

**FACT SHEET AND STATEMENT OF BASIS  
BEAR RIVER CITY LAGOONS  
RENEWAL PERMIT: DISCHARGE  
UPDES PERMIT NUMBER: UT0020311  
MINOR MUNICIPAL**

**FACILITY CONTACTS**

Person Name:	Jared Holmgren
Position:	Operator
Phone Number:	(435) 279-9047
Facility Name:	Bear River City Lagoons
Mailing and Facility Address:	PO Box 426 Bear River City, UT 84301
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Actual Address:	5200 West Rd. Bear River City, UT 84301

**DESCRIPTION OF FACILITY**

Bear River City (City) is located northwest of Ogden in Box Elder County. The 2010 census showed that there are 853 people who live in the city. The City lagoon system was put into operation in 1974 to treat residential sewage for the City. The design flow of the treatment facility is 0.36 million gallons per day. The treatment facility consists of a pump station, a pressurized 6-inch line, followed by a six-cell facultative lagoon system that has a total containment capacity of 54.4-acre feet, with a surface area of 10.4 acres. The primary cell was designed for 156 pounds of BOD<sub>5</sub> per day with a population equivalent of 916 people. The facility has the ability to discharge to the Malad River.

In November 2015, the City completed construction of a 12-million-gallon land application reservoir. The reservoir is located on private property with an agreement of first right to purchase with the city. The reservoir is fenced and will be signed before beginning operation. The reservoir holds treatment plant effluent for land application by agricultural irrigation on the property adjoining to the East. No crops for human consumption will be grown with the treated effluent. Prior to discharge into the reservoir, the city has gaseous chlorination.

**SUMMARY OF CHANGES FROM PREVIOUS PERMIT**

**Reuse (Land Application)**

Bear River City conducts land application for irrigation of crop for livestock (Type II reuse). Bear River City began land application in 2016, which was during the last permit cycle. During this past permit cycle Bear River City had frequent exceedances of their *E. coli* limitations. In order to address these violations during this permit cycle they will be required to report reuse monitoring on their monthly DMR, rather than an annual report and the permit includes accelerated *E. coli* sampling if *E. coli* limits are exceeded, with possible cessation of reuse, until *E. coli* limitations can be met. See below for *E. coli* accelerated sampling language:

If *E. coli* sampling exceeds effluent limitations, the permittee shall notify the Director within 24 hours and in writing within 5 days after becoming aware of the test result. The permittee shall perform an accelerated schedule of *E. coli* sampling to establish if there is a pattern. Accelerated sampling should begin within 24 hours after the permittee becomes aware of the test result. Accelerated testing is considered to be daily grab sampling of *E. coli*, until 2 consecutive tests are within permit limitations. If *E. coli* limits are exceeded for 5 consecutive tests, Bear River City shall stop reusing until an evaluation can be completed to determine cause of *E. coli* exceedances. Once the cause is resolved and documentation sent to the Director in writing, DWQ staff will review the findings and provide written approval to Bear River City to conduct reuse.

In addition to the changes made to reuse reporting and *E. coli* accelerated testing, weekly grab sampling for Total Residual Chlorine (TRC) was added. Reuse sampling frequency of pH, *E. coli*, and TSS have been increased to weekly, max monthly averages for BOD<sub>5</sub> and TSS have been added, and max weekly median *E. coli* limits have been reduced to 126 organisms/100 mL to meet the requirements outlined in R317-3-11.5. The sampling frequencies reflect the minimum allowed for by R317-3-11.5C. 5.

Bear River City water rights approval is required to be submitted to the Division within six months of the issuance of this permit.

