**FACT SHEET AND STATEMENT OF BASIS**

#### FAIRVIEW CITY

#### RENEWAL PERMIT: DISCHARGE, BIOSOLIDS & STORM WATER

**UPDES PERMIT NUMBER: UT0025542**

**UPDES BIOSOLIDS PERMIT NUMBER: UTL-0025542**

**MINORMUNICIPAL**

# FACILITY CONTACTS

Person Name: Justin Jackson

Position: Water and Sewer Superintendent

Phone Number: (801) 362-2738

Person Name: Dave J. Taylor

Position: Mayor

Facility Name: Fairview City

Mailing and Facility Address: PO Box 97

 Fairview City, Utah 84629

Telephone: (435) 427-3858

Actual Address: 22855 North Highway 89, Fairview 84629

###### DESCRIPTION OF FACILITY

Fairview City constructed a new wastewater treatment plant in July 2005. The facility has a design capacity of 0.3 MGD and is a Membrane Bioreactor (MBR) serving a population of approximately 1800. It is located 1¼-miles south of Fairview along Highway 89. The influent flows through screening and grit removal, then to a splitter box where it can be divided between 2 process trains. Currently only one process train is needed and is being used. First step is an anoxic basin, then aeration basin, then the MBR basin. Effluent water is piped from the membranes to a chlorine contact chamber (tank), past an effluent sample port and out, either over a water feature or directly to a channel that takes the effluent to a constructed pond on site. The effluent flows out of the pond through a pipe where it mixes with groundwater that is being removed from around the structure. The16 inch pipe empties into the San Pitch River.

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

Fairview City is interested, at a future date, in reusing its effluent. The effluent will be used for irrigation purposes in accordance with Type II Reuse. Reuse will not be addressed in this permit, but will be considered in the future.

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

1. WLA Model

A new model is used by Water Quality to develop a waste load allocation (WLA) for dischargers to Waters of the State. Since the permit was first issued, Water Quality has managed to acquire more data on the receiving stream.

1. RP

During the permit cycle, Water Quality has worked to improve our reasonable potential analysis (RP) for parameters that might have effluent limits included in the permit by using an EPA developed model. The results of the RP Analysis are included in Attachment 3 of the FSSOB.

1. Ammonia Limit

The WLA for the discharge indicated ammonia could require an effluent limitation in the permit. A review of the available data is not able to clearly indicate the RP on a seasonal basis, but it is indicated when all the data is compared to the most stringent season value. Therefore seasonal effluent limits for ammonia are being included in the permit.

1. Dissolved Oxygen Monitoring

The WLA for the discharge indicates dissolved oxygen could require effluent limitations in the permit. A limit for DO is included in this renewal permit. The effluent limit is a daily minimum of 5.0 mg/L.

1. TBPEL Rule

Water Quality adopted UAC R317-1-3.3, Technology-Based Phosphorus Effluent Limit (TBPEL) Rule on December 16, 2014. The TBPEL rule as it relates to "non-lagoon" wastewater treatment plants establishes new regulations for the discharge of phosphorus to surface waters and is self-implementing. The TBPEL rule includes the following requirements for non-lagoon wastewater treatment plants:

The TBPEL requires that all non-lagoon wastewater treatment works discharging wastewater to surface waters of the state shall provide treatment processes which will produce effluent less than or equal to an annual mean of 1.0 mg/L for total phosphorus. This TBPEL shall be achieved by January 1, 2020.

The TBPEL discharging treatment works are required to implement, at a minimum, monthly monitoring of the following beginning July 1, 2015:

R317-1-3.3, D, 1 Influent for total phosphorus (as P) and total Kjeldahl nitrogen (as N) concentrations;

R317-1-3.3, D, 2. Effluent for total phosphorus and orthophosphate (as P), ammonia, nitrate-nitrite and total Kjeldahl nitrogen (an N);

In R317-1-3.3, D, 3 the rule states that all monitoring shall be based on 24-hour composite samples by use of an automatic sampler or a minimum of four grab samples collected a minimum of two hours apart.

