Official Draft Public Notice Version **June 29, 2023**
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FACT SHEET AND STATEMENT OF BASIS
KANE CREEK PRESERVATION AND DEVELOPEMNT, LLC
UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES)
NEW INDIVIDUAL DISCHARGE PERMIT
UPDES PERMIT NUMBER: UT0026204
BIOSOLIDS PERMIT NUMBER: UTL-026204
MINOR MUNICIPAL FACILITY

FACILITY CONTACTS

Person Name:	William H. Anderson, P.E.
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Facility Name:	Kane Creek Preservation and Development, LLC Wastewater Treatment Facility
Facility Address:	2481 Kane Creek Boulevard Moab, Utah 84532
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DESCRIPTION OF FACILITY

Kane Creek Preservation and Development, LLC is planning a new development project along the Colorado River near Moab, Utah located at the above facility address (facility). The facility development includes recreational facilities, commercial spaces, restaurants, overnight accommodations, single family lots, mixed use residential, and will also include a domestic wastewater treatment plant with a total design population of 1650 served. A wastewater collection system for the development will consist of 3.75 miles of piping with 3 pump stations as well as gravity flow to a new Cloacina Membrane Bio-Reactor (MBR) wastewater processing plant to be located at the northernmost portion of the property. This UPDES permit will authorize the effluent discharge from the facility MBR treatment plant, as well as the management of Biosolids as appropriate.

The MBR treatment process includes a Headworks, where the raw influent will pass through a flow meter prior to passing through an influent screen. The influent passes through a fine bar screen with a washer and compactor. Screened solids will be discharged into a bagger unit to be properly disposed offsite when full. After the Headworks, the screened influent will discharge to the anoxic chamber and Biological Nutrient Removal process where the screened influent will mix with return activated sludge (RAS) which has gravity-returned from the pre-anoxic chamber to form “mixed liquor.” Nitrates conveyed by RAS flow from the aeration basin to the oxygen-lean anoxic chamber serve to oxidize some of the influent biological oxygen demand (BOD) by which process these nitrates are converted to nitrogen gas, ultimately lowering effluent total nitrogen. Next is the Secondary Treatment, which consists of mixed liquor proceeds from the anoxic process to the aeration process where nitrification occurs by which process BOD is oxidized and

ammonia is converted to nitrates, ultimately lowering their respective effluent concentrations. This is achieved by introducing compressed air through fine bubble diffusers on an aeration network. Next is the Membrane Clarification process, where at the end of the activated sludge process, wastewater is pumped from the aeration process to the individual membranes cassette chambers using forward activated sludge (FAS) pumps. These membrane cassettes have a vacuum applied across them by permeate pumps, pulling clear water "permeate" through the membranes and leaving solids behind, outside of the membranes. The permeate pumps convey their permeate to a "clear well" reservoir of water used for periodic membrane cleaning, i.e. "backpulsing", and "clean-in-place" procedures which are fully automated.

The final step in the treatment process is an Ultra-Violet disinfection system just prior to the final effluent discharge through an outfall pipe to the Colorado River. The final effluent discharge from the facility will have an average flow rate of 0.135 million gallons per day (MGD) and a maximum design flow rate of 0.27 MGD.

The facility may choose to produce Type I Reuse water in the future for onsite irrigation or other approved uses and shall be required to obtain separate permit authorization from DWQ that will include provisions covering the type of reuse of the effluent as appropriate.

SUMMARY OF CHANGES FROM PREVIOUS PERMIT

This is a new UPDES Permit and therefore changes are not applicable at this time.

DISCHARGE INFORMATION

DESCRIPTION OF DISCHARGE

The final effluent discharge will be from the MBR treatment facility piped to the Colorado River located near the southern property boundary just upstream from the Kane Creek confluence.

Outfall	Description of Discharge Point
001	Located at latitude 38° 32' 6.73" N and longitude 109° 36' 2.94" W. The discharge is through a pipe to the Colorado River.

RECEIVING WATERS AND STREAM CLASSIFICATION

The final discharge flows into the Colorado River which is classified according to *Utah Administrative Code (UAC) R317-2-13* as follows:

Class 1C -- Protected for domestic purposes with prior treatment by treatment processes as required by the Utah Division of Drinking Water.

Class 2A -- Protected for frequent primary contact recreation where there is a high likelihood of ingestion of water or a high degree of bodily contact with the water. Examples include, but are not limited to, swimming, rafting, kayaking, diving, and water skiing.

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.

PARAMETERS OF CONCERN
The primary water quality parameters of concern (POCs) identified for the facility discharge and receiving water are; total dissolved solids, total suspended solids, biochemical oxygen demand (BOD_5),, selenium, *E. coli*, ammonia and other nutrients, as determined by DWQ during the development of this permit and to be consistent with similar type permits in the Moab area.

TOTAL MAXIUM DAILY LOAD (TMDL) REQUIREMENTS
According to the Utah Division of Water Quality (DWQ) Final 2022 Integrated Report on Water Quality, the receiving water for the discharge, Colorado River from Green River confluence to Moab (UT14030005-003_00) was listed as impaired for selenium with an approved TMDL. DWQ completed a TMDL for selenium in the Colorado River Watershed in 2014 (UDWQ, 2014). The TMDL allocated a selenium load to the nearby Moab Wastewater Treatment Plant that was derived by applying the in-stream chronic selenium standard (4.6 ug/l) times the plant's design flow rate, which yielded a selenium load of 26.1 grams/day (or g/d). Using the same approach for this new facility would yield a selenium load of 2.35 g/d as calculated (4.6 ug/l x 0.135 MGD x 3.79 conversion factor). Therefore, an annual average load of 2.35 g/d has been included as an effluent limit in this permit.

