

**Official Draft Public Notice Version March 9, 2023**

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  
MONA WASTEWATER TREATMENT PLANT  
RENEWAL PERMIT: DISCHARGE, BIOSOLIDS  
UPDES PERMIT NUMBER: UT0025950  
UPDES BIOSOLIDS PERMIT NUMBER: UTL-025950**

**FACILITY CONTACTS**

Person Name: Brent P. Arns  
Position: General Manager  
Phone Number: (435) 623-4913

Facility Name: Mona Wastewater Treatment Plant  
Mailing Address: P.O. Box 69  
Telephone: 50 West Center Street  
Actual Address: (435) 623-4913  
Mona, Utah 84645  
Approximately 300 West 560 North

**DESCRIPTION OF FACILITY**

Mona City (Mona) completed a new wastewater treatment plant in 2012. The facility has a design capacity of 0.5 MGD. The facility is a Membrane Bioreactor (MBR) serving a population of approximately 1600. The facility does not currently include any categorical industries in the service area. The facility is located at approximately 300 West 560 North. The influent enters the facility through 2 mm drum screens. The influent continues through the screening and grit removal to mix with return activated sludge and continue on to the anoxic basin, then to the aerobic basin. From there it continues to the membrane basins. The secondary effluent is pumped to a back-pulse tank where it overflows through UV disinfection and then to the discharge. The design has dual process trains that are able to run in parallel.

The sludge from the MBR process enters a screw press unit for dewatering of the sludge. The sludge is then disposed of in the landfill.

Currently Mona does not have any industrial users connected to the treatment plant, and has a low potential to cause toxicity. Over a previous permit cycle Mona had passed all the acute WET requirements in the permit. In 2017 the whole effluent toxicity testing (WET) requirements were removed from the permit. If conditions change in the future, the WET requirements may be reintroduced through the Toxicity Limitations Reopener Provision in *Part VII.Q* of the permit.

As a result of an inconclusive RP analysis for the 2017 renewal, ammonia limits were added to the permit as indicated by the WLA.

On January 1, 2020, UAC R317-1-3.3, Technology-Based Phosphorus Effluent Limit (TBPEL) Rule went into effect. At that time the permit was modified to add the annual mean of 1.0 mg/L for total phosphorus as a limit to the permit.

### **SUMMARY OF CHANGES FROM PREVIOUS PERMIT**

There have been no changes to the facility since the previous renewal

### **DISCHARGE**

#### **DESCRIPTION OF DISCHARGE**

Mona has been reporting self-monitoring results on Discharge Monitoring Reports on a monthly basis. There have been no violations. The data is included in Attachment 2 of this FSSOB.

<u>Outfall</u>	<u>Description of Discharge Point</u>
001	Located at latitude 39° 49' 34" North and longitude 111° 51' 47" West, approximately 750 feet west of proposed WWTP. The discharge through a 15-inch diameter gravity flow pipe, over a rip rap spreader, to wetlands then to Mona Reservoir.

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

The final discharge flows overland through a wetland to Mona Reservoir. The beneficial uses for Mona Reservoir are more stringent and the WLA is based on these uses.

The unclassified wetland has beneficial use of 2B and 3D according to *Utah Administrative Code (UAC) R317-2-13.13*

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.

The Mona Reservoir has a beneficial use of 2B, 3B, and 4 according to *Utah Administrative Code (UAC) R317-2-13.12.k*:

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

Class 3B -- Protected for warm water species of game fish and other warm water aquatic life, including the necessary aquatic organisms in their food chain.

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

### 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 Wetlands Adjacent to Mona Reservoir. 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 Level I review shows that water quality impacts are minimal. The permittee is expected to be able to comply with these limitations.

### Reasonable Potential Analysis

Since January 1, 2016, DWQ has conducted reasonable potential analysis (RP) on all new and renewal applications received after that date. RP for this permit renewal was conducted following DWQ's September 10, 2015 Reasonable Potential Analysis Guidance (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

Initial screening for metals values that were submitted through the discharge monitoring reports showed that none of the metals exceeded 50% of the standard. Consequently, there is no need to do any further RP analysis for metals. This result indicates that there are no changes to the monitoring requirements. Initial screening for ammonia values that were submitted through the discharge monitoring reports showed that there were not enough results to properly evaluate RP. This indicated that more sampling was required, and the limits were included.