###### DISCHARGE

DESCRIPTION OF DISCHARGE

Fairview City has been reporting self-monitoring results on Discharge Monitoring Reports on a monthly basis. A summary of the last 4 years of data is attached and there were no significant violations.

Outfall Description of Discharge Point

 001 Located at latitude 39º36'23" and longitude 111º26'50". The effluent will be discharged through a 16-inch diameter gravity flow HDPE pipe to the San Pitch River.

RECEIVING WATERS AND STREAM CLASSIFICATION

The final discharge is into the San Pitch River with a classification of 2B, 3A and 4 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 3A -- Protected for cold water species of game fish and other cold water aquatic life, including the necessary aquatic organisms in their food chain.

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

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 San Pitch River (WLA) which includes Water Quality Base d Effluent Limits (WQBELs). Ammonia limits are based on the WLA. 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.

A quantitative RP analysis was performed on ammonia to determine if there was reasonable potential for the discharge to exceed the applicable water quality standards. Based on the RP analysis, ammonia was determined to have a reasonable potential to exceed the most stringent chronic and acute water quality standard. A copy of the RP analysis is included at the end of this Fact Sheet.

The permit limitations are

| Parameter | Effluent Limitations [[1]](#footnote-1) |
| --- | --- |
| Maximum Monthly Avg | Maximum Weekly Avg | YearlyAverage | Daily Minimum | Daily Maximum |
| Total Flow, MGD | 0.3 | - | - | - | - |
| BOD5, mg/LBOD5 Min. % Removal | 2585 | 35- | -- | -- | -- |
| TSS, mg/LTSS Min. % Removal | 2585 | 35- | -- | -- | -- |
| Dissolved Oxygen, mg/L | - | - | - | 5.0 | - |
| TRC, mg/L | - | - | - | - | 0.14 |
| *E. coli*, No./100mL | 126 | 157 | - | - | - |
| Total Ammonia (as N), mg/LSummer (Jul-Sep)Fall (Oct-Dec)Winter (Jan-Mar)Spring (Apr-Jun) | 10201018 | -------- | -------- | -------- | 14241018 |
| Oil & Grease, mg/L | - | - | - | - | 10.0 |
| pH, Standard Units | - | - | - | 6.5 | 9.0 |

SELF-MONITORING AND REPORTING REQUIREMENTS

The following self-monitoring requirements are updated from 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 1 |
| --- |
| Parameter | Frequency | Sample Type | Units |
| Total Flow [[2]](#footnote-2), [[3]](#footnote-3) | Continuous | Recorder | MGD |
| BOD5, Influent [[4]](#footnote-4)Effluent | 2 x Monthly2 x Monthly | CompositeComposite | mg/Lmg/L |
| TSS, Influent 4Effluent | 2 x Monthly2 x Monthly | CompositeComposite | mg/Lmg/L |
| *E. coli* | 2 x Monthly | Grab | No./100mL |
| pH | 2 x Monthly | Grab | SU |
| Total Ammonia (as N) | 2 x Monthly | Grab | mg/L |
| DO | 2 x Monthly | Grab | mg/L |
| TRC, mg/L, [[5]](#footnote-5) | 5 x Week | Grab | mg/L |
| Oil & Grease [[6]](#footnote-6) | Monthly | Grab | mg/L |
| TBPEL Rule Monitoring[[7]](#footnote-7) |
| Total Ammonia (as N) 7 | Monthly | Composite | mg/L |
| Orthophosphate, (as P)7 Effluent | Monthly | Composite | mg/L |
| Phosphorus, Total 7 InfluentEffluent | MonthlyMonthly | CompositeComposite | mg/L mg/L |
| Total Kjeldahl Nitrogen, TKN (as N) 7InfluentEffluent | MonthlyMonthly | CompositeComposite | mg/L mg/L |
| Nitrate, NO3 7 | Monthly | Composite | mg/L |
| Nitrite, NO2 7 | Monthly | Composite | mg/L |

**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.

DESCRIPTION OF TREATMENT AND DISPOSAL

The Permittee submitted their 2016 annual biosolids report on February 27, 2018. The report states the Permittee produced 122 dry metric tons (DMT) of solids that were disposed of at the county landfill.

