2022 Data Summary Results & RP Analysis (Outfall 001)**

Parameter	No. of Samples	MEC* mg/L	Water Quality Standards (WQS) MAC** (most stringent)		Result
			Acute WQS mg/L	Chronic WQS mg/L	
BOD	16	<5.0	25	35	MEC ≤ MAC
TSS	16	<4.0	25	35	MEC ≤ MAC
TDS	16	3340	4000	NA	MEC ≤ MAC
pH, SU	16	7.5 - 7.8 (SU)	6.5 (min)	9.0 (max)	MEC ≤ MAC

### Notes:

NA = Not Applicable.

\*MEC = Maximum expected effluent concentration as determined from existing data set.

\*\*MAC = Maximum allowable concentration from Water Quality Standards and/or Wasteload Analysis.

MEC less than or equal (≤) to MAC, no additional Acute or Chronic limits required.

**MEC > MAC** = RP identified, include appropriate limits, if applicable.

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

Summary: Based upon the policy “Reasonable Potential Analysis Guidance” developed by the Utah Division of Water Quality on September 10, 2015 and subsequently implemented beginning January 1, 2016 for all new and renewal permits; it was determined that no additional effluent limits were warranted in this 2023 renewal permit. This is because all the discharging data points reviewed did not exceed the applicable most stringent Water Quality Standards and in actuality were well below the applicable standards. Also, as a part of the RP analysis, the BOD & TSS monitoring, which were the previously included secondary treatment standards, have been omitted. The results of the RP analysis herein confirmed the removal of these two parameters is appropriate

<sup>1</sup> Outcome definitions taken from the 2015 DWQ Reasonable Potential Analysis Guidance.

in conjunction with the rule change regarding the applicability of secondary treatment standards as referenced in the Fact Sheet. Therefore, no RP currently exists at the facility for the existing permit parameters and/or identified POCs and a more quantitative RP analysis was not necessary at this time.

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

**Date:** December 19, 2022

**Prepared by:** Christopher L. Shope  
Standards and Technical Services

**Facility:** Centerfield Regional Culinary Water Treatment Plant  
Mayfield, Utah  
UPDES Permit No. UT0025704

**Receiving water:** Twelve Mile Creek (2B, 3C, 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 (DWQ).

Discharge

Outfall 001: design flow rate of 0.30 MGD, Annual average flow rate of 0.03 MGD, and maximum daily flow rate of 0.09 MGD. Use the design flow rate.

Receiving Water

Effluent discharge from Centerfield Regional Culinary Water Treatment RO Plant is discharged to Twelve Mile Creek.

Per UAC R317-2-13.4(a), the designated beneficial use of the assessment unit in the immediate downstream area is: *San Pitch River and tributaries, from confluence with Sevier River to Highway U-132 crossing except as listed below: 2B,3C,3D,4.*

- *Class 2B -- Protected for infrequent primary contact recreation. Also protected for secondary contact recreation where there is a low likelihood of ingestion of water or a low degree of bodily contact with the water. Examples include, but are not limited to, wading, hunting, and fishing.*
- *Class 3C - Protected for nongame fish and other aquatic life, including the necessary aquatic organisms in their food chain.*

## Utah Division of Water Quality

### Wasteload Analysis

#### Centerfield Regional Culinary Water Treatment Plant, UPDES Permit No. UT0025704

- *Class 3D -- Protected for waterfowl, shore birds and other water-oriented wildlife not included in Classes 3A, 3B, or 3C, including the necessary aquatic organisms in their food chain.*
- *Class 4 - Protected for agricultural uses including irrigation of crops and stock watering.*

Typically, the critical flow for the wasteload analysis is considered the lowest stream flow averaged over seven consecutive days with a ten-year return frequency (7Q10). Due to the lack of flow records, the seasonal critical flow on Twelve Mile Creek was calculated using all available data from DWQ Monitoring Station 4946160, TWELVE MILE CK @ U-137 XING IN MAYFIELD for the period 2000 - 2022. The 20<sup>th</sup> percentile seasonal value was calculated for critical low flow conditions. The average annual critical low flow condition is 17.8 ft<sup>3</sup>/s.

Ambient, upstream, background receiving water quality was characterized for Outfall 001 using data from monitoring location DWQ Monitoring Station 4946160, TWELVE MILE CK @ U-137 XING IN MAYFIELD. The 20<sup>th</sup> percentile seasonal value was calculated for each constituent with available monitoring and sampling data in the upstream receiving water.

Limited effluent discharge parameters were provided in the renewal application and DWQ does not currently monitor effluent conditions at Outfall 001. The parameters were therefore, characterized using the limited data available from the Discharge Monitoring Report (DMR) and the provided facility monitoring data. Several analytes were not available including effluent water temperature, total nitrogen ammonia as N, total residual chlorine, and hardness. In addition, monitoring data is only available for summer and fall. Therefore, the average value was used for additional seasonal requirements.

#### Total Maximum Daily Load (TMDL)

According to the Utah's 2022 303(d) [Water Quality Assessment Report](#) "Final 2022 Integrated Report on Water Quality", the receiving water for the discharge, *San Pitch River and tributaries from confluence with Sevier River to tailwaters of Gunnison Reservoir (excluding all of Sixmile Creek and Twelvemile Creek above USFS boundary)*, (AU UT16030004-001\_00) is listed as impaired for total dissolved solids (TDS). A TMDL addressing TDS for the San Pitch River was completed November 18, 2003.

#### Mixing Zone

The maximum allowable mixing zone is 15 minutes of travel time for acute conditions, not to exceed 50% of stream width, and for chronic conditions is 2500 ft, per UAC R317-2-5. Water quality standards must be met at the end of the mixing zone. Individual mixing zones may be further limited or disallowed. The mixing zone model showed complete mixing within 2,500 feet for chronic conditions. Acute limits were calculated using 50% of the seasonal critical low flow.

#### Parameters of Concern

The potential parameter of concern identified for the discharge/receiving water is total dissolved solids (TDS). This parameter of concern (POC) was determined in consultation with the UPDES Permit Writer and the Watershed Protection Specialist, and as determined by the existing UPDES Permit and the impairment status of the receiving water.

**Utah Division of Water Quality  
Wasteload Analysis  
Centerfield Regional Culinary Water Treatment Plant, UPDES Permit No. UT0025704**

WET Limits

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

IC25 WET limits for Outfall 001 should be based on 12.2% effluent. LC50 WET limits for Outfall 001 should be based on 46.5% effluent.

Wasteload Allocation Methods

Effluent limits were determined for all constituents using the Utah Rivers Model, a mass balance and mixing analysis (UDWQ, 2021). The 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. However, temperature, pH, and ammonia concentration of the effluent were not provided. Background temperature and pH values were used in the analysis. 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.

A Level II Antidegradation Review (ADR) is not required for this facility. The proposed permit is a simple renewal of an existing UPDES permit. No increase in flow or concentration of pollutants over those authorized in the the existing permit is being requested.

Documents:

WLA Document: *Centerfield\_WLA\_2022.docx*

Wasteload Analysis and Addendums: *Centerfield\_WLA\_2022.xlsm*

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.*