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FACT SHEET AND STATEMENT OF BASIS
NORTH DAVIS SEWER DISTRICT
RENEWAL PERMIT: DISCHARGE, BIOSOLIDS & STORM WATER
UPDES PERMIT NUMBER: UT0021741
UPDES BIOSOLIDS PERMIT NUMBER: UTL-021741
UPDES MULTI-SECTOR STORM WATER GENERAL PERMIT NUMBER: UTR000000
MAJOR MUNICIPAL

FACILITY CONTACTS

Person Name:	Kevin R. Cowan	Person Name:	Kenneth W. Burgener
Position:	District Manager	Position:	Laboratory Director
Person Name:	Myron K. Bachman	Person Name:	Alan B. Williams
Position:	Plant Superintendent	Position:	Biosolids Specialist
Person Name:	Jeff E. Macfarlane		
Position:	Pretreatment Coordinator		

Facility Name:	North Davis Sewer District
Mailing Address:	4252 W. 2200 S. Syracuse, Utah 84075
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Actual Address:	

DESCRIPTION OF FACILITY

The North Davis Sewer District Wastewater Treatment Plant (North Davis) is located at 4252 W. 2200 S., Syracuse, Utah. The facility is located approximately ¼ mile south of the Antelope Island Road and near the old shoreline of the Great Salt Lake. The District serves the municipalities of Clearfield, Clinton, Layton, Roy, Sunset, Syracuse and West Point, portions of unincorporated Davis and Weber Counties, Hill Air Force Base and the Freeport Center. The service area includes a total population of approximately 215,000. The facility finished upgrades and expansions in 2007 and 2016. The process and internal flows were changed from the previous permits. The facility has a design flow of 34 MGD with a peak of 65 MGD, and a storm event peak of 102 MGD.

The North Davis facility is a trickling filter/solids contact process. Sewage enters the facility through a flume at the influent of the facility where the flow is measured and recorded by a flow meter. It then passes through mechanical step screens which remove rags, trash, and large debris. The screenings are then conveyed to a screenings washer by vacuum system where they are washed, compacted and disposed of at the landfill.

Wastewater continues to flow from the step screens to the aerated grit chambers where the flow velocity is reduced and grit sedimentation is enhanced with a rolling action from the aeration. The settled grit is removed from hoppers at the bottom of the aerated grit chambers with pneumatic air lift pumps and transferred to grit classifier basins. There the grit is washed and moved to a dumpster for disposal at the landfill.

Next, the wastewater flows to the influent pump station where it is pumped to the primary clarifiers at the east end of the facility. The four primary clarifiers are made up of two 135 ft. diameter and two 150 ft. diameter clarifiers. From there it flows to the biotower pump station and is circulated through the biotowers. There are two biotowers that are 120 ft. diameter. In the event of biotower failure or repair, the old trickling filters have been left in place and can be placed in service if needed.

The flow then goes to the solids contact basins. There are eight basins, each rated at 370,000 gallon capacity. The use of the basins is controlled by the hydraulic flow and detention time desired. Effluent from the basins is directed to the secondary clarifiers. There are four 160 ft. diameter secondary clarifiers. From the clarifiers the wastewater flows to the chlorine contact chambers. There are four chambers with an approximate volume each of 330,000 gallons.

The treated and disinfected wastewater flows from the chlorine contact basin to an outfall ditch, which is an unnamed ditch that flows to the Great Salt Lake. Effluent sampling is conducted at this point. The North Davis facility has an alternative discharge point that was added during a 1985 expansion. It was created when the Great Salt Lake was at record levels, and a dike was constructed around the plant to prevent the Great Salt Lake from swamping the facility. This point is designed to allow the facility to pump effluent to the lake when the level rises and the effluent can no longer gravity flow to the lake. In these cases, the effluent will be pumped from the chlorine contact chambers to the outfall structure. It can also be used if the chlorine contact chambers are emptied for cleaning. In the event it is used, the sampling will be conducted at the point of discharge. The effluent discharge pumping system is only installed on the north chlorine contact basin.

In 1958 when the original facility was built, it included a structure for total treatment plant bypass. The structure is still in place and is being maintained for emergency use, such as in the event of receiving flammable or explosive material in the influent. The bypass structure would only be used in the event of an emergency which threatened the health or safety of District personnel, the public, or would be detrimental to the facility or structures. The permit does not authorize a discharge through this bypass structure.

As part of the expansion modifications the majority of storm generated drainage flows at the facility are directed to the facility's headworks.

SUMMARY OF CHANGES FROM PREVIOUS PERMIT

There have been no major changes at the facility since the pervious permit was issued.

The monitoring frequencies for many parameters have changed to be more consistent with the Division of Water Quality's (DWQ) "Monitoring, Recording, and Reporting Guidelines". The guideline indicates that for a facility with a daily effluent flow at the level of North Davis, they should be monitoring daily for the majority of parameters. Due to the compliance history of North Davis, the monitoring frequencies have only been increased from three to five times a week in the renewal permit. Those changes are reflected in the Permit and FSSOB.