The wastewater solids are stabilized during the membrane bioreactor process (MBR) with an average retention time of over 60 days. The wastewater solids from the MBR process are de-watered using a belt press and disposed of in a landfill.

The last inspection conducted at the facility was September 27, 2017. The inspection showed that Fairview City was in compliance with all aspects of the biosolids management program.

**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 |

Over the last five years Fairview has produced on average 120 Dry Metric Tons. Accordingly, they will sample at least one time per year.

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).*

**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 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 1 and the monthly average pollutant concentrations in Table 3 (see Table 1 and 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 1Ceiling Conc. Limits, (mg/kg) | Table 2CPLR[[8]](#footnote-8), (mg/ha) | Table 3Pollutant Conc. Limits, (mg/kg) | Table 4APLR[[9]](#footnote-9), (mg/ha-yr) |
| Total Arsenic | 75 | 41 | 41 | 41 |
| Total Cadmium | 85 | 39 | 39 | 39 |
| Total Copper | 4300 | 1500 | 1500 | 1500 |
| Total Lead | 840 | 300 | 300 | 300 |
| Total Mercury | 57 | 17 | 17 | 17 |
| Total Molybdenum | 75 | N/A | N/A | N/A |
| Total Nickel | 420 | 420 | 420 | 420 |
| Total Selenium | 100 | 100 | 100 | 100 |
| Total Zinc | 7500 | 2800 | 2800 | 2800 |

 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 |
| --- |
| Class A | Class B |
| B Salmonella species –less than three (3) MPN[[10]](#footnote-10) per four (4) grams total solids (or less than 1,000 fecal coliforms per gram total solids). or | Fecal Coliforms – less than 2,000,000 MPN per gram total solids. or |
| Fecal Coliforms – less than 1,000 MPN per gram total solids.  | Fecal Coliforms – less than 2,000,000 CFU[[11]](#footnote-11) per gram total solids. |
| For 503.32,(a),(5) and (6) Include the Following |  |
| And - Enteric viruses –less than one (1) MPN (or plaque forming unit) per four (4) grams total solids  |   |
| And - Viable helminth ova –less than one (1) MPN per four (4) grams total solids |  |

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 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.

Fairview City 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). Fairview City 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 Fairview will be required to meet VAR through the use of a method of listed under *40 CFR 503.33.*  Fairview City is meeting vector attraction reduction through daily cover at the landfill.

1. Under *40 CFR 503.33(b)(11),* Sewage sludge placed on an active sewage sludge unit shall be covered with soil or other material at the end of each operating day.

If the biosolids do not meet a method of VAR, the biosolids cannot be land applied.

If the permittee intends to use another 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 retained for a minimum of five years.

Reporting

Fairview City 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.

###### STORM WATER

STORMWATER REQUIREMENTS

The *Utah Administrative Code (UAC) R-317-8-3* requires storm water permit provisions to include the development of a storm water pollution prevention plan for waste water treatment facilities if the facility meets one or both of the following criteria:

1. Wastewater treatment facilities with a design flow of 1.0 MGD or greater, and/or,
2. Wastewater treatment facilities with an approved pretreatment program as described in *40 CFR Part 403.*

Fairview City does not meet any of the above criteria; therefore this permit does not include storm water provisions. A storm water re-opener provision is included in the permit should a storm water permit be needed in the future.

## 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 categorical industries discharging to the treatment facility, industrial discharges comprise less than 1 percent of the flow through the treatment facility, and there is no indication of pass through or interference with the operation of the treatment facility such as upsets or violations of the POTW's UPDES permit limits*.*

Although the permittee does not have to develop a State-approved pretreatment program, any wastewater discharges to the sanitary sewer are 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.

