

Official Draft Public Notice Version **June 30, 2020**.

The findings, determinations, and assertions contained in this document are not final and subject to change following the public comment period.

**FACT SHEET AND STATEMENT OF BASIS
PAROWAN CITY
PERMIT: DISCHARGE, BIOSOLIDS
UPDES PERMIT NUMBER: UT0026158
MINOR MUNICIPAL**

FACILITY CONTACTS

Person Name: Cleve Matheson
Position: City Manager
Phone Number: (435) 477-3331

Facility Name: Parowan City
Mailing Address: 35 East 100 North
PO Box 576
Parowan, Utah 84761

Telephone: (435) 477-3331

Actual Address: 2800 West 2200 North
Parowan, Utah 84761
Iron County

DESCRIPTION OF FACILITY

The Parowan City Wastewater Treatment Facility (Parowan) is a discharging lagoon system. This facility is located at 2800 West 2200 North, Parowan, in Iron County, Utah. The facility serves the communities of Parowan and Brian Head Town with a population of 3,395. The outfall discharges to the Little Salt Lake dry lakebed located at latitude 37°53'43" N and longitude 112°54'01" W. The lagoon currently has 5 cells with 55.8 acres of sewer lagoon surface area with a design capacity is 0.47 MGD. The current retention time is 150 to 271 days.

The lagoons were put into service in 2006 with the intent to be a non-discharging lagoon. The evaporation and seepage losses were not achieved according to the design plans. Parowan applied and received a land disposal operating permit from DWQ in 2009. In spring 2020, Parowan required an additional disposal method and therefore applied for a UPDES Permit to discharge into the Little Salt Lake. Parowan will maintain coverage under the DWQ operating permit for the land disposal and the surface water discharge to the Little Salt Lake will be covered with the UPDES discharging permit.

SUMMARY OF CHANGES FROM PREVIOUS PERMIT

Parowan has not received a previous permit; therefore, there have not been any changes.

DISCHARGE

DESCRIPTION OF DISCHARGE

Parowan will report self-monitoring results on Discharge Monitoring Reports on a monthly basis after the effective date of this permit.

Outfall
001

Description of Discharge Point

Located at latitude 37°53'43" N and longitude 112°54'01" W, the discharge enters the Little Salt Lake dry lakebed.

RECEIVING WATERS AND STREAM CLASSIFICATION

Based on UAC 317-2-13.13(Unclassified Waters), Little Salt Lake does not have designated beneficial uses and would be presumptively designated as 2B and 3D according to *Utah Administrative Code (UAC) R317-2-13*:

Class 2B Protected for infrequent primary contact recreation. Also protected for secondary contact recreation where there is a low likelihood of ingestion of water or a low degree of bodily contact with the water. Examples include, but are not limited to, wading, hunting, and fishing.

Class 3D Protected for waterfowl, shore birds and other water-oriented wildlife not included in Classes 3A, 3B, or 3C, including the necessary aquatic organisms in their food chain.

BASIS FOR EFFLUENT LIMITATIONS

Limitations on total suspended solids (TSS), biochemical oxygen demand (BOD₅), *E. coli*, pH and percent removal for BOD₅ and TSS are based on current Utah Secondary Treatment Standards, UAC R317-1-3.2. The oil and grease is based on best professional judgment (BPJ). Attached is a Wasteload Analysis for this discharge into the Little Salt Lake dry lakebed. It has been determined that this discharge will not cause a violation of water quality standards. An Antidegradation Level II review was completed during the permit application process. The permittee is expected to be able to comply with these limitations.

Parameters of Concern

The potential parameters of concern identified for the discharge/receiving water were total suspended solids (TSS), dissolved oxygen (DO), BOD₅, total ammonia (TAN), total phosphorus (TP), *E. coli*, and pH.

TBPEL Rule

Water Quality adopted UAC R317-1-3.3, Technology-Based Phosphorus Effluent Limit (TBPEL) Rule in 2014. Instead of instituting limits for discharging treatment lagoons, each lagoon is evaluated to determine the annual average total phosphorus load measured in pounds per year based on monthly average flow rates and concentrations. Parowan did not previous have a UPDES permit and therefore there is no data available to determine the loading cap. Monthly monitoring and reporting for total phosphorus, total Kjeldahl nitrogen, orthophosphate, ammonia, nitrate and nitrite will be required.