The permit limitations are

Parameter	Effluent Limitations *a				
	Maximum Monthly Avg	Maximum Weekly Avg	Annual Average	Daily Minimum	Daily Maximum
Total Flow	0.5	-	-	-	-
BOD <sub>5</sub> , mg/L	25	35	-	-	-
BOD <sub>5</sub> Min. % Removal	85	-	-	-	-
TSS, mg/L	25	35	-	-	-
TSS Min. % Removal	85	-	-	-	-
Dissolved Oxygen, mg/L	-	-	-	3.0	-
Total Ammonia (as N), mg/L					
Summer (Jul-Sep)	3.12	-	-	-	6.95
Fall (Oct-Dec)	3.61	-	-	-	6.95
Winter (Jan-Mar)	3.98	-	-	-	6.95
Spring (Apr-Jun)	3.72	-	-	-	6.95
<i>E. coli</i> , No./100mL	126	157	-	-	-
Total Phosphorus, mg/L *k, *l, *i	-	-	1.0	-	-
Oil & Grease, mg/L	-	-	-	-	10.0
pH, Standard Units	-	-	-	6.5	9

\*a. see Definitions, *Part VIII*, for definition of terms.

## SELF-MONITORING AND REPORTING REQUIREMENTS

The following self-monitoring requirements are the same as in the previous permit. 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.

Self-Monitoring and Reporting Requirements *a			
Parameter	Frequency	Sample Type	Units
Total Flow *b, *c	Continuous	Recorder	MGD
BOD <sub>5</sub> , Influent *d Effluent	2 x Monthly 2 x Monthly	Composite Composite	mg/L mg/L
TSS, Influent *d Effluent	2 x Monthly 2 x Monthly	Composite Composite	mg/L mg/L
<i>E. coli</i>	2 x Monthly	Grab	No./100mL
pH	2 x Monthly	Grab	SU
DO	2 x Monthly	Grab	mg/L
Oil & Grease *f	2 x Monthly	Grab	mg/L
Total Ammonia (as N)	2 x Monthly	Grab	mg/L
Orthophosphate (as P), *k Effluent	Monthly	Composite	mg/L
Total Phosphorus (as P), *k Influent Effluent	Monthly Monthly	Composite Composite	mg/L mg/L
Total Kjeldahl Nitrogen TKN (as N), *k Influent Effluent	Monthly Monthly	Composite Composite	mg/L mg/L
Nitrate, NO <sub>3</sub> *k	Monthly	Composite	mg/L
Nitrite, NO <sub>2</sub> *k	Monthly	Composite	mg/L
Metals *l, Influent Effluent	Once Every 2 Calendar Years, *m Once Every 2 Calendar Years, *m	Grab/Composite Grab/Composite	mg/L mg/L
Organic Toxics *n	Once Every 2 Years, *m	Grab	mg/L
*a. see Definitions, Part VIII, for definition of terms.			
*b. Flow measurements of influent/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. 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. Oil & Grease sampled when sheen is present or visible. If no sheen is present or visible, No Data Indicator Code (NODI Code) of 9 should be used.			
*k. These reflect changes required with the adoption of UCA R317-1-3.3, Technology-based Phosphorus Effluent Limits rule.			
*l. Testing must be performed for the metals listed in the table below, and is conducted to support future RP analysis.			

\*m. Monitoring for these parameters must be performed by December 31st of the first, third and fifth years of the permit renewal cycle, with the results to be reported by DMR due on the 28<sup>th</sup> of the next month. Copies of the lab reports should be included with the DMR submission.

\*n. A list of the organics to be tested can be found in 40CFR122 appendix D table II.

Metals to be Monitored for RP
Total Arsenic
Total Cadmium
Total Chromium
Total Copper
Total Cyanide
Total Lead
Total Mercury
Total Molybdenum
Total Nickel
Total Selenium
Total Silver
Total Zinc

### **BIOSOLIDS**

For clarification purposes, sewage sludge is considered solids, until treatment or testing shows that the solids are safe, and meet beneficial use standards. After the solids are tested or treated, the solids are then known as biosolids. Class A biosolids, may be used for high public contact sites, such as home lawns and gardens, parks, or playing fields, etc. Class B biosolids may be used for low public contact sites, such as farms, rangeland, or reclamation sites, etc.