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 a minimal amount of effluent, in which toxicity is neither an existing concern, nor likely to be present. Based on this consideration, there is no reasonable potential for toxicity in the permittee’s discharge (per State of Utah Permitting and Enforcement Guidance Document for WET Control, February 2018). 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

Daniel Griffin, P.E., Discharge, Biosolids, Reasonable Potential Analysis

Jennifer Robinson, Pretreatment

Lisa Stevens, Storm Water

Nick von Stackelberg, Wasteload Analysis

Utah Division of Water Quality, (801) 536-4300

**PUBLIC NOTICE**

Began: December 13, 2018

Ended: January 14, 2019

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 Pyramid.

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.

No Comments were received regarding this permit.

DWQ-2018-007478

This Page Intentionally Left Blank

**ATTACHMENT 1**

*Industrial Waste Survey*

This Page Intentionally Left Blank

**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

F:\WP\Pretreatment\Forms\IWS.doc

**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. [ ] Domestic wastes (Restrooms, employee showers, etc.)**

**2. [ ] Cooling water, non-contact 3. [ ] Boiler/Tower blowdown**

**4. [ ] Cooling water, contact 5. [ ] Process**

**6. [ ] Equipment/Facility washdown 7. [ ] Air Pollution Control Unit**

**8. [ ] Storm water runoff to sewer 9. [ ] Other describe**

**Wastes are discharged to (check all that apply):**

**[ ] Sanitary sewer [ ] Storm sewer**

**[ ] Surface water [ ] Ground water**

**[ ] Waste haulers [ ] Evaporation**

**[ ] 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:**

**[ ] Adhesives [ ] Car Wash**

**[ ] Aluminum Forming [ ] Carpet Cleaner**

**[ ] Battery Manufacturing [ ] Dairy**

**[ ] Copper Forming [ ] Food Processor**

**[ ] Electric & Electronic Components [ ] Hospital**

**[ ] Explosives Manufacturing [ ] Laundries**

**[ ]** **Foundries [ ] Photo Lab**

**[ ]** **Inorganic Chemicals Mfg. or Packaging [ ] Restaurant & Food Service**

**[ ] Industrial Porcelain Ceramic Manufacturing [ ] Septage Hauler**

**[ ] Iron & Steel [ ] Slaughter House**

**[ ] Metal Finishing, Coating or Cleaning**

**[ ] Mining**

**[ ] Nonferrous Metals Manufacturing**

[ ] **Organic Chemicals Manufacturing or Packaging**

**[ ] Paint & Ink Manufacturing**

**[ ] Pesticides Formulating or Packaging**

**[ ] Petroleum Refining**

**[ ] Pharmaceuticals Manufacturing or Packaging**

**[ ] Plastics Manufacturing**

**[ ] Rubber Manufacturing**

**[ ] Soaps & Detergents Manufacturing**

**[ ] Steam Electric Generation**

**[ ] Tanning Animal Skins**

**[ ] 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 |  |  |  |  |  |  |  |

This Page Intentionally Left Blank

**ATTACHMENT 2**

*Effluent Monitoring Data*

