

Official Draft Public Notice Version September 23, 2016

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

**FACT SHEET/STATEMENT OF BASIS  
JORDAN BASIN WASTEWATER RECLAMATION FACILITY  
RENEWAL PERMIT: DISCHARGE, BIOSOLIDS & STORM WATER  
UPDES PERMIT NUMBER: UT0025852  
UPDES BIOSOLIDS PERMIT NUMBER: UTL-025852  
UPDES MULTI-SECTOR STORM WATER GENERAL PERMIT NUMBER: UTR000000  
MAJOR MUNICIPAL**

**FACILITY CONTACTS**

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**DESCRIPTION OF FACILITY**

The Jordan Basin Water Reclamation Facility (JBWRF) was completed in June 2012. The JBWRF serves the communities of Draper, Riverton, South Jordan, Sandy, Herriman, Bluffdale, and unincorporated areas of Salt Lake County. Previously, these flows reported to the South Valley Water Reclamation Facility (SVWRF).

The JBWRF is a membrane bio-reactor (MBR) treatment plant that incorporates biological phosphorus and nitrogen removal and micro-filtration. Disinfection is provided by an ultra violet disinfection system. The 30-day average design flow of phase one of the water reclamation facility is 15 MGD with a peak hourly flow of 27 MGD. At build out, the facility will have a capacity of 30 MGD.

Entities serviced by the JBWRF have formed a consortium and are currently taking the steps necessary to gain approval to reuse the effluent from the JBWRF in secondary irrigation systems within their communities. If they are successful, the JBWRF permit may be reopened sometime during this permit cycle to include reuse language.

## SUMMARY OF CHANGES FROM PREVIOUS PERMIT

A new model was used by DWQ to develop a waste load allocation (WLA) for dischargers to Waters of the State. In preparing for using this model for the Jordan River, DWQ determined that the receiving stream should have a synoptic study completed to improve the understanding of the waterway and improve the WLA. This study was conducted during the summer of 2014.

During the modeling of the Jordan River, it was determined that there were data gaps. As a result, the POTWs have agreed to continue supplemental monitoring along the river upstream of their outfalls and will continue to share the data with DWQ.

The BOD<sub>5</sub> effluent limits for the Jordan River dischargers were not modeled this permit cycle as the Wasteload Analyst indicated that the previous permit limits are sufficiently protective. Also, BOD<sub>5</sub> is currently being evaluated under a TMDL for the Jordan River.

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 (as 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.

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).

WET Biomonitoring limit decreased to IC<sub>25</sub>>41% Effluent, as determined by the WLA developed for this permit renewal.

Ammonia Daily Max limits (Acute) for fall, winter and spring decreased slightly from the previous permit. This was due to fact that the QUAL2Kw model used actual effluent pH values to determine ammonia limits, and not projected values, which were used for the previous permit.

## DISCHARGE

### DESCRIPTION OF DISCHARGE

<u>Outfall</u>	<u>Description of Discharge Point</u>
001	Located at latitude N40°30'18.29" and longitude W111°55'0.29". The discharge is through two 42-inch diameter gravity flow concrete pipes from the disinfection building to the Jordan River.

### RECEIVING WATERS AND STREAM CLASSIFICATION

The final discharge is to the Jordan River, which is classified 2B, 3B, and 4 according to *Utah Administrative Code (UAC) R317-2-13*.

Class 2B	-Protected for secondary contact recreation such as boating, wading, or similar uses.
Class 3B	-Protected for warm water species of game fish and other warm water aquatic life, including the necessary aquatic organisms in their food chain.
Class 4	-Protected for agricultural uses including irrigation of crops and stock watering.

### BASIS FOR EFFLUENT LIMITATIONS

Limitations on biochemical oxygen demand (BOD<sub>5</sub>), ammonia and dissolved oxygen (DO) are based upon the Wasteload Analysis which is appended to this document as an addendum. Limitations on total suspended solids (TSS), E. coli, pH and percent removal for BOD<sub>5</sub> and TSS are based on current Utah Secondary Treatment Standards, *UAC R317-1-3.2*. The oil and grease effluent limit is based on best professional judgment. The monthly load for ammonia was calculated using a flow of 15 MGD and the monthly average concentration limit for ammonia, and are the same as the previous permit.