North Davis has historically monitored the effluent at a frequency greater than the minimum required, and they have expressed concerns with being able to accomplish the minimum monitoring frequencies of 5 times weekly on a year round basis. In the past, they have experienced issues with sample collection during periods of extremely cold temperatures, and have had to discard samples due to freezing conditions. To account for this, and to better define for the public and facility what constitutes noncompliance with the permit, the renewal permit includes a 95% compliance rate for monitoring at a minimum frequency over a year. Specifically, on an annual basis, the facility should be able to complete 95% of the minimum monitoring

events required. DWQ will not consider it a violation of the permit if a sample is attempted, but must be rejected prior to analysis.

Water Quality adopted UAC R317-1-3.3, Technology-Based Phosphorus Effluent Limit (TBPEL) Rule in 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.

Water Quality has changed the way it evaluates discharges into the Great Salt Lake. Currently, discharges to the Great Salt Lake are evaluated according to the Interim UPDES Permitting Strategy which can be located online at this address, http://www.deq.utah.gov/locations/G/greatsaltlake/gslwaterquality/index.htm There was no WLA generated for the previous permit renewal. The previous renewal had a document declaring the there was a finding of no significant impact for the discharge. The Division no longer develops those for discharge permits. Water Quality now preforms a Level I Antidegradation Review for GSL discharges.

As a result of the antidegradation review, effluent free cyanide, ammonia, temperature, and chronic WET monitoring have been added. The minimum monitoring frequency for free cyanide will be the same as the pretreatment metals monitoring is performed, quarterly.

The ammonia monitoring required by the anti-degradation review is separate from the monitoring related to UAC R317-1-3.3, TBPEL Rule. The rule requires composite sampling, while the sampling for the GSL Antidegradation Review requires that it be done according to EPA approved compliance monitoring methods which specifies a grab sample.

North Davis is already monitoring whole effluent toxicity (WET) for Acute Toxicity through Acute WET testing. This permit requires that North Davis also monitor toxicity with chronic WET testing. This is a new monitoring requirement, as opposed to an effluent limit, because, based on the predicted effluent concentrations of the effluent, the effluent does not have reasonable potential for toxicity [UAC R317-8-4.2(4)(a)2.]. WET testing is one of the tools the Division uses to assess whether WET limits are needed to ensure compliance with the Narrative Standards (UAC R317-2-7.2). Based on the WET test results, the Division may determine that additional WET evaluations or WET limits are needed to ensure that the discharge does not have the potential to cause or contribute to a violation of the Narrative Standards.

Because the dilution of North Davis's effluent in the receiving waters is less than 20:1, North Davis will be required to complete 10 chronic WET tests to determine if chronic toxicity is occurring. This is being done as

a screening tool to identify indicators that may require additional evaluation in accordance with the Interim Methods for Evaluating Use Support for Great Salt Lake, Utah Pollution Discharge Elimination System Permits (October 2014). The tests will be required to be completed quarterly. If the results consistently show no chronic toxicity, then additional chronic toxicity testing will not be required beyond the 10 tests.

DISCHARGE

DESCRIPTION OF DISCHARGE

The North Davis has been reporting self-monitoring results on Discharge Monitoring Reports on a monthly basis. A summary of the last 3 years of data is attached and there were no violations.

Outfall	Description of Discharge Point
001	Located at latitude 40°05'04" and longitude 112°06'30". The discharge is through a 54-inch diameter gravity flow concrete pipe leading from the chlorine contact basin to an unnamed irrigation return drainage ditch and thence to the Great Salt Lake.

RECEIVING WATERS AND STREAM CLASSIFICATION

The final discharge is to the west to an unnamed irrigation return drainage ditch (Class 2B, 3E) to Farmington Bay (Class 5D, 5E) and ultimately ends up in the Great Salt Lake 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 3E — Severely habitat-limited waters. Narrative standards will be applied to protect these waters for aquatic wildlife.

Class 5D — Farmington Bay
Geographical Boundary -- All open waters at or below approximately 4,208-foot elevation east of Antelope Island and south of the Antelope Island Causeway, excluding salt evaporation ponds.
Beneficial Uses -- Protected for infrequent primary and secondary contact recreation, waterfowl, shore birds and other water-oriented wildlife including their necessary food chain.

Class 5E — Transitional Waters along the Shoreline of the Great Salt Lake Geographical Boundary –
Geographical Boundary -- All waters below approximately 4,208-foot elevation to the current lake elevation of the open water of the Great Salt Lake receiving their source water from naturally occurring springs and streams, impounded wetlands, or facilities requiring a UPDES permit. The geographical areas of these transitional waters change corresponding to the fluctuation of open water elevation.
Beneficial Uses -- Protected for infrequent primary and secondary contact recreation, waterfowl, shore birds and other water-oriented wildlife including their necessary food chain.

BASIS FOR EFFLUENT LIMITATIONS

Limitations on total suspended solids (TSS), biochemical oxygen demand (BOD5), *E. coli*, pH and percent

removal for BOD5 and TSS are based on current Utah Secondary Treatment Standards, UAC R317-1-3.2. The oil and grease is based on best professional judgment (BPJ). Attached is the Anti-degradation Review Level I and II and Wasteload Analysis (ADR)for this discharge into Farmington Bay. It has been determined that this discharge will not cause a violation of water quality standards.. 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 review of the ADR indicates that further RP analysis is not required.