This Page Intentionally Left Blank

**Effluent Monitoring Data.**

|  |
| --- |
| Effluent Monitoiring Results |
|  | Flow | pH | TRC | BOD | TSS | E. coli |
|  | Chronic | Min | Max | Max | Chronic | Acute | Chronic | Acute | Chronic | Acute |
|  | 0.3 | 6.5 | 9 | 0.2 | 25 | 35 | 25 | 35 | 126 | 157 |
| Jul-15 | 0.11 | 7.6 | 7.6 | 0.2 | ND | ND | 4 | 2 | 85 | 110 |
| Aug-15 | 0.091 | 7.6 | 7.6 | 0.2 | ND | ND | ND | ND | 11 | 28 |
| Sep-15 | 0.083 | 7.8 | 7.8 | 0.18 | 9 | 3 | 7 | 5.5 | 1430 | 170 |
| Oct-15 | 0.097 | 7.3 |  | 0.18 | ND | ND | 6 | 5 | 170 | 580 |
| Nov-15 | 0.103 | 7.7 | 7.7 | 0.2 | ND | ND | 15 | 9.5 | 36 | 73 |
| Dec-15 | 0.102 | 7.7 | 7.7 | 0.15 | ND | ND | 5 | 4.5 | 218 | 520 |
| Jan-16 | 0.104 | 7.9 | 8.3 | 0.2 | ND | ND | 5 | 4.5 | 32 | 60 |
| Feb-16 | 0.086 | 7.5 | 7.8 | 0.2 | 6 | 3 | 6 | 6 | 87 | 150 |
| Mar-16 | 0.077 | 7.8 | 7.9 | 0.17 | 3 | 6 | 6 | 6 | 160 | 121 |
| Apr-16 | 0.072 | 7.9 | 7.9 | 0.2 | ND | ND | 4 | 2 | ND | 130 |
| May-16 | 0.082 | 7.9 | 8.1 | 0.2 | ND | ND | ND | ND | ND | ND |
| Jun-16 | 0.092 | 7.8 | 8.0 | 0.2 | ND | ND | ND | ND | ND | ND |
| Jul-16 | 0.3 | 7.8 | 7.9 |  | ND | ND | ND | ND | 4 | 4 |
| Aug-16 | 0.3 |  |  |  | ND | ND | ND | ND | 1 | 1 |
| Sep-16 | 0.3 | 7.8 | 8.9 | 0.19 | ND | ND | ND | ND | ND | ND |
| Oct-16 | 0.08 | 8.2 | 7.9 |  | ND | ND | ND | ND | ND | ND |
| Nov-16 | 0.1 | 7.8 | 8.3 | 0.2 | ND | ND | 5 | 5 | ND | ND |
| Dec-16 | 0.3 | 8.0 | 8.3 | 0.2 | ND | ND | ND | ND | 1 | 3 |
| Jan-17 | 0.3 | 7.9 | 8.1 | 0.2 | ND | ND | ND | ND | ND | ND |
| Feb-17 | 0.083 | 8.2 | 8.4 | 0.17 | ND | ND | ND | ND | 1 | 2 |
| Mar-17 | 0.068 | 7.7 | 8.2 | 0.18 | ND | ND | ND | ND | 1 | 1 |
| Apr-17 | 0.077 | 7.6 | 8.0 | 0.19 | 6.7 | 9 | 4 | 4 | 1 | 1 |
| May-17 | 0.086 | 7.6 | 8.2 | 0.19 | 6.7 | 9 | 4 | 4 | 1 | 1 |
| Jun-17 | 0.114 | 7.8 | 8.1 | 0.19 | 5.9 | 7 | 4 | 4 | 1 | 1 |
| Jul-17 | 0.1 | 7.7 | 8.1 | 0.19 | ND | ND | ND | ND | 1 | 2 |
| Aug-17 | 0.101 | 8.0 | 8.1 | 0.14 | ND | ND | ND | ND | 6 | 6 |
| Sep-17 | 0.081 | 7.8 | 8.1 | 0.15 | ND | ND | ND | ND | 2 | 6 |
| Oct-17 | 0.089 | 7.8 | 8.0 | 0.15 | ND | ND | ND | ND | 1 | 1 |
| Nov-17 | 0.081 | 7.9 | 8.0 | 0.16 | ND | ND | ND | ND | ND | ND |
| Dec-17 | 0.087 | 7.6 | 7.7 | 0.12 | ND | ND | ND | ND | ND | ND |
| Jan-18 | 0.058 | 8.0 | 8.1 | 0.15 | ND | ND | ND | ND | 1 | 1 |
| Feb-18 | 0.056 | 7.8 | 7.9 | 0.11 | ND | ND | ND | ND | 2 | 2 |
| Mar-18 | 0.061 | 8.1 | 8.3 | 0.14 | ND | ND | ND | ND | ND | ND |
| Apr-18 | 0.06 | 8.0 | 8.0 | 0.12 | ND | ND | ND | ND | ND | ND |
| May-18 | 0.053 | 7.5 | 7.7 | 0.17 | ND | ND | ND | ND | ND | ND |
| Jun-18 | 0.048 | 7.6 | 7.7 | 0.17 | ND | ND | ND | ND | 1 | 2 |
| Jul-18 | 0.054 | 7.4 | 7.4 | 0.13 | ND | ND | ND | ND | 1 | 2 |
| Aug-18 | 0.056 | 7.5 | 7.9 | 0.16 | ND | ND | ND | ND | 1 | 5 |
| Sep-18 | 0.059 | 7.3 | 7.6 | 0.09 | ND | ND | ND | ND | 2 | 3 |