#### **Ammonia (as N) Limit**

Based on the wasteload analysis and available Bear River effluent data, effluent limits have been added to this permit. The limits will apply when/if the lagoons discharge to the Malad River. Based on available data there is a possibility that Bear River would not be able to meet the Ammonia (as N) limits in the Winter and Spring. Bear River has not consistently discharged to the Malad since 2015, and has no plans to discharge in the near future. Bear River currently land applies (reuse) their effluent on an adjacent property. If Bear River determines the need to discharge to the Malad in the future and is unable to meet these Ammonia limits, the DWQ will initiate a compliance schedule.

### **DISCHARGE**

#### **DESCRIPTION OF DISCHARGE**

Bear River City is a total reuse facility. Bear River City maintains a UPDES permit in the event that a discharge from their facility to the Malad River is necessary.

#### **Outfall Number(s)**

#### **Location of Discharge Outfall(s)**

001

Located at latitude 41 ° 35' 58" N and longitude 112° 08' 32" W. The outfall is in a manhole, with a 90 degree, v-notch weir, that flows into an 8" concrete pipe that discharges directly into the Malad River.

002

Located at latitude 41 ° 36' 04" N and longitude 112° 08' 21" W. The outfall of the bottom drain of retention basin flows into a Tributary (ditch), then to the Malad River.

003

Located at latitude 41 ° 36' 03" N and longitude 112° 08' 19" W. The outfall is an emergency overflow spillway from

the retention basin that flows to a tributary (ditch), then to the Malad River.

Location of Effluent Reuse Discharge Outfall(s)

001R

Description of Area for Use

Located at latitude 41° 36' 04" N and longitude 112° 08' 23" W. The outfall is to a retention basin for land application on the adjacent site.

**RECEIVING WATERS AND STREAM CLASSIFICATION**

If a discharge were to occur, it would discharge to the Malad River, then the Bear River. The Malad River is a Classified as 2B and 3C according to *Utah Administrative Code (UAC) R317-2-13*:

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

**TMDL**

The Malad River was not assessed due to insufficient data in *Utah's Final 2016 Integrated Report*. The Malad River is tributary to the Bear River, which is listed as impaired for dissolved oxygen, total dissolved solids, and benthic macroinvertebrates in the 2016 303(d) list.

The *Lower Bear River and Tributaries TMDL*, which was approved by EPA in 2002, addressed the dissolved oxygen impairment by establishing instream concentration and load allocations for total phosphorous (TP) in the watershed. Point sources identified in the TMDL were Tremonton City, Bear River City, and Corrine City WWTPs. Based on the revised implantation plan Bear River City Lagoons were allocated 3.1 lb/day of TP.

**Parameter of Concern**

The potential in-stream parameters of concern identified for the discharge/receiving water may include metals, total dissolved solids (TDS), total residual chlorine (TRC), total suspended solids (TSS), dissolved oxygen (DO), BOD, total phosphorus (TP), and pH.

**BASIS FOR EFFLUENT LIMITATIONS**

**Discharge**

Limitations on total suspended solids (TSS), biochemical oxygen demand (BOD<sub>5</sub>), *E. coli*, pH and percent removal for BOD<sub>5</sub> and TSS are based on current Utah Secondary Treatment Standards, UAC R317-1-3.2. Since Bear River City is a Lagoon, they were granted relaxed BOD<sub>5</sub> and TSS limitations, in accordance with R317-1-3.2. The limits for dissolved oxygen, total residual chlorine, and ammonia were taken from the Wasteload Analysis (WLA). Attached is a WLA for this discharge into the Malad River. It has been determined that this discharge will not cause a violation of water quality standards. An Antidegradation Level II review is not required since the facility does not have any proposed changes.

**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. Bear River City hasn't discharged to the Malad since initiating reuse, except for a single emergency situation in 2017. For this permit cycle, Bear River will be required to sample, at a minimum, annual metal sampling from Outfall 001, 002, 003 and 001R. 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 for outfall(s) 001, 002, and 003 in Table 1.