### 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 arsenic, chromium, copper, silver and zinc to determine if there was reasonable potential for the discharge to exceed the applicable water quality standards. Based on the RP analysis, the following parameters exceeded the most stringent chronic water quality standard or were determined to have a reasonable potential to exceed the standard and require the inclusion of an effluent limit: None. A copy of the RP analysis is included at the end of this Fact Sheet.

The permit effluent limitations are:

Parameter	Effluent Limitations			
	Maximum Monthly Avg.	Weekly Max	Daily Min	Daily Max
BOD <sub>5</sub> , mg/L	15	21	NA	NA
BOD <sub>5</sub> , lbs/day	NA	NA	NA	1,876
BOD <sub>5</sub> Min. % Removal	85	NA	NA	NA
TSS, mg/L	25	35	NA	NA
TSS Min. % Removal	85	NA	NA	NA
E. Coli, No./100mL	126	157	NA	NA
pH, Standard Units	NA	NA	6.5	9.0
Total Ammonia (NH <sub>3</sub> ),mg/L				
Summer (Jul-Sep)	3.7	NA	NA	13.0
Fall (Oct-Dec)	5.6	NA	NA	12.6
Winter (Jan-Mar)	4.4	NA	NA	13.0
Spring (Apr-Jun)	4.8	NA	NA	10.9
Total Ammonia (as NH <sub>3</sub> ), lbs				
Summer (Jul-Sep)	13,886			
Fall (Oct-Dec)	21,017	NA	NA	NA
Winter (Jan-Mar)	16,513			
Spring (Apr-Jun)	18,014			
DO, mg/L	NA	NA	5.0	NA
WET Chronic Biomonitoring	NA	NA	NA	IC <sub>25</sub> > 41% Effluent
Oil & Grease, mg/L (when sheen observed)	NA	NA	NA	10.0

NA – Not Applicable.

## SELF-MONITORING AND REPORTING REQUIREMENTS

The permit will require reports to be submitted monthly, quarterly and annually, as applicable, on NetDMR, due 28 days after the end of the monitoring period. Lab sheets for biomonitoring must be attached to the biomonitoring NetDMR submittal.

Self-Monitoring and Reporting Requirements			
Parameter	Frequency	Sample Type	Units
Total Flow <sup>a,b</sup>	Continuous	Recorder	MGD
BOD <sub>5</sub> , Influent <sup>c</sup> Effluent	3 x Weekly	Composite	mg/L
	3 x Weekly	Composite	mg/L
BOD <sub>5</sub> <sup>d</sup>	3 x Weekly	Calculated	Lbs/day
TSS, Influent <sup>c</sup> Effluent	3 x Weekly	Composite	mg/L
	3 x Weekly	Composite	mg/L
E. Coli	3 x Weekly	Grab	No./100mL
pH	5 x Weekly	Grab	SU
Ammonia	3 x Weekly	Grab	mg/L
Ammonia <sup>d</sup>	Monthly	Calculated	Lbs/month
DO	5 x Weekly	Grab	mg/L
Total Kjeldahl Nitrogen, TKN (as N) <sup>e</sup> Influent Effluent	Monthly	Composite	mg/L
	Monthly	Composite	mg/L
Orthophosphate, (as P) Effluent <sup>e</sup>	Monthly	Composite	mg/L
Phosphorus, Total <sup>e</sup> Influent Effluent	Monthly	Composite	mg/L
	Monthly	Composite	mg/L
Nitrate, NO <sub>3</sub> <sup>e</sup>	Monthly	Grab/Composite	mg/L
Nitrite, NO <sub>2</sub> <sup>e</sup>	Monthly	Grab/Composite	mg/L
Temperature <sup>e</sup>	3 x Weekly	Grab	°C
WET - Biomonitoring Ceriodaphnia - Chronic Fathead Minnows - Chronic	2 <sup>nd</sup> & 4 <sup>th</sup> Quarter	Composite	Pass/Fail
	1 <sup>st</sup> & 3 <sup>rd</sup> Quarter	Composite	Pass/Fail
Oil & Grease	When Sheen Observed	Grab	mg/L
Metals <sup>f,g</sup> , Influent Effluent	Quarterly	Composite	mg/L
	Quarterly	Composite	mg/L
Organic Toxics, Influent Effluent	Yearly	Grab	mg/L
	Yearly	Grab	mg/L

<sup>a</sup> 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.