|  |
| --- |
| TBPEL Monitoring Results |
|  | Effluent | Influent |
|  | N | NO2+ NO3 | Ortho P | TKN | Tot P | TKN | Tot P |
| Jul-15 | 20.2 | ND | 5.6 | ND | 5.5 | 29 | 4.8 |
| Aug-15 | ND | 17.3 | 5.1 | ND | 5.2 | 36 | 6.8 |
| Sep-15 | ND | 6.3 | 4.1 | 2 | 4.1 | 49 | 6.9 |
| Oct-15 | ND | 8.6 | 2.5 | ND | 2.4 | 3.3 | 7.3 |
| Nov-15 | ND | ND | 2.9 | ND | 3.2 | 38 | 3.2 |
| Dec-15 | 7.8 | ND | 3.7 | ND | 4 | 49 | 7.3 |
| Jan-16 | ND | ND | ND | ND | 2.9 | 52 | 6.8 |
| Feb-16 | ND | ND | 2.6 | ND | 2.8 | 52 | 6.6 |
| Mar-16 | 6.2 | ND | 2.4 | ND | 2.5 | 46 | 7.8 |
| Apr-16 | 10 | ND | 1.9 | ND | 1.9 | 64 | 1.9 |
| May-16 | ND | ND | 2.3 | ND | 2.4 | 55 | 6.9 |
| Jun-16 | ND | ND | 1.5 | ND | 1.6 | 37 | 5.1 |
| Jul-16 | ND | 8.4 | 3.5 | ND | 3.9 | 52 | 7.1 |
| Aug-16 | 0.4 | 7.1 | 4.4 | ND | 3.5 | 27 | 5.1 |
| Sep-16 | 1 | 9.3 | 3.1 | ND | 3.2 | 29 | 5.9 |
| Oct-16 | ND | 6 | 2.6 | ND | 2.6 | 38.6 | 2.9 |
| Nov-16 | ND | 7.3 | 3.4 | ND | 3.6 | 27.4 | 5.3 |
| Dec-16 | ND | 7.2 | 2.4 | ND | 2.5 | 50.2 | 6 |
| Jan-17 | ND | 7.7 | 2.9 | 1 | 3 | 48.3 | 6.6 |
| Feb-17 | ND | 9.3 | 2.2 | ND | 3 | 46.2 | 6.2 |
| Mar-17 | ND | 11.7 | 2.9 | ND | 3 | 33.1 | 5.8 |
| Apr-17 | ND | 9.5 | 2.3 | ND | 2.5 | 44.7 | 6.5 |
| May-17 | ND | 8.2 | 2.4 | ND | 2.4 | 31.5 | 4.9 |
| Jun-17 | ND | 10.2 | 1.7 | ND | 1.8 | 33.5 | 4.8 |
| Jul-17 | ND | 13.6 | 2.5 | ND | 2.7 | 35.2 | 5.6 |
| Aug-17 | ND | 9.1 | 2 | ND | 2.1 | 38.6 | 6.8 |
| Sep-17 | ND | 7.4 | 1.2 | ND | 1.3 | ND | 5.6 |
| Oct-17 | ND | 7.5 | 2.7 | ND | 2.8 | 43.6 | 7.1 |
| Nov-17 | ND | 10.2 | 3.6 | ND | 3.7 | 38.2 | 6.6 |
| Dec-17 | ND | 5.2 | 2.7 | ND | 2.6 | 51.6 | 8.5 |

**ATTACHMENT 3**

*Wasteload Analysis*

This Page Intentionally Left Blank

**ATTACHMENT 4**

*Reasonable Potential Analysis*

This Page Intentionally Left Blank

**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[[12]](#footnote-12). 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.