Reasonable Potential Analysis

Since January 1, 2016, DWQ has conducted reasonable potential analysis (RP) on all new and renewal applications received after that date. In order to complete a RP analysis, more than 10 data points per parameter are needed. Parowan has not previous had a UPDES permit; therefore, analysis data is not

available to perform a RP analysis. For this permit cycle, Parowan will be required to perform, at a minimum, annual metal sampling. If additional sampling is performed, it shall be reported to DWQ. Less than 10 data points may affect the RP outcomes which may require additional monitoring in the future.

The permit limitations are:

Table 1					
Parameter	Effluent Limitations ^a				
	Maximum Monthly Avg	Monthly Minimum	Maximum Weekly Avg	Daily Minimum	Daily Maximum
Flow, MGD	0.711	--	--	--	0.474
BOD₅, mg/L	25	--	35	--	--
BOD₅ Min. % Removal	85	--	--	--	--
TSS, mg/L	25	--	35	--	--
TSS Min. % Removal	85	--	--	--	--
<i>E. coli</i>, No./100mL	126	--	158	--	--
pH, Standard Units	--	--	--	6.5	9
DO, mg/L	--	5.0	--	3.0	--
Ammonia, mg/L					
Summer (Jul-Sep)	0.7	--	--	--	2.7
Fall (Oct-Dec)	1.5	--	--	--	2.7
Winter (Jan-Mar)	2.1	--	--	--	2.7
Spring (Apr-Jun)	1.0	--	--	--	2.7
Oil & Grease, mg/L	--	--	--	--	10.0

SELF-MONITORING AND REPORTING REQUIREMENTS

The permit will require reports to be submitted monthly and annually, as applicable, on Discharge Monitoring Report (DMR) forms due 28 days after the end of the monitoring period. Monitoring results must be submitted using NetDMR unless the permittee has successfully petitioned for an exception. Lab sheets for metals and toxic organics must be attached to the DMRs.

Table 2			
Self-Monitoring and Reporting Requirements^{a, b}			
Parameter	Frequency	Sample Type	Units
Total Flow^{c, d}			
Effluent	Continuous	Recorder	MGD
BOD₅			
Influent^e	Weekly	Composite	mg/L
Effluent	Weekly	Composite	mg/L
TSS			
Influent^e	Weekly	Composite	mg/L
Effluent	Weekly	Composite	mg/L
<i>E. coli</i>			
Effluent	Weekly	Grab	No./100mL
pH			
Effluent	Daily	Grab	SU
DO			
Effluent	Daily	Grab	mg/L
Total Ammonia (as N)			
Effluent	Weekly	Grab	mg/L
Oil & Grease^{f, h}			
Effluent	When Sheen Observed	Grab	mg/L
Temperature, mg/L			
Effluent	Weekly	Recorder	Fahrenheit
TDS			
Effluent	Monthly	Composite	mg/L
Hardness			
Effluent	Monthly	Composite	mg/L
TRC, mg/L			
Effluent	When Chlorine is Used	Grab	mg/L
Orthophosphate (as P)ⁱ			
Effluent	Monthly	Composite	mg/L
Total Phosphorus (as P)ⁱ			
Influent	Monthly	Grab	mg/L
Effluent	Monthly	Grab	mg/L
Total Kjeldahl Nitrogen (TKN (as N))ⁱ			
Influent	Monthly	Composite	mg/L
Effluent	Monthly	Composite	mg/L
Nitrate, NO₃ⁱ			
Effluent	Monthly	Composite	mg/L
Nitrite, NO₂ⁱ			
Effluent	Monthly	Composite	mg/L
Metals^{j, k, l}			
Effluent	Annually	Composite	mg/L