### **SUBSTANTIAL BIOSOLIDS TREATMENT CHANGES**

There have been no changes in the biosolids process since the permit was first issued.

### **DESCRIPTION OF TREATMENT AND DISPOSAL**

The solids are stabilized in activated sludge basins, with a solids retention time of approximately 60 days in the basins. Solids wasted on a daily basis are sent to be dewatered by screw presses to about 15 percent solids. After dewatering the solids are deposited into a five (5) yard dumpster which is emptied about two times a month and taken to the landfill.

Biosolids were hauled to the Juab Landfill by garbage truck. Approximately 25 DMT were hauled off-site to the landfill for disposal.

### **SELF-MONITORING REQUIREMENTS**

Under 40 CFR 503.16(a)(1), the self-monitoring requirements are based upon the amount of biosolids disposed per year and shall be monitored according to the chart below.

Minimum Frequency of Monitoring (40 CFR Part 503.16, 503.26, and 503.46)		
Amount of Biosolids Disposed Per Year		Monitoring Frequency
Dry US Tons	Dry Metric Tons	Per Year or Batch
> 0 to < 320	> 0 to < 290	Once Per Year or Batch
> 320 to < 1650	> 290 to < 1,500	Once a Quarter or Four Times
> 1,650 to < 16,500	> 1,500 to < 15,000	Bi-Monthly or Six Times
> 16,500	> 15,000	Monthly or Twelve Times

Mona has produced and disposed of an average of disposed of 30 DMT/year of biosolids, therefore they should sample at least once a year. However, Mona transfers the biosolids to the Juab Landfill as long as they continue to do this, they are only required to sample when requested by the landfill according to *40 CFR 258* for the landfill.

#### Landfill Monitoring

Under *40 CFR 258*, the landfill monitoring requirements include a paint filter test. If the biosolids do not pass a paint filter test, the biosolids cannot be disposed in the sanitary landfill (*40 CFR 258.28(c)(1)*). Mona has disposed of an average of XXX DMT/year of biosolids over the past 10 years at the Juab County Landfill.

## **BIOSOLIDS LIMITATIONS**

#### Heavy Metals

##### Class A Biosolids for Home Lawn and Garden Use

The intent of the heavy metals regulations of Table 3, *40 CFR 503.13* is to ensure the heavy metals do not build up in the soil in home lawn and gardens to the point where the heavy metals become phytotoxic to plants. The permittee will be required to produce an information sheet (see *Part III. C.* of the permit) to be made available to all people who are receiving and land applying Class A biosolids to their lawns and gardens. If the instructions of the information sheet are followed to any reasonable degree, the Class A biosolids will be able to be land applied year after year, to the same lawns and garden plots without any deleterious effects to the environment. The information sheet must be provided to the public, because the permittee is not required, nor able to track the quantity of Class A biosolids that are land applied to home lawns and gardens.

##### Class A Requirements With Regards to Heavy Metals

If the biosolids are to be applied to a lawn or home garden, the biosolids shall not exceed the maximum heavy metals in Table 3 below. If the biosolids do not meet these requirements, the biosolids cannot be sold or given away for applications to home lawns and gardens.

##### Class B Requirements for Agriculture and Reclamation Sites

The intent of the heavy metals regulations of Tables 1, 2 and 3, of *40 CFR 503.13* is to ensure that heavy metals do not build up in the soil at farms, forest land, and land reclamation sites to the point where the heavy metals become phytotoxic to plants. The permittee will be required to produce an information sheet (see *Part III. C.* of the permit) to be handed out to all people who are receiving and land applying Class B biosolids to farms, ranches, and land reclamation sites (if biosolids are only applied to land owned by the permittee, the information sheet requirements are waived). If the biosolids are land applied according to the regulations of *40 CFR 503.13*, to any reasonable degree, the Class B biosolids will be able to be land applied year after year, to the same farms, ranches, and land reclamation sites without any deleterious effects to the environment.

Class B Requirements with Regards to Heavy Metals

If the biosolids are to be land applied to agricultural land, forest land, a public contact site or a reclamation site it must meet at all times:

The maximum heavy metals listed in *40 CFR Part 503.13(b) Table 1* and the heavy metals loading rates in *40 CFR Part 503.13(b) Table 2*; or

The maximum heavy metals in *40 CFR Part 503.13(b) Table 1* and the monthly heavy metals concentrations in *40 CFR Part 503.13(b) Table 3*.