The permit limitations are:

Parameter	Effluent Limitations *a			
	Average Monthly	Average Weekly	Minimum Daily	Maximum Daily
BOD_5, mg/L BOD_5 Min. % Removal	25 85	35 --	-- --	-- --
TSS, mg/L TSS Min. % Removal	25 85	35 --	-- --	-- --
TRC, mg/L	--	--	--	2.5
E. coli , No./100mL	126	157	--	--
WET, Acute Biomonitoring	--	--	--	LC_{50} > 100% Effluent
Oil & Grease, mg/L	--	--	--	10.0
pH, Standard Units	--	--	6.5	9

SELF-MONITORING AND REPORTING REQUIREMENTS

The following self-monitoring requirements have been modified since the previous permit. The modifications include increasing multiple parameters to comply with water quality guidelines, inclusion of monitoring required under UAC R317-1-3.3 (TBPEL Rule) that went into effect July 1, 2015, and monitoring to assist in future evaluations for the discharge to Farmington Bay and the Great Salt Lake.

The permit will require reports to be submitted monthly, quarterly and annually (as applicable), on Discharge Monitoring Report (DMR) forms or by NetDMR due 28 days after the end of the monitoring period. Lab sheets for biomonitoring must be included with the biomonitoring DMR. Lab sheets for metals and toxic organics must be included with the corresponding DMRs submittals.

Self-Monitoring and Reporting Requirements *a			
Parameter	Frequency *q	Sample Type	Units
Total Flow *b, *c	Continuous	Recorder	MGD
BOD_5, Influent *d Effluent	5 x Weekly 5 x Weekly	Composite Composite	mg/L mg/L
TSS, Influent *d Effluent	5 x Weekly 5 x Weekly	Composite Composite	mg/L mg/L
E. coli	5 x Weekly	Grab	No./100mL
TRC,	5 x Weekly	Grab	mg/L
pH	5 x Weekly	Grab	SU
Temperature *g	Weekly	Grab	°C
Ammonia *g	Weekly	Grab	mg/L
WET – Acute Biomonitoring	Quarterly	Composite	Pass/Fail
Chronic Biomonitoring *h (Screening Only)	Quarterly	Composite	$TU_c \leq 1.6$ *h
Oil & Grease *f	When Sheen Observed	Grab	mg/L
Total Ammonia (as N) *k	Monthly	Composite	mg/L
Orthophosphate, (as P) *k Effluent	Monthly	Composite	mg/L
Phosphorus, Total *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, NO3 *k~~	~~Monthly~~	~~Composite~~	~~mg/L~~
Nitrite, NO2 *k	Monthly	Composite	mg/L
Total Metals, Influent *d Effluent	4 x Yearly *n 4 x Yearly *n	Composite Composite	mg/L mg/L
Organic Toxics	Yearly *n, *o	Composite/Grab	mg/L
Free Cyanide	4 x Yearly *p	Composite	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.

*g The ammonia and temperature monitoring are new requirements for the upcoming permit cycle to support future comparisons and reasonable potential evaluations. Ammonia should be sampled following EPA approved compliance methods at a minimum frequency of weekly and reported separately from samples taken in compliance with UCA R317-1-3.3 (TBPEL Rule).

*h North Davis will be required to complete 10 chronic WET tests to determine if chronic toxicity is occurring. If the results show no toxicity, then additional chronic testing will not be required beyond the 10 tests. TU_c is calculated by dividing the receiving water effluent concentration determined in accordance with R317-2-5 by the chronic test IC_{25}. The TU_c is an indicator and an exceedance is not used for determining compliance.

*k These reflect changes required with the adoption of UCA R317-1-3.3, Technology-based Phosphorus Effluent Limits rule. The rule requires 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. This collection method is only for the monthly samples being collected in compliance with the rule.

*n The sampling for metals and organic toxics is based on the *Guidance for Determining Monitoring Frequencies for the Pretreatment Program,* which was developed by Region VIII and is dated October 15, 1998. The guidance indicates that sampling for metals should be four (4) times a year currently this frequency seems adequate. The guidance indicated that sampling for organic toxics should be twice a year. Due to samples not indicating any issues with meeting water quality standards the sampling for organic toxics will continue at the current frequency of once a year. If concerns regarding organic toxics occur, then the sampling will be increased to resolve any concerns.

*o The toxic pollutants are listed in *40 CFR 122 Appendix D Table II (Organic Toxic Pollutants)*. The samples for the Organic Toxic Pollutant test should be collected as specified in the method for each portion of the test.

*p Free cyanide is a subset of total cyanide and in most situations, total cyanide will overestimate the free cyanide concentrations. Monitoring for free cyanide is a new requirement for the upcoming permit cycle to support future comparisons and reasonable potential evaluations. It will be sampled at the same frequency as other metals are sampled.