<sup>b</sup> If the rate of discharge is controlled, the rate and duration of discharge shall be reported.

- c In addition to monitoring the final discharge, influent samples shall be taken and analyzed for this constituent at the same frequency as required for this constituent in the discharge.
- d The permittee shall calculate the load for this parameter, in pounds. The ammonia load shall be calculated using the monthly average flow and the average of the ammonia concentrations for that month. The BOD<sub>5</sub> load shall be calculated using the daily flow and the effluent BOD<sub>5</sub> concentration.
- e Total Phosphorus, Nitrate (NO<sub>3</sub>), Nitrite (NO<sub>2</sub>), TKN and temperature are being sampled in support of the work being done for the TMDL currently underway for the Lower Jordan River, as well as UAC R317-1-3.3, Technology-Based Phosphorus Effluent Limit (TBPEL) Rule. The Pollutants of Concern (POC) will be monitored and reported by the facility on an annual basis, but will not have limits associated with them. Temperature shall be reported as a daily max.
- f Cyanide is included with metals (arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, silver, zinc see permit Part II.H.).
- g In the case of mercury sampling is composite/grab, in the case of cyanide sampling is grab (see permit Part II.H.).

### **TOTAL MAXIMUM DAILY LOAD REQUIREMENTS**

JBWRF discharges wastewater into the Jordan River, which has been identified as impaired for DO and Total Dissolved Solids (TDS) based on the 2004, 303(d) assessment process as defined in the Clean Water Act. As required by R317-8-2.2, JBWRF's discharge will not cause or contribute to a violation of water quality standards based upon the following: the least degrading treatment technology was chosen and the facility will treat flows that previously reported to the South Valley Water Reclamation Facility which also discharges to the Jordan River. The result from the new discharge will be improved treatment for the same effluent previously being treated at the South Valley Water Reclamation Facility. As required under federal regulation, a total maximum daily load (TMDL) will be developed for all impaired waters. The TMDL will focus on developing limitations for those POCs that were identified during the 305(b) and 303(d) assessment process. POCs are parameters that are in violation of water quality standards or that contribute to impairment of a beneficial use (a major component of the water quality standards).

Currently, a TMDL evaluation is underway for the Jordan River. If the results of the TMDL process establish effluent limits for any of the POC's, 40 CFR Part 130 requires that these effluent limits are included in the UPDES permits. Therefore, it is strongly recommended that the facility staff continue to participate in the TMDL development process. The staff at the Division of Water Quality will be responsible for scheduling and notifying appropriate facility personnel regarding TMDL meetings. Please contact your UPDES permit writer for information on scheduled TMDL meetings.

### **BIOSOLIDS**

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

## SUBSTANTIAL BIOSOLIDS TREATMENT CHANGES

There have been no substantial changes to the biosolids program since the plant started operating. There are plans to improve the solids dewatering and handling process in the future, but they do not have any definitive plans yet.

## DESCRIPTION OF TREATMENT AND DISPOSAL

Jordan Basin submitted their 2015 annual biosolids report on February 17, 2016. The report states they produced 2615 dry metric tons (DMT) of solids.

Jordan Basin is a membrane bio-reactor (MBR) treatment plant. The 30-day average design flow of phase one of the new water reclamation facility will be 15 MGD with a peak hourly flow of 27 MGD. At build out, the facility will have a capacity of 30 MGD. The facility wastes solids from the basins to three centrifuges and moves them by auger conveyor to roll off bins which are transferred to ET Technologies for final treatment and disposal.

The last inspection conducted at Jordan Basin was September 8, 2015. The inspection showed that Jordan Basin 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

In 2015, the Jordan Basin disposed of 2615 DMT of biosolids, therefore they should sample at least six times a year. However, Jordan Basin transfers the biosolids to E.T. for disposal, and as long as they continue to do this, they are only required to sample once a year according to *40 CFR 258*. If they switch treatment and disposal methods in the future to land application, they will return to the required frequency under *40 CFR 503* of six times 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)*). All biosolids were transferred to ET Technologies for further treatment before being disposed of at the Salt Lake Valley Landfill.