Tables 1, 2, and 3 of Heavy Metal Limitations

Pollutant Limits, (40 CFR Part 503.13(b)) Dry Mass Basis				
Heavy Metals	Table 1	Table 2	Table 3	Table 4
	Ceiling Conc. Limits <sup>1</sup> , (mg/kg)	CPLR <sup>2</sup> , (mg/ha)	Pollutant Conc. Limits <sup>3</sup> (mg/kg)	APLR <sup>4</sup> , (mg/ha-yr)
Total Arsenic	75	41	41	2.0
Total Cadmium	85	39	39	1.9
Total Copper	4300	1500	1500	75
Total Lead	840	300	300	15
Total Mercury	57	17	17	0.85
Total Molybdenum	75	N/A	N/A	N/A
Total Nickel	420	420	420	21
Total Selenium	100	100	100	5.0
Total Zinc	7500	2800	2800	140
1, If the concentration of any 1 (one) of these parameters exceeds the Table 1 limit, the biosolids cannot be land applied or beneficially used in any way.				
2, CPLR - Cumulative Pollutant Loading Rate - The maximum loading for any 1 (one) of the parameters listed that may be applied to land when biosolids are land applied or beneficially used on agricultural, forestry, or a reclamation site.				
3, If the concentration of any 1 (one) of these parameters exceeds the Table 3 limit, the biosolids cannot be land applied or beneficially used in on a lawn, home garden, or other high potential public contact site. If any 1 (one) of these parameters exceeds the Table 3 limit, the biosolids may be land applied or beneficially reused on an agricultural, forestry, reclamation site, or other high potential public contact site, as long as it meets the requirements of Table 1, Table 2, and Table 4.				
4, APLR - Annual Pollutant Loading Rate - The maximum annual loading for any 1 (one) of the parameters listed that may be applied to land when biosolids are land applied or beneficially reused on agricultural, forestry, or a reclamation site, when they do not meet Table 3, but do meet Table 1.				

Any violation of these limitations shall be reported in accordance with the requirements of Part III.F.1. of the permit. If the biosolids do not meet these requirements they cannot be land applied.

Pathogens

The Pathogen Control class listed in the table below must be met;

Pathogen Control Class	
503.32 (a)(1) - (5), (7), (8), Class A	503.32 (b)(1) - (5), Class B
B <i>Salmonella</i> species –less than three (3) MPN <sup>1</sup> per four (4) grams total solids (DWB) <sup>2</sup> or Fecal Coliforms – less than 1,000 MPN per gram total solids (DWB).	Fecal Coliforms – less than 2,000,000 MPN or CFU <sup>3</sup> per gram total solids (DWB).
503.32 (a)(6) Class A—Alternative 4	
B <i>Salmonella</i> species –less than three (3) MPN per four (4) grams total solids (DWB) or less than 1,000 MPN Fecal Coliforms per gram total solids (DWB), And - Enteric viruses –less than one (1) plaque forming unit per four (4) grams total solids (DWB) And - Viable helminth ova –less than one (1) per four (4) grams total solids (DWB)	
1 - MPN – Most Probable Number	
2 - DWB – Dry Weight Basis	
3 - CFU – Colony Forming Units	

Class A Requirements for Home Lawn and Garden Use

If biosolids are land applied to home lawns and gardens, the biosolids need to be treated by a specific process to further reduce pathogens (PFRP), and meet a microbiological limit of less than 3 most probable number (MPN) of *Salmonella* per 4 grams of total solids (or less than 1,000 most probable number (MPN/g) of fecal coliform per gram of total solids) to be considered Class A biosolids.

Mona does not intend to give away biosolids for land application on home lawns or gardens, and will therefore not be required to meet PFRP. If the permittee changes their intentions in the future, they will need to meet a specific PFRP, the Director and the EPA must be informed at least thirty (30) days prior to its use. This change may be made without additional public notice.

The practice of sale or giveaway to the public is an acceptable use of biosolids of this quality as long as the biosolids continue to meet Class A standards with respect to pathogens. If the biosolids do not meet Class A pathogen standards the biosolids cannot be sold or given away to the public, and the permittee will need find another method of beneficial use or disposal.