*q To demonstrate compliance with this permit, North Davis will complete at least 95% of the attempted required monitoring events required during the year.

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

Primary sedimentation solids and thickened waste secondary sludge are anaerobically digested. Digested solids are mechanically dewatered with belt filter presses and then stored in drying beds. Biosolids in the

drying beds are transported to the drying pad on a regular basis to minimize odor potential at the plant site. The solids may be windrowed and turned to achieve additional drying on the concrete storage pad. Solids on the storage pad continue to dry and are exposed to sun and environmental elements to complete the Class B biosolids stabilization process.

The Permittee submitted their 2015 annual biosolids report on February 17, 2016. The report states the Permittee produced 2,460 dry metric tons (DMT) of solids.

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

In 2015, the North Davis disposed of 2,460 DMT of biosolids, therefore they need to sample at least six times a 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).*
No biosolids were landfilled in 2015

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 Table 1 and the heavy metals loading rates in Table 2; or

The maximum heavy metals in Table 1 and the monthly heavy metals concentrations in 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, (mg/kg)	CPLR[1], (mg/ha)	Pollutant Conc. Limits, (mg/kg)	APLR[2], (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;

[1] CPLR -- Cumulative Pollutant Loading Rate
[2] APLR – Annual Pollutant Loading Rate

Pathogen Control Class	
Class A	Class B
B Salmonella species –less than three (3) MPN[3] per four (4) grams total solids (or less than 1,000 fecal coliforms per gram total solids)	Fecal Coliforms –less than 2,000,000 colony forming units (CFU) per gram total solids
Enteric viruses –less than one (1) MPN (or plaque forming unit) per four (4) grams total solids	
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. North Davis no longer produces Class A biosolids.

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). The PSRP may be accomplished through composting:

1. Under *40 CFR 503.32 (b)(2)*, North Davis may test the biosolids and must meet a microbiological limit of less than 2,000,000 MPN of fecal coliform per gram for the biosolids to be considered Class B biosolids with respect to pathogens.

2. Under *40 CFR 503.32 (b)(3)* The PSRP may be accomplished through anaerobic digesters that have a minimum retention time of 15 days at 95° F (35° C) or 60 days at 68° F (20°C).

Vector Attraction Reduction (VAR)

If the biosolids are land applied, North Davis will be required to meet VAR through the use of a method of listed under *40 CFR 503.33.* North Davis intends to meet the vector attraction reduction requirements through one of the methods listed below.

1. Under *40 CFR 503.33(b)(1),* the solids need to be treated through anaerobic digestion for at least 15 days at a temperature of a least 35° C (95° F) with a 38% reduction of volatile solids.

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

[3] MPN –Most Probable Number

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

North Davis 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

METALS MONITORING DATA

North Davis was required to sample for metals at least six times in 2015. North Davis sampled the Class B biosolids six times. All biosolids land applied in 2015 met *Table 3* of *40 CFR 503.13,* therefore the Permittee biosolids qualify as EQ with regards to metals. The monitoring data is below.

North Davis Metals Monitoring Data 2015

North Davis Metals Monitoring Data, 2015 (Land Application)			
Parameter	Table 3, mg/kg (Exceptional Quality)	Average, mg/kg	Maximum, mg/kg
Arsenic	41.0	21.6	4.84
Cadmium	39.0	3.57	4.84
Copper	1,500.0	869	1050
Lead	300.0	16.5	21.6
Mercury	17.0	2.08	8.92
Molybdenum	75.0	8.13	9.86
Nickel	400.0	22.6	28
Selenium	36.0	11.86	21.6
Zinc	2,800.0	689	794

PATHOGEN MONITORING DATA (Anaerobic Cake)

North Davis was required to monitor the biosolids 42 times (six events of seven samples each) for pathogens in 2015. They sampled 42 times.. The monitoring data is below. All biosolids land applied in 2015 met the Class B pathogen standards through anaerobic digestion.

North Davis Fecal Coliform Monitoring Results for 2015

Geometric Mean of 42 Samples, Most Probable Number Per Gram (2015)	Maximum of 42 Samples, Most Probable Number Per Gram (2015)
9,414	18,400

STORM WATER

STORMWATER REQUIREMENTS

Storm water provisions are included in this combined UPDES permit.

The storm water requirements are based on the UPDES Multi-Sector General Permit for Storm Water Discharges for Industrial Activity, General Permit No. UTR000000 (MSGP). All sections of the MSGP that pertain to discharges from wastewater treatment plants have been included and sections which are redundant or do not pertain have been deleted.

The permit requires the preparation and implementation of a storm water pollution prevention plan for all areas within the confines of the plant. Elements of this plan are required to include:

1. The development of a pollution prevention team:
2. Development of drainage maps and materials stockpiles:
3. An inventory of exposed materials:
4. Spill reporting and response procedures:
5. A preventative maintenance program:
6. Employee training:
7. Certification that storm water discharges are not mixed with non-storm water discharges:
8. Compliance site evaluations and potential pollutant source identification, and:
9. Visual examinations of storm water discharges.

North Davis is currently covered under the UPDES Multi Sector General Permit for Industrial Activities.