Table References

- a. See Definitions, *Part VIII*, for definition of terms.
- b. All parameters in this table will be reported on the monthly Discharge Monitoring Report.
- c. Flow measurements of effluent volume shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained.
- d. If the rate of discharge is controlled, the rate and duration of discharge shall be reported.
- e. In addition to monitoring the final discharge, influent samples shall be taken and analyzed for this constituent at the same frequency as required for this constituent in the discharge.
- f. There shall be no visible sheen or floating solids or visible foam in other than trace amounts.
- g. Analytical results less than 0.06 mg/l will not be considered out of compliance with the permit. For purposes of calculating averages and reporting on the Discharge Monitoring Report form, the following will apply:
 - Analytical values less than 0.02 mg/L shall be considered zero; and
 - Analytical values less than 0.06 mg/L and equal to or greater than 0.02 mg/L will be recorded as measured.
- h. Oil & Grease sampled when sheen is present or visible. If no sheen is present or visible, report 9 under “NODI” in NetDMR.
- i. Monitoring only for total phosphorus (TP), orthophosphate as P (OP), total ammonia, nitrate, nitrite, and total Kjeldahl nitrogen as N (TKN) have been included to comply with Utah Secondary Treatment Standards and the Technology-based Phosphorus Effluent limit rule in *UAC R317-1-3.3*
- j. Metals samples should be analyzed using a method that meets MDL requirements. If a test method is not available the permittee must submit documentation to the Director regarding the method that will be used. The sample type (composite or grab) should be performed according to the methods requirements.
- k. Metals are being sampled in support of the work being done for the Reasonable Potential Analysis. The Metal parameters will be monitored and reported on an annual basis by the facility on Discharge Monitoring Report, but will not have a limit associated with them, if CDSO decides to sample more frequently for these parameters, the additional data will be welcome.
- l. Metals
 - Arsenic
 - Cadmium
 - Total Chromium
 - Copper
 - Cyanide
 - Lead
 - Mercury
 - Nickel
 - Selenium
 - Silver
 - Zinc

End Table References

Lagoon Best Management Practices:

- 1) The permittee shall take such parameters as are necessary to maintain and operate the facility in a manner that will minimize upsets and ensure stable operating conditions.
- 2) The permittee shall visually inspect, at least weekly, the pond(s) to determine if there is adequate freeboard to minimize the likelihood of an accidental discharge occurring. If it is determined that a discharge is occurring and/or there is not adequate freeboard, the appropriate corrective measures shall be taken immediately.

- 3) The permittee shall take precautions and have erosion control measures in place that, in the event of a bypass of treatment, the discharge will not cause erosion into the Waters of the State.

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BIOSOLIDS

The State of Utah has adopted the 40 CFR 503 federal regulations for the disposal of sewage sludge (biosolids) by reference. However, since this facility is a lagoon, there is not any regular sludge production. Therefore 40 CFR 503 does not apply at this time. In the future, if the sludge needs to be removed from the lagoons and is disposed in some way, the Division of Water Quality must be contacted prior to the removal of the sludge to ensure that all applicable state and federal regulations are met

STORM WATER

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

Permit coverage under the Multi Sector General Permit (MSGP) for Storm Water Discharges from Industrial Activities is required for treatment works with a design flow of 1.0 MGD or more, or which are required to have an approved pretreatment program under *40 CFR Part 403*. Coverage is not required at this time since these conditions are not met. If at any time design flows increase to 1.0 MGD or greater then permit coverage under the MSGP will be 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

The permittee has not been designated for pretreatment program development because it does not meet conditions which necessitate a full program. The flow through the plant is less than five (5) MGD, there are no known categorical industries discharging to the treatment facility, and there is no indication of interference with the operation of the treatment facility such as upsets.

Although the permittee does not have to develop an approved pretreatment program, any wastewater discharged to the publicly owned treatment works (POTW) by an industrial user is subject to federal, state and local regulations. Pursuant to the Clean Water Act Section 307 the permittee shall notify the Division of Water Quality of any industrial users within the service area for the POTW that must comply with applicable pretreatment regulations found in 40 CFR 403 and the state of Utah Pretreatment Requirements found in UAC R317-8-8.

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

It is required that the permittee submit for review any local limits that are developed to the Division of Water Quality for review. If local limits are developed it is required that the permittee perform an annual evaluation of the need to revise or develop technically based local limits for pollutants of concern, to implement the general and specific prohibitions *40 CFR, Part 403.5(a)* and *Part 403.5(b)*. This evaluation may indicate that present local limits are sufficiently protective, need to be revised or should be developed.