Pathogens Class B

If biosolids are to be land applied for agriculture or land reclamation the solids need to be treated by a specific process to significantly reduce pathogens (PSRP). Mona does not intend to land apply the biosolids and will therefore not be required to meet PSRP. If the permittee intends to land apply in the future, they will need to meet a specific PSRP, the Director and the EPA must be informed at least thirty (30) days prior to its use. This change may be made without additional public notice.

Vector Attraction Reduction (VAR)

If the biosolids are land applied Mona will be required to meet VAR through the use of a method of listed under 40 CFR 503.33. Mona does not intend to land apply the biosolids and will therefore not be required to meet VAR. If the permittee intends to land apply in the future, they need to meet one of the listed alternatives in 40 CFR 503.33, the Director and the EPA must be informed at least thirty (30) days prior to its use. This change may be made without additional public notice.

#### Landfill Monitoring

Under *40 CFR 258*, the landfill monitoring requirements include a paint filter test to determine if the biosolids exhibit free liquid. If the biosolids do not pass a paint filter test, the biosolids cannot be disposed in the sanitary landfill (*40 CFR 258.28(c)(1)*).

#### Record Keeping

The record keeping requirements from *40 CFR 503.17* are included under *Part III.G.* of the permit. The amount of time the records must be maintained are dependent on the quality of the biosolids in regards to the metals concentrations. If the biosolids continue to meet the metals limits of *Table 3* of *40 CFR 503.13*, and are sold or given away the records must be retained for a minimum of five years. If the biosolids are disposed in a landfill the records must be retained for a minimum of five years.

#### Reporting

Mona must report annually as required in *40 CFR 503.18*. This report is to include the results of all monitoring performed in accordance with *Part III.B* of the permit, information on management practices, biosolids treatment, and certifications. This report is due no later than February 19 of each year. Each report is for the previous calendar year.

### **MONITORING DATA**

During the previous permit, Mona did not meet the requirements to sample.

### **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 may be required based on the Standard Industrial Classification (SIC) code for the facility and the types of industrial activities occurring. If the facility is not already covered, it has 30 days from when this permit is issued to submit the appropriate Notice of Intent (NOI) for the MSGP or exclusion documentation. Previously storm water discharge requirements and coverage were combined in this individual permit. These have been separated to provide consistency among permittees, electronic reporting for storm water discharge monitoring reports, and increase flexibility to changing site conditions.

Information on storm water permit requirements can be found at <http://stormwater.utah.gov>

### **PRETREATMENT REQUIREMENTS**

The permittee does not have an Approved POTW Pretreatment Program (Program). This is due to the flow through the plant being less than five (5) MGD. Although the permittee does not have to develop a Program, information regarding Industrial Users discharging to the Publicly Owned Treatment Works (POTW) must be submitted within 60 days of the effective date of the permit as stated in Part II of the permit. This information will assist in determining the needs of the permittee regarding pretreatment assistance. If an Industrial User begins to discharge or an existing Industrial User changes their discharge, the permittee must resubmit the information stated in Part II no later than sixty days following the introduction or change.

Any wastewater discharged to the POTW from an Industrial User is subject to Federal, State and local regulations. Pursuant to Section 307 of the Clean Water Act, the permittee shall comply with all applicable Federal General Pretreatment Regulations promulgated, found in *40 CFR 403*, and the State Pretreatment

Requirements found in UAC R317-8-8.

It is required that any Local Limits be submitted 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**

As part of the nationwide effort to control toxics, biomonitoring requirements are being included in all major permits and in minor permits for facilities where effluent toxicity is an existing or potential concern. Authorization for requiring effluent biomonitoring is provided for in UAC R317-8-4.2 and R317-8-5.3. The Whole Effluent Toxicity (WET) Control Guidance Document, February 15, 1991, outlines guidance to be used by Utah Division of Water Quality staff and by permittee's for implementation of WET control through the UPDES discharge permit program.

Mona City is a minor facility with no reasonable potential for toxicity in the effluent. As a result, biomonitoring of the effluent will not be required. However, the permit will contain a WET reopen provision.

### **PERMIT DURATION**

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

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

### **PUBLIC NOTICE**

Began: Month Day, 2023  
Ended: Month Day, 2023

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 on the Division of Water Quality Public Notice Webpage.

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.