PRETREATMENT REQUIREMENTS

The pretreatment requirements remain the same as in the current permit with the permittee administering an approved pretreatment program. Any changes to the program must be submitted for review to the Division of Water Quality. If the change is deemed a substantial change, then the Division of Water Quality must approve the change prior to the implementation of the change. Authority to require a pretreatment program is provided for in 19-5-108 UCA, 1953 ann. and UAC R317-8-8.

The permittee will be required to perform an evaluation of the need to revise or develop technically based local limits to implement the general and specific prohibition of 40 CFR 403.5 (a) and Part 403.5(b). This evaluation may indicate that present local limits are sufficiently protective, or that they must be revised. As part of this evaluation, the permit requires quarterly influent and effluent monitoring for metals and organic toxics listed in R317-8-7.5 and sludge monitoring for potential pollutants listed in 40 CFR 503.

BIOMONITORING REQUIREMENTS

A nationwide effort to control toxic discharges where effluent toxicity is an existing or potential concern is regulated in accordance with the State of Utah Permitting and Enforcement Guidance Document for WholeEffluent Toxicity Control (biomonitoring). 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.

Since the permittee is a major municipal discharger, the renewal permit will again require whole effluent toxicity (WET) testing. Acute quarterly biomonitoring will again be required as described in the permit with no significant changes from the existing permit provisions. Acute toxicity occurs when 50 percent or more mortality is observed for either species at any effluent concentration during the WET testing. Therefore, the permittee is required to "Pass" the Lethal Concentration criteria (LC_{50}) for each WET monitoring period.

As stated earlier, monitoring for Chronic WET will be required this permit cycle. Chronic WET tests are considered an indicator for Class 5 waters (Great Salt Lake) because of uncertainties regarding the representativeness of the standard test species for Great Salt Lake. The results of the acute duration portion of a chronic test are implemented as specified in Condition C.3. As an indicator, the chronic test results can demonstrate compliance with portions of the Narrative Standards (R317-2-7.2). However, the chronic WET test results alone do not demonstrate noncompliance with the Narrative Standards. As indicators, the chronic WET test results alone are not used for determining reasonable potential for toxicity or noncompliance with the permit.

The permit also contains standard requirements for accelerated testing upon failure of a WET test, and a PTI (Preliminary Toxicity Investigation) and TRE (Toxicity Reduction Evaluation) as necessary. The permit will also contain the Toxicity Limitation Re-opener provision that allows for modification of the permit at any time to include additional WET testing requirements, limits and/or alternative test methods should additional information indicate the presence of toxicity in future discharges.

PERMIT DURATION

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

Daniel Griffin, Discharge, Biosolids
Jennifer Robinson, Pretreatment
Michael George, Storm Water
Chris Bittner, Reasonable Potential Analysis
Chris Bittner, Level I and II Anti-degradation Reviews
Utah Division of Water Quality, (801) 536-4300

PUBLIC NOTICE

Began:
Ended:

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 The Salt Lake Tribune and Deseret Morning News.

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.

ATTACHMENT 1

Effluent Monitoring Data

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Effluent Monitoring Data.

	Flow		pH		O & G	TRC	*E. coli*		BOD5		TSS	
Month	Ave	Max	Min	Max	Max	Max	Acute	Chronic	Ave	Max	Ave	Max
Jan-13	18.8	20.2	7.5	7.7	1.7	1.2	10	6	5	6	7	8
Feb-13	21.3	22.9	7.6	7.7	1.7	1.1	13	8	7	9	7	7
Mar-13	24.3	28.6	7.5	7.7	1.7	1.1	11	9	17	21	7	9
Apr-13	20.2	21.2	7.5	7.7	1.7	1.2	20	12	19	21	7	8
May-13	21.4	25.5	7.4	7.6	1.7	1.3	9	7	18	21	10	11
Jun-13	20.5	22.1	7.5	7.7	1.4	1	12	7	18	21	11	14
Jul-13	20.2	22.3	7.4	7.7	1.4	1.3	10	8	10	11	14	16
Aug-13	19.6	20.8	7.5	7.6	1.4	1.2	13	7	8	10	8	9
Sep-13	20	21.8	7.6	7.8	1.4	1.1	78	15	11	12	8	9
Oct-13	17.9	19	7.5	7.7	1.7	0.9	11	8	9	11	8	8
Nov-13	17.2	18.1	7.5	7.7	1.7	0.9	10	8	9	10	8	10
Dec-13	17.2	20.4	7.2	7.6	1.4	1.2	10	12	9	10	10	18
Jan-14	17.5	19.9	7.3	7.5	1.4	0.8	29	6	7	8	8	9
Feb-14	20.3	22.6	7.4	7.6	1.4	1	43	19	8	10	8	8
Mar-14	20.8	27.4	7.4	7.7	1.7	1	30	10	7	8	9	10
Apr-14	19.1	21.2	7.4	7.6	1.4	1.5	8	6	8	9	9	10
May-14	20.2	22.7	7.4	7.5	1.4	1.3	9	6	7	9	8	10
Jun-14	20.6	23	7.5	7.6	1.4	1	16	8	8	10	8	9
Jul-14	20.5	22.3	7.5	7.8	1.4	1.5	10	7	9	10	12	13
Aug-14	21	21.9	7.6	7.7	1.2	1.3	17	14	8	9	9	10
Sep-14	20.2	23.2	7.5	7.7	1.4	1.1	12	8	7	8	8	13
Oct-14	18.2	20.9	7.5	7.6	1.4	1.1	7	5	6	8	9	10
Nov-14	16.6	17.7	7.4	7.6	1.4	1.7	8	6	7	9	14	23
Dec-14	16.9	19.3	7.4	8.9	1.4	1.2	34	8	6	10	11	23
Jan-15	18.1	19.8	7.5	7.6	1.4	0.9	10	6	7	8	10	11
Feb-15	17.8	18.7	7.3	7.5	1.4	1	7	6	5	6	9	10
Mar-15	17.6	18.6	7.3	7.5	1.4	1.3	5	5	5	6	7	8
Apr-15	18.1	22.3	7.2	7.6	1.4	1	7	6	7	8	11	11
May-15	22.5	31.9	7.5	7.6	2	1.1	10	6	7	9	13	16
Jun-15	20.2	22.5	7.5	7.6	1.6	1.3	8	6	6	6	9	10
Jul-15	19.7	21.8	7.5	7.7	1.4	1.5	12	9	5	6	11	11
Aug-15	20.7	22.6	7.5	7.7	1.4	1.1	9	5	5	6	7	13
Sep-15	20.1	23.5	7.6	7.7	1.4	1.1	7	5	5	6	8	10
Oct-15	18.1	20.3	7.5	7.6	1.4	1	12	8	5	6	11	13
Nov-15	16.9	18.3	7.1	7.6	1.4	1.3	11	8	4	6	6	7
Dec-15	18.1	21.6	7.4	7.6	2.63	0.9	8	5	7	8	8	8