BIOMONITORING REQUIREMENTS

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

The permittee is a minor municipal facility that will be discharging an infrequent amount of effluent, in which toxicity is neither an existing concern, nor likely to be present. Also, the receiving irrigation ditch is regularly dry; therefore there is not any available data to conclude that the irrigation ditch is impaired. Based on these considerations and the absence of receiving stream water quality monitoring data, there is no reasonable potential for toxicity in the permittee's discharge (per State of Utah Permitting and Enforcement Guidance Document for WET Control). As such, there will be no numerical WET limitations or WET monitoring requirements in this permit. However, the permit will contain a toxicity limitation re-opener provision that allows for modification of the permit should additional information indicate the presence of toxicity in the discharge.

PERMIT DURATION

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

Drafted by
Sarah Leavitt Ward, Discharge
Daniel Griffin, Biosolids
Jennifer Robinson, Pretreatment
Lonnie Shull, Biomonitoring
Lisa Stevens, Storm Water
Suzan Tahir, Wasteload Analysis
Utah Division of Water Quality, (801) 536-4300

PUBLIC NOTICE

Began: Month Day, Year

Ended: Month Day, Year

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

The Public Noticed of the draft permit was published in the (NEWSPAPER OF RECORD FOR AREA).

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

ADDENDUM TO FSSOB

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

Responsiveness Summary

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

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ATTACHMENT 1

Industrial Waste Survey

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Industrial Pretreatment Wastewater Survey



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

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

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

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

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

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

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

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

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

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

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

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

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

An Industrial Waste Survey consists of:

Step 1: Identify Industrial Users

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

Sources for the list:

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

Split the list into two groups:

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

Step 2: Preliminary Inspection

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

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

Step 3: Informing the State

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

Jennifer Robinson

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

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

PRELIMINARY INSPECTION FORM

INSPECTION DATE ___ / ___ /

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

Description of Business _____

Principal product or service: _____

Raw Materials used: _____

Production process is: Batch Continuous Both

Is production subject to seasonal variation? yes no

If yes, briefly describe seasonal production cycle.

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

- | | |
|--|--|
| 1. <input type="checkbox"/> Domestic wastes | (Restrooms, employee showers, etc.) |
| 2. <input type="checkbox"/> Cooling water, non-contact | 3. <input type="checkbox"/> Boiler/Tower blowdown |
| 4. <input type="checkbox"/> Cooling water, contact | 5. <input type="checkbox"/> Process |
| 6. <input type="checkbox"/> Equipment/Facility wash-down | 7. <input type="checkbox"/> Air Pollution Control Unit |
| 8. <input type="checkbox"/> Storm water runoff to sewer | 9. <input type="checkbox"/> Other describe |

Wastes are discharged to (check all that apply):

- | | |
|---|---------------------------------------|
| <input type="checkbox"/> Sanitary sewer | <input type="checkbox"/> Storm sewer |
| <input type="checkbox"/> Surface water | <input type="checkbox"/> Ground water |
| <input type="checkbox"/> Waste haulers | <input type="checkbox"/> Evaporation |
| <input type="checkbox"/> Other (describe) | |

Name of waste hauler(s), if used

Is a grease trap installed? Yes No

Is it operational? Yes No

Does the business discharge a lot of process wastewater?

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

Does the business do any of the following:

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

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

Inspector

Waste Treatment Facility

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

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

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

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

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ATTACHMENT 2

Wasteload Analysis

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ATTACHMENT 4

Reasonable Potential Analysis

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REASONABLE POTENTIAL ANALYSIS

Water Quality has worked to improve our reasonable potential analysis (RP) for the inclusion of limits for parameters in the permit by using an EPA provided model. As a result of the model, more parameters may be included in the renewal permit. A Copy of the Reasonable Potential Analysis Guidance (RP Guide) is available at water Quality. There are four outcomes for the RP Analysis¹. They are;

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

Reasonable Potential Analysis

In order to complete a RP analysis, more than 10 data points per parameter are needed. Parowan has not previous had a UPDES permit, therefore, analysis data is not available to perform a RP analysis. For this permit cycle, Parowan will be required to permit, at a minimum, annual metal sampling. If additional sampling is performed, it shall be reported to DWQ. Less than 10 data points may affect the RP outcomes which may require additional monitoring in the future.

¹ See Reasonable Potential Analysis Guidance for definitions of terms