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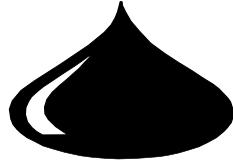
**ATTACHMENT 1**

*Industrial Waste Survey*

PV Draft

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# Industrial Pretreatment Wastewater Survey



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

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

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

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

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

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

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

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

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

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

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

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

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

## An Industrial Waste Survey consists of:

### Step 1: Identify Industrial Users

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

Sources for the list:

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

Split the list into two groups:

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

### Step 2: Preliminary Inspection

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

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

### Step 3: Informing the State

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

**Jennifer Robinson**

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

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

## PRELIMINARY INSPECTION FORM

**INSPECTION DATE**        /        /

**Name of Business  
Address**

**Person Contacted** \_\_\_\_\_  
**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) _____	

[ ] Other (describe) \_\_\_\_\_

Is a grease trap installed? Yes No

Is a grease trap installed? 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

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

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

**Phone: (801) 536-4383  
Fax: (801) 536-4301**

**E-Mail: [jenrobinson@utah.gov](mailto:jenrobinson@utah.gov)**

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

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**ATTACHMENT 2**

*Effluent Monitoring Data*

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## Effluent Monitoring Data.

Effluent Monitoring Results										
	BOD5		TSS		DO	pH		E. coli		O & G
	25	35	25	35	3	6.5	9	157	126	10
	mg/L		mg/L		mg/L	SU		#/100mL		mL/L
Month	Chronic	Acute	Chronic	Acute	Min	Min	Max	Acute	Chronic	Max
Jan-20	ND	ND	ND	ND	8.2	7.4	7.5	0.83	3.32	0
Feb-20	ND	ND	ND	ND	9.6	7.9	7.9	ND	ND	0
Mar-20	ND	ND	ND	ND	7.8	7.5	7.6	2.75	11	0
Apr-20	6	1.5	ND	ND	7.6	7.4	7.4	3.93	15.72	0
May-20	11	2.75	ND	ND	8	7.5	7.5	3.5	14	0
Jun-20	5	1.25	ND	ND	7.6	7.6	7.6	21.29	85.17	0
Jul-20	3	0.75	ND	ND	7.4	7.5	7.6	3.5	14	0
Aug-20	ND	ND	ND	ND	8	7.6	7.7	5.8	23.3	0
Sep-20	ND	ND	ND	ND	8.7	7.8	8	ND	ND	0
Oct-20	ND	ND	ND	ND	7.3	7.5	7.5	2.18	8.72	0
Nov-20	ND	ND	ND	ND	7.1	7.5	7.5	12.59	50.37	0
Dec-20	ND	ND	ND	ND	7.3	7.5	7.6	6.49	25.98	0
Jan-21	7	1.75	ND	ND	7.2	7.6	7.6	3.75	15	0
Feb-21	7.5	1.88	ND	ND	7.2	7.5	7.6	16.1	64.5	0
Mar-21	7	1.75	ND	ND	7.3	7.6	7.6	13.5	54	0
Apr-21	27	6.75	ND	ND	7.4	7.1	7.1	6.5	26	0
May-21	ND	ND	ND	ND	9.1	7.7	7.7	0.25	1	0
Jun-21	ND	ND	ND	ND	8.5	7.4	7.4	0.5	2	0
Jul-21	ND	ND	ND	ND	8.3	7.8	7.8	ND	ND	0
Aug-21	6	1.5	ND	ND	7.6	7.1	7.2	1.5	6	0
Sep-21	9	2.25	ND	ND	7.2	7.2	7.3	0.967	3.87	0
Oct-21	7	1.75	ND	ND	7.2	6.8	7.2	1	4	0
Nov-21	ND	ND	ND	ND	8.1	7.5	7.6	0.35	1.41	0
Dec-21	7.5	1.88	ND	ND	7.9	7.3	7.5	0.15	0.63	0
Jan-22	3.5	0.875	ND	ND	7.3	7.3	7.5	0.35	1.41	0
Feb-22	7.5	1.88	ND	ND	7.6	7.2	7.5	6.09	24.37	0
Mar-22	9	2.25	ND	ND	7.7	7.3	7.6	5.3	21.21	0
Apr-22	10	2.5	ND	ND	8.6	7.2	7.2	5.77	23.07	0
May-22	ND	ND	ND	ND	8.4	7.6	7.7	0.25	1	0
Jun-22	6	1.25	ND	ND	8.1	7.4	8.1	0.56	2.24	0
Jul-22	ND	ND	ND	ND	7.5	7.4	7.45	2.48	9.95	0
Aug-22	7	1.75	ND	ND	7.2	7.2	7.9	ND	ND	0
Sep-22	4.5	1.13	ND	ND	7.1	7.4	7.6	ND	ND	0
Oct-22	17.5	4.38	ND	ND	7.2	7.4	7.5	0.35	1.41	0
Nov-22	12.5	3.13	ND	ND	8.1	7.3	7.6	1.25	5	0
Dec-22	12.5	3.13	ND	ND	7.1	7.5	7.6	4.94	19.75	0