WET Results

Month	WET Test	Pass / Fail
Mar-13	48Hr Acute Ceriodaphnia	Pass
Mar-13	96Hr Acute Pimephales Promelas	NA
Jun-13	48Hr Acute Ceriodaphnia	NA
Jun-13	96Hr Acute Pimephales Promelas	Pass
Sep-13	48Hr Acute Ceriodaphnia	Pass
Sep-13	96Hr Acute Pimephales Promelas	NA
Dec-13	48Hr Acute Ceriodaphnia	NA
Dec-13	96Hr Acute Pimephales Promelas	Pass
Mar-14	48Hr Acute Ceriodaphnia	Pass
Mar-14	96Hr Acute Pimephales Promelas	NA
Jun-14	48Hr Acute Ceriodaphnia	Pass
Jun-14	96Hr Acute Pimephales Promelas	NA
Sep-14	48Hr Acute Ceriodaphnia	Pass
Sep-14	96Hr Acute Pimephales Promelas	NA
Dec-14	48Hr Acute Ceriodaphnia	NA
Dec-14	96Hr Acute Pimephales Promelas	Pass
Mar-15	48Hr Acute Ceriodaphnia	Pass
Mar-15	96Hr Acute Pimephales Promelas	NA
Jun-15	48Hr Acute Ceriodaphnia	NA
Jun-15	96Hr Acute Pimephales Promelas	Pass
Sep-15	48Hr Acute Ceriodaphnia	Pass
Sep-15	96Hr Acute Pimephales Promelas	NA
Dec-15	48Hr Acute Ceriodaphnia	NA
Dec-15	96Hr Acute Pimephales Promelas	Pass

Effluent												
Metal	Cyanide	Arsenic	Cadmium	Chromium	Copper	Lead	Nickel	Silver	Zinc	Molybdenum	Selenium	Mercury
Metals, mg/L	0.0097	0.0096			0.011	0.00025	0.00822	0.00004	0.021	0.00395	0.00083	0.0000024
	0.0092	0.0096	0.000035	0	0.0105	0.000179	0.00822	0.000026	0.0203	0.00395	0.000426	0.0000024
	0.0092	0.0096	0.000035	ND	0.0105	0.000192	0.00822	0.00003	0.0203	0.00395	0.000754	0.0000013
	0.0103	0.0096	0.000041	ND	0.0105	0.000192	0.0159	0.000062	0.0341	ND	0.00106	0.000003
	0.0103	0.00803	0.000041	ND	0.0106	0.000244	0.0159	0.000062	0.0341	ND	0.000754	0.000003
	0.0119	0.00875	0.000041	ND	0.0121	0.000326	0.0159	0.000062	0.0341	ND	0.000754	0.0000042
	0.0093	0.0095	0	0.000226	0.00569	0	0.00737	0	0.0113	0.00355	0.000356	0
	0.0086	0.00972	ND	0.0011	0.0127	0.000374	0.00227	ND	0.0166	0.00468	0.000627	ND
	0.0055	0.0126	0.000127	0.00108	0.00823	0.000262	0.00203	0.000203	0.0199	0.00453	0.00084	0.000158
	0.0093	0.0126	0.000127	0.0011	0.0127	0.000374	0.00737	0.000203	0.0199	0.00468	0.00084	0.0000053
	0.0086	0.0126	0.000127	0.0011	0.0127	0.000374	0.00626	0.000203	0.0199	0.00468	0.00084	ND
	0.0084	0.0085	ND	ND	0.00818	ND	0.0067	ND	0.0137	0.0037	ND	0.000002
	0.0085	0.00567	ND	0.001	0.00805	ND	0.00189	ND	0.0287	0.00313	ND	0.0000023
	0.0101	0.00714	ND	0.000921	0.00818	ND	0.00654	ND	0.0213	0.00301	ND	ND
	ND	0.0089	ND	0.0007	0.0045	ND	0.0054	ND	0.01	0.003	0.0014	ND
	ND	0.0081	ND	ND	0.00395	ND	0.00146	0.0000262	0.0155	0.00315	0.000364	0.0000019
	0.00426	0.00537	ND	ND	0.00578	ND	0.00246	0.0000293	0.0421	0.00935	0.00036	ND
	ND	0.489	0.000444	0.00431	0.00206	0.000941	0.000941	0.0000697	0.0163	0.00272	0.000441	0.0000141
	0.0138	0.00911	ND	ND	0.00477	ND	0.00204	0.0000391	0.0298	0.00339	0.000411	ND
	0.00557	0.00704	ND	ND	0.00596	ND	0.00166	ND	0.0137	0.00328	0.000301	0.0000015