<b>Table 1</b>					
<b>Parameter</b>	<b>Effluent Limitations Outfall(s) 001, 002, &amp; 003<sup>a,b</sup></b>				
	<b>Maximum Monthly Avg</b>	<b>Maximum Weekly Avg</b>	<b>Yearly Maximum</b>	<b>Daily Minimum</b>	<b>Daily Maximum</b>
Total Flow, MGD <sup>c, d, e</sup>	--	--	--	--	0.36
BOD <sub>5</sub> , mg/L	45	65	--	--	--
TSS, mg/L	45	65	--	--	--
Dissolved Oxygen, mg/L	--	--	--	4.0	--
TRC, mg/L	--	--	--	--	0.019
<i>E. coli</i> , No./100mL	126	157	--	--	--
Total Ammonia (as N), mg/L					
Summer (Jul-Sep)	22.0	--	--	--	17.8
Fall (Oct-Dec)	3.0	--	--	--	14.0
Winter (Jan-Mar)	6.0	--	--	--	17.0
Spring (Apr-Jun)	2.0	--	--	--	6.0
Total Phosphorus (as P), lbs/yr	--	--	1,132	--	--
pH, Standard Units	--	--	--	6.5	9
Oil and Grease, mg/L <sup>f, g</sup>	--	--	--	10.0	--
Metals <sup>h, i, j</sup>	--	--	--	--	--

**Table 1 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. Oil & Grease sampled when sheen is present or visible. If no sheen is present or visible, report 9 under "NODI" in NetDMR.
- h. 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.
- i. 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 Manti decides to sample more frequently for these parameters, the additional data will be required as per Part V.E.
- j. Metals
 

Arsenic	Copper	Mercury
Cadmium	Cyanide	Nickel
Total Chromium	Lead	Selenium

Silver

Zinc

**End Table 1 References**

**SELF-MONITORING AND REPORTING REQUIREMENTS**

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

<b>Table 2</b>			
<b>Influent Self-Monitoring and Reporting Requirements<sup>a, b, c</sup></b>			
<b>Parameter</b>	<b>Frequency</b>	<b>Sample Type</b>	<b>Units</b>
BOD <sub>5</sub>	Monthly	Composite	mg/L
TSS	Monthly	Composite	mg/L
Total Phosphorus (as P) <sup>d</sup>	Monthly	Composite	mg/L
Total Kjeldahl Nitrogen (as N) <sup>d</sup>	Monthly	Composite	mg/L

**Table 2 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. 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.
- d. 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*

**End Table 2 References**

<b>Table 3</b>			
<b>Outfall 001</b>			
<b>Effluent Self-Monitoring and Reporting Requirements <sup>a, b</sup></b>			
<b>Parameter</b>	<b>Frequency</b>	<b>Sample Type</b>	<b>Units</b>
Total Flow <sup>c, d, e</sup>	Continuous	Recorder	MGD
BOD <sub>5</sub>	Monthly	Composite	mg/L
BOD <sub>5</sub> Removal	Monthly	Calculated	%
TSS	Monthly	Composite	mg/L
TSS Removal	Monthly	Calculated	%
<i>E. coli</i>	Monthly	Grab	No./100mL
pH	Monthly	Grab	SU
DO	Monthly	Grab	mg/L
TRC <sup>f</sup>	Monthly	Grab	mg/L
Ammonia	Monthly	Grab	mg/L
TDS	Monthly	Composite	Mg/L
Oil & Grease <sup>g, h</sup>	When Sheen Observed	Grab	mg/L
Total Phosphorus (as P) <sup>i</sup>	Monthly	Composite	mg/L
Total Kjeldahl Nitrogen (as N) <sup>i</sup>	Monthly	Composite	mg/L
Orthophosphate (as P) <sup>i</sup>	Monthly	Composite	mg/L
Nitrate, NO <sub>3</sub> <sup>i</sup>	Monthly	Composite	mg/L
Nitrite, NO <sub>2</sub> <sup>i</sup>	Monthly	Composite	mg/L
Metals <sup>j, k, l</sup>	Quarterly	Composite	mg/L