ND => Non-Detect, Result below Method Detection Limit

TBPEL Monitoring Results					
	Influent	Effluent			
	Total P mg/L	NH3+NH2 mg/L	Ortho P mg/L	TKN mg/L	Total P mg/L
Month	Average	Average	Average	Average	Average
Jan-20	6.2	0.2	1.3	1.1	1.4
Feb-20	5.2	0.3	0.08		0.04
Mar-20	8.9	0.1	2		2.2
Apr-20	8.7	1.7	2.4	8.3	2.4
May-20	8.6	1.5	2.1	6.9	2.3
Jun-20	8.7		5.7	33.7	6.2
Jul-20	6.1		0.12	26.7	
Aug-20	7			33.5	2.1
Sep-20	8.6	0.4	0.01		
Oct-20	8.3	0.5	2.2	26.4	2.6
Nov-20	7.8	1	0.48	19.8	0.51
Dec-20	11	0.3	8.7	16.6	9.1
Jan-21	8.1	0.7	0.31	33.9	0.33
Feb-21	8.8	1.2	0.27	22.5	0.4
Mar-21	8.1	1.2	0.48	18	0.69
Apr-21	8.3	1.2	1.1	22.2	1.5
May-21	7.9	0.3	0.06		0.04
Jun-21	8.1	1.4	0.1	4.7	0.11
Jul-21	7.3	0.4	0.02		0.06
Aug-21	8.9	0.4	0.05		0.08
Sep-21	7.8	1.3	0.05	9.8	0.03
Oct-21	7.4	1.5	0.9	2.5	0.9
Nov-21	6.7		4.1		4.4
Dec-21	6.8	0.2	3.8		4.5
Jan-22	6.9		0.56		0.6
Feb-22	7.4	0.5	3.7	6.5	4.1
Mar-22	6.7		1.8	26.5	1.9
Apr-22	159	0.2	8.6	9	9
May-22	78.5	2.5	0.56		0.5
Jun-22	9.5	9.7	4.1		4.1
Jul-22	16.5	6.6	5.2		3.9
Aug-22	24.5	3.5	1.1		1
Sep-22	4.7	1.4	0.3		0.4
Oct-22	7.1	1.6	2.4	10.3	2.7
Nov-22	9.2	1.29	0.31		0.4
Dec-22	23	0.72	2.5	22.8	2.7

**ATTACHMENT 3**

*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 Analysis<sup>1</sup>. 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.

Initial screening for metals values that were submitted through the discharge monitoring reports showed that none of the metals exceeded 50% of the standard. Consequently, there is no need to do any further RP on metals. This result indicates that there are no changes to the monitoring requirements.

The Metals Initial Screening Table is included below.

Metal	Chronic	Acute	2019	2021	ND	Max	CRP	ARP
Cyanide	3.0125	0.1194	0.002	ND		0.002	No	No
Arsenic	0.34	0.15	ND	ND		0	No	No
Cadmium	0.0043	0.0005	ND	ND		0	No	No
Chromium	0.016	0.011	0.0025	0.0011		0.003	No	No
Copper	0.0269	0.0169	ND	ND		0	No	No
Lead	0.197	0.0077	ND	ND		0	No	No
Molybdenum	1	1	0.0016	0.0015		0.002	No	No
Nickel	0.843	0.0938	0.0007	0.0007		0.0007	No	No
Silver	0.0125	0.0125	ND	ND		0	No	No
Zinc	0.216	0.216	0.05	0.04		0.05	No	No
Selenium	0.0184	0.0046	0.0012	0.0005		0.001	No	No
Mercury	0.0024	0.000012	ND	ND		0	No	No

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