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ATTACHMENT 2

Anti-degradation Reviews

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ATTACHMENT 3

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[4]. 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 were evaluated. A copy of the initial screening is included in the "Effluent Metals and RP Screening Results" table in this attachment. The initial screening check for pollutants showed that the full model needed to be run on arsenic, cadmium, copper, mercury, and free cyanide.

Reasonable potential analyses were conducted in accordance with the methods in the *Interim Methods for Evaluating Use Support for Great Salt Lake, Utah Pollution Discharge Elimination (UPDES) Permits* (DWQ, January, 2016). In accordance with these methods, freshwater numeric criteria are used for screening.

The RP model was run on arsenic, cadmium, chromium, copper, cyanide, lead, mercury, nickel, selenium, silver, and zinc using the most recent data back through March, 2010. This resulted in 24-50 data points and no reasonable potential for exceeding the acute or chronic criteria except for cyanide and mercury. The available data is for total cyanide but the criterion is for free cyanide, which is one type of total cyanide. New monitoring requirements are added to characterize free cyanide concentrations in the effluent.

The maximum potential effluent concentration for mercury was 0.0012 mg/L and the fresh water screening criterion is 0.000012 mg/L. The fresh water screening criterion is based on human health consumption of fish. Recreational fishing in the receiving waters are not known to occur. Mercury is a pollutant of interest for Great Salt Lake but as documented in the 2010 and 2012 *Integrated Reports*, the data are inadequate to determine if mercury is impairing the uses in Great Salt Lake. Increased monitoring is added using a method of sufficient sensitivity to measure mercury concentrations at 0.000012 mg/L.

The effluent data for ammonia were insufficient to evaluate reasonable potential which results in Outcome B, new monitoring requirements for ammonia.

A Summary of the RP Model inputs and outputs are included in the table below.

The Metals Initial Screening Table and Reasonable Potential Outputs Table are included in this attachment.

[4] See Reasonable Potential Analysis Guidance for definitions of terms

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Reasonable Potential Outputs Table

RP Procedure Output	Outfall Number:	1	Data Units	mg/L		
Parameter	Arsenic	Cadmium	Chromium	Lead	Silver	Copper
Distribution	Lognormal	Lognormal	Lognormal	Lognormal	Lognormal	Lognormal
Reporting Limit						
Significant Figures	2	2	2	2	2	2
Maximum Reported Effluent Conc.	0.489	0.001277	0.0021	0.001119	0.002	0.012192
Coefficient of Variation (CV)	0.67	1.5	0.88	0.74	1.8	0.44
RP Multiplier	1.8	4.3	2.7	2.2	4.7	1.8
Projected Maximum Effluent Conc. (MEC)	0.88	0.0054	0.0056	0.0025	0.0094	0.022
Confidence Interval	99	99	99	99	99	99
Acute Criterion	0.34	0.774	0.016	0.281	0.034	0.0496
Chronic Criterion	0.15	0.64	0.011	0.011	0.168	0.0293
RP for Acute?	NO	NO	NO	NO	NO	NO
RP for Chronic?	NO	NO	NO	NO	NO	NO
Outcome	B	B	B	B	B	B
Parameter	Mercury	Nickel	Selenium	Zinc	Cyanide	<=(Total)
Distribution	Lognormal	Lognormal	Lognormal	Lognormal	Lognormal	
Reporting Limit						
Significant Figures	2	2	2	2	2	
Maximum Reported Effluent Conc.	0.000158	0.015852	0.00164	0.074936	0.055	<=(Total)
Coefficient of Variation (CV)	1.9	0.73	0.47	0.4	0.86	
RP Multiplier	7.3	1.9	1.9	1.5	2.2	
Projected Maximum Effluent Conc. (MEC)	0.0012	0.03	0.0032	0.11	0.12	<=(Total)
Confidence Interval	99	99	99	99	99	
Acute Criterion	0.379	1.51	NA	0.379	0.022	<=(Free)
Chronic Criterion	0.000012	0.168	0.0046	0.382	0.0052	<=(Free)
RP for Acute?	NO	NO	NA	NO	YES	
RP for Chronic?	YES	NO	NO	NO	YES	
Outcome	B	B	B	B	B	