**Table 3 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. The facility is required to disinfect to destroy, inactivate or remove pathogenic microorganisms by chemical, physical or biological means. Disinfection may be accomplished by chlorination, ozonation, or other chemical disinfectants, UV radiation. Or other approved processes. Chlorine residual is recommended but no longer required. Sampling not required if chlorination is not being used. The total residual chlorine shall be measured continuously and shall at no time be less than 1.0 mg/l after 30 minutes contact time at peak flow. If an alternative disinfection process is used, it must be demonstrated to the satisfaction of the Director that the alternative process is comparable to that achieved by chlorination with a 1 mg/l residual after 30 minutes contact time. If the effectiveness cannot be related to chlorination, then the effectiveness of the alternative disinfection process must be demonstrated by testing for pathogen destruction as determined by the Director. A 1 mg/l total chlorine residual is recommended after disinfection and before the treated effluent goes into the distribution system.
- g. There shall be no visible sheen or floating solids or visible foam in other than trace amounts.
- 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 Manti decides to sample more frequently for these parameters, the additional data will be required as per Part V.E.
- l. Metals
 

Arsenic	Copper	Mercury	Silver
Cadmium	Cyanide	Nickel	Zinc
Total Chromium	Lead	Selenium	

**End Table 3 References**

**Reuse**

Limitations for reuse are based on Type II reuse requirements in R317-3-11.5. Since Bear River City is a Lagoon system they have been granted relaxation of their BOD<sub>5</sub> and TSS limitations, in accordance with R317-1-3.2. This reflects the same limits as the last permit cycle with the addition of a max monthly average limitation to be consistent with R317-3-11.5.

The permit limitations for Outfall 001R (Reuse) in Table 4.

<b>Table 4</b>					
<b>Parameter</b>	<b>Type II Reuse Outfall 001R Effluent Limitations<sup>a, b</sup></b>				
	<b>Max Monthly Average</b>	<b>Max Weekly Median</b>	<b>Max Daily Average</b>	<b>Minimum</b>	<b>Maximum</b>
BOD <sub>5</sub>	45	65	--	--	--
TSS	45	65	--	-	--
<i>E. coli</i> , No/100mL	--	126	--	--	500
pH, Standard Units	--	--	--	6.0	9.0

**Table 4 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.

**End Table 4 References**

### Reuse Self-Monitoring and Reporting Requirements

The permit will require reports to be submitted monthly and annually, as applicable, on Discharge Monitoring Report (DMR) and submitted using NetDMR. DMRs are due by the 28<sup>th</sup> day of the following month. Lab sheets for metals must be attached to the DMRs.

The following Type II reuse self-monitoring and reporting requirements have changed in order to be consistent with requirements in R317-3-11.5. The sampling frequencies reflect the minimum allowed for by R317-3-11.5.C.5. and the BOD<sub>5</sub> and TSS limits reflect the relaxation allowed for lagoons in R317-1-3.2.

<b>Outfall 002R</b>			
<b>Self-Monitoring and Reporting Requirements<sup>a, b, c</sup></b>			
<b>Parameter</b>	<b>Frequency</b>	<b>Sample Type</b>	<b>Units</b>
Applied Flow <sup>d</sup>	Continuous	Recorder	MGD
Irrigated Acreage	Monthly	Estimated	mg/L
BOD <sub>5</sub>	Monthly	Composite	mg/L
TSS	Weekly	Composite	mg/L
<i>E. coli</i> <sup>e</sup>	Weekly	Grab	No./100mL
pH	Weekly	Grab	SU
TRC <sup>f</sup>	Weekly	Grab	mg/L
Total Inorganic Nitrogen	Monthly	Grab	mg/L
Metals <sup>g, h, i</sup>	Annually	Comp/Grab	mg/L
Cell Depth	Monthly	Measure	Feet
Free Board	Monthly	Measure	Feet