Fairview is a minor discharger with an average flow less than 0.2 MGD and no significant industrial users contributing to the facility. As a result they have not been required to monitor for metals, priority pollutants or other toxics in accordance with the UPDES Pretreatment Guidance for Sampling of POTWs. Water quality will continue to follow this path with Fairview and those parameters will again not be required to monitor for by the permit. If the circumstances change, the monitoring may be added at any time in the future without public notice.

The RP model was run on ammonia using the most recent data back through 2015. This resulted in 21 data points and that there is a Reasonable Potential for an acute and chronic limit for ammonia when basing the RP on the most stringent acute and chronic limits from the WLA. There is not enough data to evaluate the RP on a seasonal basis. This result indicates that the inclusion of an effluent limit for ammonia is required at this time. The seasonal values will be applied and an RP will be conducted again during the next renewal. If the seasonal limits are no longer required, they may be removed

 (Outcome A from Reasonable Potential Guide)

The ammonia RP Outputs Table are included in this attachment.

RP input/output summary

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| RP Procedure Output | Outfall Number: | 001 | Data Units | mg/L |
| Parameter | Ammonia-N |  |  |  |
| Distribution | Lognormal |  |  |  |
| Reporting Limit | 0.01 |  |  |  |
| Significant Figures | 2 |  |  |  |
| Maximum Reported Effluent Conc. | 10 |  |  |  |
| Coefficient of Variation (CV) | 6.6 |  |  |  |
| Acute Criterion | 14 |  |  |  |
| Chronic Criterion | 10 |  |  |  |
| Confidence Interval | 95 | 99 |  |  |  |   |
| Projected Maximum Effluent Conc. (MEC) | 20 | 120 |  |  |  |   |
| RP Multiplier | 2.0 | 12 |  |  |  |   |
| RP for Acute? | YES | YES |  |  |  |   |
| RP for Chronic? | YES | YES |  |  |  |   |
| Outcome | A |  |  |    |

**ATTACHMENT 5**

**Fairview Site Flow and Location**

This Page Intentionally Left Blank

1. See Definitions, Part VIII, for definition of terms. [↑](#footnote-ref-1)
2. 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. [↑](#footnote-ref-2)
3. If the rate of discharge is controlled, the rate and duration of discharge shall be reported. [↑](#footnote-ref-3)
4. 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 [↑](#footnote-ref-4)
5. Due to the low flow conditions Fairview has had a history of difficulty maintaining the TRC below limits required. The samples are taken inside the facility but the effluent flows through a channel and a small pond, then out through a pipe before discharging to the San Pitch River. This allows Fairview to confirm that the effluent is not exceeding the WQBEL before it enters the river.. [↑](#footnote-ref-5)
6. Oil & Grease sampled when sheen is present or visible. If no sheen is present or visible, report NA. [↑](#footnote-ref-6)
7. These reflect changes required with the adoption of UCA R317-1-3.3, Technology-based Phosphorus Effluent Limits rule. [↑](#footnote-ref-7)
8. CPLR -- Cumulative Pollutant Loading Rate [↑](#footnote-ref-8)
9. APLR – Annual Pollutant Loading Rate [↑](#footnote-ref-9)
10. MPN – Most Probable Number [↑](#footnote-ref-10)
11. CFU – Colony Forming Units [↑](#footnote-ref-11)
12. See Reasonable Potential Analysis Guidance for definitions of terms [↑](#footnote-ref-12)