Metals Initial Screening Table

Reasonable Potential Screening												
Metal	Cyanide	Arsenic	Cadmium	Chromium	Copper	Lead	Nickel	Silver	Zinc	Molybdenum	Selenium	Mercury
ARP Val	0.022	0.340	0.002	0.016	0.013	0.065	0.468	0.002	0.120	1	C.018	0.0024
CRP Val	0.0052	0.150	0.000	0	0.009	0.003	0.052	0.002	0.120	1	C.005	0.000012
Metals, mg/L	0.0097	0.0096			0.011	0.00025	0.00822	0.00004	0.021	0.00395	0.00083	0.0000024
	0.0092	0.0096	0.000035	0	0.0105	0.000179	0.00822	0.000026	0.0203	0.00395	0.C00426	0.0000024
	0.0092	0.0096	0.000035	ND	0.0105	0.000192	0.00822	0.00003	0.0203	0.00395	0.C00754	0.0000013
	0.0103	0.0096	0.000041	ND	0.0105	0.000192	0.0159	0.000062	0.0341	ND	0.00106	0.000003
	0.0103	0.00803	0.000041	ND	0.0106	0.000244	0.0159	0.000062	0.0341	ND	0.C00754	0.000003
	0.0119	0.00875	0.000041	ND	0.0121	0.000326	0.0159	0.000062	0.0341	ND	0.C00754	0.0000042
	0.0093	0.0095	0	0.000226	0.00569	0	0.00737	0	0.0113	0.00355	0.C00356	0
	0.0086	0.00972	ND	0.0011	0.0127	0.000374	0.00227	ND	0.0166	0.00468	0.C00627	ND
	0.0055	0.0126	0.000127	0.00108	0.00823	0.000262	0.00203	0.000203	0.0199	0.00453	0.00084	0.000158
	0.0093	0.0126	0.000127	0.0011	0.0127	0.000374	0.00737	0.000203	0.0199	0.00468	0.00084	0.0000053
	0.0086	0.0126	0.000127	0.0011	0.0127	0.000374	0.00626	0.000203	0.0199	0.00468	0.00084	ND
	0.0084	0.0085	ND	ND	0.00818	ND	0.0067	ND	0.0137	0.0037	ND	0.000002
	0.0085	0.00567	ND	0.001	0.00805	ND	0.00189	ND	0.0287	0.00313	ND	0.0000023
	0.0101	0.00714	ND	0.000921	0.00818	ND	0.00654	ND	0.0213	0.00301	ND	ND
	ND	0.0089	ND	0.0007	0.0045	ND	0.0054	ND	0.01	0.003	0.0014	ND
	ND	0.0081	ND	ND	0.00395	ND	0.00146	0.0000262	0.0155	0.00315	0.C00364	0.0000019
	0.00426	0.00537	ND	ND	0.00578	ND	0.00246	0.0000293	0.0421	0.00935	0.00036	ND
	ND	0.489	0.000444	0.00431	0.00206	0.000941	0.000941	0.0000697	0.0163	0.00272	0.C00441	0.0000141
	0.0138	0.00911	ND	ND	0.00477	ND	0.00204	0.0000391	0.0298	0.00339	0.C00411	ND
	0.00557	0.00704	ND	ND	0.00596	ND	0.00166	ND	0.0137	0.00328	0.C00301	0.0000015
ND Value	0.022	0.340	0.002	0.016	0.013	0.065	0.468	0.002	0.120	1	C.018	0.0024
Max	0.0138	0.489	0.000444	0.00431	0.0127	0.000941	0.0159	0.000203	0.0421	0.00935	0.0014	0.000158
A RP?	YES	YES	No	No	YES	No	No	No	No	No	No	No
C RP?	YES	YES	YES	No	YES	No	No	No	No	No	No	YES

ATTACHMENT 4

Industrial Waste Survey

(For Use As Guidance)

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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

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
[ ] Aluminum Forming
[ ] Battery Manufacturing
[ ] Copper Forming
[ ] Electric & Electronic Components
[ ] Explosives Manufacturing
[ ] Foundries
[ ] Inorganic Chemicals Mfg. or Packaging
[ ] Industrial Porcelain Ceramic Manufacturing
[ ] Iron & Steel
[ ] 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

[ ] Car Wash
[ ] Carpet Cleaner
[ ] Dairy
[ ] Food Processor
[ ] Hospital
[ ] Laundries
[ ] Photo Lab
[ ] Restaurant & Food Service
[ ] Septage Hauler
[ ] Slaughter House

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
P. O. Box 144870
Salt Lake City, Utah 84114-4870

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

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

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