#### **Table 5 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. Effluent shall only be disposed of by methods allowed by R317-3-11.5.A.
- d. Flow measurements of effluent volume shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained.
- e. If *E. coli* sampling exceeds effluent limitations, the permittee shall notify the Director within 24 hours and in writing within 5 days after becoming aware of the test result. The permittee shall perform an accelerated schedule of *E. coli* sampling to establish if there is a pattern. Accelerated sampling should begin within 24 hours after the permittee becomes aware of the test result. Accelerated testing is considered to be daily grab sampling of *E. coli*, until 2 consecutive tests are within permit limitations. If *E. coli* limits are exceeded for 5 consecutive tests, Bear River City shall stop reusing until an evaluation can be completed to determine cause of *E. coli* exceedances. Once the cause is resolved and documentation sent to the Director in writing, DWQ staff will review the findings and provide written approval to Bear River City to conduct reuse.
- f. The facility is required to disinfect to destroy, inactivate or remove pathogenic microorganisms by chemical, physical or biological means. Disinfection may be accomplished by chlorination, ozonation, or other chemical disinfectants, UV radiation. Or other approved processes. Chlorine residual is recommended but no longer required. Sampling not required if chlorination is not being used. The total residual chlorine shall be measured continuously and shall at no time be less than 1.0 mg/l after 30 minutes contact time at peak flow. If an alternative disinfection process is used, it must be demonstrated to the satisfaction of the Director that the alternative process is comparable to that achieved by chlorination with a 1 mg/l residual after 30 minutes contact time. If the effectiveness cannot be related to chlorination, then the effectiveness of the alternative disinfection process must be demonstrated by testing for pathogen destruction as determined by



the Director. A 1 mg/l total chlorine residual is recommended after disinfection and before the treated effluent goes into the distribution system.

- g. 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.
- h. 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 Manti decides to sample more frequently for these parameters, the additional data will be required as per Part V.E.

- i. Metals
 

Arsenic	Copper	Mercury	Silver
Cadmium	Cyanide	Nickel	Zinc
Total Chromium	Lead	Selenium	

**End Table 5 References**

<b>Table 6</b>	
<b>Land Application per Crop Type <sup>a</sup></b>	
Crop Type	List of crops grown on each site
Crop Harvest (tons/yr)	As measured based on harvest records
Land Application Area (acres)	Land treated process water effluent was applied based on application area
Number of Days per Season	Estimated (about 180 days/growing season)

**Table 6 References**

- a. Land Application Reports shall be summarized per crop type and submitted annually, no later than January 28<sup>th</sup> of the month following the completed reporting period.

**End Table 6 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.

**Management Practices for Land Application of Treated Effluent:**

- (1) The application of treated effluent to frozen, ice-covered, or snow covered land is prohibited.
- (2) No person shall apply treated effluent where the slope of the site exceeds 6 percent.
- (3) The use should not result in a surface water runoff.
- (4) The use must not result in the creation of an unhealthy or nuisance condition, as determined by the local health department.
- (5) Any irrigation with treated effluent must be at least 300 feet from a potable well.
- (6) For Type I reuse, any irrigation must be at least 50 feet from any potable water well.
- (7) For Type II reuse, any irrigation must be at least 300 feet from any potable water well.
- (8) For Type II reuse, spray irrigation must be at least 100 feet from areas intended for

- public access. This distance may be reduced or increased by the Director.
- (9) Impoundments of treated effluent, if not sealed, must be at least 500 feet from any potable well.
  - (10) Public access to effluent storage and irrigation or disposal sites shall be restricted by a stock-tight fence or other comparable means which shall be posted and controlled to exclude the public (Compliance Schedule for a Particular Parameter if necessary).