## **BIOSOLIDS LIMITATIONS**

### Heavy Metals

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

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

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

If the biosolids are to be applied to a lawn or home garden, the biosolids shall not exceed the maximum heavy metals in Table 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 <sup>1</sup> , (mg/ha)	Pollutant Conc. Limits, (mg/kg)	APLR <sup>2</sup> , (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 <i>Salmonella</i> species –less than three (3) MPN <sup>3</sup> 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.

1 CPLR -- Cumulative Pollutant Loading Rate

2 APLR – Annual Pollutant Loading Rate

3 MPN –Most Probable Number

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

#### Landfill Monitoring

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

#### Record Keeping

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

#### Reporting

Jordan Basin 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**

Jordan Basin was required to sample for metals at least six times in 2015. Jordan Basin sampled the

centrifuge cake five times in 2015. All biosolids transferred to ET Technologies in 2015 met *Table 3 of 40 CFR 503.13*, therefore the biosolids qualify as EQ with regards to metals. The monitoring data is below.

**Jordan Basin Metals Monitoring Data 2015**

Jordan Basin Metals Monitoring Data, 2015			
Parameter	Table 3, mg/kg (Exceptional Quality)	Average, mg/kg	Maximum, mg/kg
Arsenic	41.0	10.9	14
Cadmium	39.0	0.387	0.513
Copper	1,500.0	13.1	14.4
Lead	300.0	385	448
Mercury	17.0	0.66	1.26
Molybdenum	75.0	8.28	9.74
Nickel	400.0	9.53	10.9
Selenium	36.0	8.67	11.1
Zinc	2,800.0	4.58	8.97

**PATHOGEN MONITORING DATA**

Jordan Basin was not required to monitor for pathogens. Therefore, there is not any monitoring data .

**STORM WATER**

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.
9. Visual examinations of storm water discharges.

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

## **PRETREATMENT REQUIREMENTS**

The pretreatment requirements remain the same as in the previous permit with the permittee administering an approved pretreatment program. Any changes to the program must be submitted to the Division of Water Quality prior to implementation. 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 prohibitions of 40 CFR, Part 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.

The monitoring requirements for pretreatment parameters are based on the guidance by Region VIII for approved pretreatment programs. The guidance bases the frequency of sampling on the design flow of the POTW. The current flow is about half the design flow therefore the sampling will be and kept at the current requirement of quarterly for metals and yearly for toxic organics. Influent and effluent sampling, of the POTW, must be done for the metals and organic toxics.

## **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 Whole Effluent 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*.

Jordan Basin is a major municipal wastewater treatment facility with an approved pretreatment program. Based on this and the above referenced biomonitoring document, the renewal permit for Jordan Basin will include a WET limit. Jordan Basin comprises 41% of the flow below the plant which means that the dilution is less than 20 to 1 therefore, chronic testing will be required. From chronic testing we can detect mortality as well as morbidity therefore there is no need to complete acute testing. Jordan Basin will be required to have no chronic toxicity in its effluent. Five dilution chronic testing will be required and an IC<sub>25</sub> determined. The IC<sub>25</sub> must be greater than 41% effluent.

Jordan Basin has completed both acute and chronic testing over the last permit cycle without any failures. Facility personnel have requested a reduction in testing because of their excellent WET testing record and will be given such reduction in this permit. Jordan Basin shall alternate species as indicated in the FSSOB and the proposed permit.

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 and/or test methods should additional information indicate the presence of toxicity in future discharges.

## **ANTIDEGRADATION REVIEWS**

Antidegradation Reviews are intended to ensure that waters that have better quality than required by the standards are not degraded unless the degradation is necessary for important social or economic reasons.

An ADR Level I review was performed and the conclusion was that an ADR Level II review was not required because this is a permit renewal, with no increase in effluent limits.

The DWQ concurs with the findings of the Level I (compliance with water quality standards).

## **PERMIT DURATION**

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

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## **PUBLIC NOTICE**

Began: XXXXX, 20XX

Ended: XXXXX, 20XX

Public Noticed in the Salt Lake Tribune and Deseret News.