### **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

### **PRETREATMENT REQUIREMENTS**

Bear River will not be required to develop an approved pretreatment program. This decision is based on the following: the flow through the plant is less than five (5) MGD, there are no known Significant Industrial Users discharging to the Publicly Owned Treatment Works (POTW), and the POTW has not discharged in the last three years. Although Bear River does not have to develop an approved pretreatment program, any wastewater discharged to a POTW from an Industrial User (IU) is subject to Federal, State, and local regulations. Per Section 307 of the Clean Water Act, Bear River must comply with all applicable Federal General Pretreatment Regulations promulgated, found in 40 CFR 403 and the State Pretreatment Requirements found in UAC R317-8-8.

An industrial waste survey (IWS) is required per Part II of the permit. The IWS is to assess the need for pretreatment assistance. Based on a search of the service area and information stated in the application, the IWS is not required at this time. Bear River must notify DWQ per the requirements of the permit if an IU begins to discharge or an existing IU changes its discharge or process. Notification must be provided, by submitting information regarding the IU, no later than sixty days following the introduction or change as stated in Part II of the permit. Information and forms to assist with the IWS can be found in Attachment I of this document.

Sampling is not required for metals and toxic organic chemicals per the requirements of Part II of the permit. At this time, local limits have not been and are not required to be developed by Bear River. Although, Bear River is required to submit any local limits that are developed in the future for review and approval by the Director. Approval must be provided by the Director before the local limits are implemented by Bear River. If local limits are developed, it is required that Bear River 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 primarily land applies effluent, in which toxicity is neither an existing concern, nor likely to be present. Bear River City does not have any categorical industrial users, so 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.

PND Draft

**PERMIT DURATION**

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

Drafted by  
Leanna Littler, Discharge  
Jennifer Robinson, Pretreatment  
Lonnie Shull, Biomonitoring  
Sarah Leavitt Ward, Reuse  
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 Notice of the draft permit was posted on the Division of Water Quality's Public Notice Page: <https://deq.utah.gov/public-notices-archive/water-quality-public-notices#usm> .

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, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause problems in the collection system or at the waste treatment facility.
6. Waste haulers are prohibited from discharging without permission. (No midnight dumping!)

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

## An Industrial Waste Survey consists of:

### Step 1: Identify Industrial Users

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

Sources for the list:

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

Split the list into two groups:

domestic wastewater only--no further information needed

everyone else (IUs)

### Step 2: Preliminary Inspection

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

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

### Step 3: Informing the State

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

**Jennifer Robinson**

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

Phone: (801) 536-4383

Fax: (801) 536-4301

E-mail: [jenrobinson@utah.gov](mailto: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 washdown | 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.

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Inspector

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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](mailto:jenrobinson@utah.gov)

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

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**ATTACHMENT 2**

*Effluent Monitoring Data*

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	Parameter	Flow	BOD <sub>5</sub> mg/L	BOD <sub>5</sub> mg/L	TSS	TSS	E. coli No./100 mL	E. coli No./100 mL	pH	pH	DO	Oil & Grease	TRC, mg/L	TDS	Total P	Orthophosphate	Ammonia	Nitrate-Nitrite	TKN		
	Month	Daily Max	Max Weekly Avg.	Max Monthly Avg.	Max Weekly Avg.	Max Monthly Avg.	Max Weekly Avg.	Max Monthly Avg. Ma	Daily Min	Daily Max	Daily Min	Daily Max	Daily Max								
2017	Jan	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Feb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Mar	0.28	ND	ND	4	4	90	90	8.3	8.3	9.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Apr	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	May	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Jun	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Jul	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Aug	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Sep	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Oct	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Nov	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Dec	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2018	Jan	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Feb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Mar	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Apr	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	May	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Jun	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Jul	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Aug	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Sep	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Oct	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Nov	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Dec	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2019	Jan	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Feb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Mar	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Apr	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	May	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Jun	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Jul	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Aug	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Sep	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Oct	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Nov	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Dec	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	

\*ND=No Discharge

# **ATTACHMENT 3**

## *Wasteload Analysis*

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