BASIS FOR EFFLUENT LIMITATIONS
In accordance with regulations promulgated in 40 Code of Federal Regulations (CFR) Part 122.44 and in Utah Administrative Code (UAC) R317-8-4.2, effluent limitations are derived from technology-based effluent limitations guidelines, Utah Secondary Treatment Standards (UAC R317-1-3.2) or Utah Water Quality Standards (UAC R317-2). In cases where multiple limits have been developed, those that are more stringent apply. In cases where no limits or multiple limits have been developed, Best Professional Judgment (BPJ) of the permitting authority may be used where applicable. "Best Professional Judgment" refers to a discretionary, best professional decision made by the permit writer based upon precedent, prevailing regulatory standards or other relevant information.

Permit limits can also be derived from the Wasteload Analysis (WLA), which incorporates Secondary Treatment Standards, Water Quality Standards, including Total Maximum Daily Load (TMDL) impairments as appropriate, Antidegradation Reviews (ADR) and designated uses into a water quality model that projects the effects of discharge concentrations on receiving water quality. Effluent limitations are those that the model demonstrates are sufficient to meet State water quality standards in the receiving waters. During this UPDES permit development, a WLA and ADR were completed as appropriate. An ADR Level I review was performed and concluded that an ADR Level II review was required since this is a proposed new discharge. The ADR Level II concludes that the selection of the preferred treatment option is also the least polluting feasible alternative. DWQ approves of the ADR Level II based upon the performance of the facility as proposed therein. The WLA indicates that the effluent limitations will be sufficiently protective of water quality in order to meet State water quality standards in the receiving waters, while the ADR Level II provides effluent limitations that are more than sufficiently protective of the receiving waters. The permittee is expected to be able to comply with these limitations. The WLA and ADR are attached as an addendum to this Fact Sheet.

The following list is the basis of the effluent limitations for the applicable permit parameters:

1) Limitations on total suspended solids (TSS), biochemical oxygen demand 5-day testing (BOD_5), *E. coli*, pH and the percent removal requirements for TSS & BOD_5 are typically based on current Utah Secondary Treatment Standards found in Utah Administrative Code (UAC) R317-1-3.2. However, As previously stated, the ADR concluded the selected treatment plant is the least

polluting feasible alternative based on facility performance and effluent quality. Thereby, the monthly average effluent limitations for TSS, BOD_5, and *E. coli* were further reduced based on the facility performance limitations as provided in the ADR. Also, monthly average effluent limitations for Total Nitrogen and Turbidity were added based on the same performance limitations as provided in the ADR.

2) The Total Phosphorus limitation and other nutrient monitoring requirements are derived from UAC R317-1-3.3, Technology-Based Phosphorus Effluent Limit (TBPEL) Rule. 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 upon facility start up and operation:

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

3) Ammonia limitations are derived from the WLA as calculated and also as provided in the ADR information.

4) The Selenium limitation is derived from the TMDL in-stream standard as calculated in the previous section.

5) The oil & grease limitation is based on best professional judgment (BPJ) of the permitting authority and to be consistent with other permits statewide.

6) The flow limitation is based upon the maximum design flow of the discharge as provided by the permittee in the UPDES permit application.

7) Total dissolved solids (TDS) limitation is based upon the Colorado River Basin Salinity Control Forum (CRBSCF) as authorized in UAC R317-2-4 to help control salinity in the Utah portion of the Colorado River Basin. The CRBSCF has established a policy for the reasonable increase of salinity for municipal discharges to any portion of the Colorado River stream system that has an impact on the lower main stem. The CRBSCF Policy entitled *"NPDES Permit Program Policy for Implementation of Colorado River Salinity Standards" (Policy)*, with the most current version dated October 2020, states that the incremental increase in salinity shall be 400 mg/L or less from the source water, which is considered to be a reasonable incremental increase above the flow weighted average salinity of the intake water supply. The Policy allows for exceptions to the

incremental increase so long as the TDS loading does not exceed one-ton per day or 366 tons per year, or if the TDS concentration is 500 mg/L or less, then no TDS loading limits shall apply as the discharge would be considered drinking water quality (fresh water waiver). It is up to the permittee to petition the DWQ Director for any such exception in the future.

Reasonable Potential Analysis
Since January 1, 2016, DWQ has conducted reasonable potential analysis (RP) following DWQ's September 2015 Reasonable Potential Analysis Guidance (RP Guidance) on all new and renewal applications received after that date. 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 additional effluent limitations may be required. Because this is a new facility yet to be constructed, there is no effluent data to perform RP for this permit development. As a result, monitoring for the appropriate metals parameters will be included in the permit in addition to the initial POCs. The additional metals monitoring will help establish a record of presence or absence of each parameter and will allow for RP to be conducted in the future.

The permit limitations and self-monitoring requirements are as follows:

Parameter, Units	Effluent Limitations [1]				
	Maximum Monthly Avg	Maximum Weekly Avg	Yearly Average	Daily Minimum	Daily Maximum
Total Flow, MGD [2, 3]	0.27	--	--	--	Report
BOD_5, mg/L [4] BOD_5 Min. % Removal	10 85	20 --	-- --	-- --	-- --
TSS, mg/L [4] TSS Min. % Removal	10 85	20 --	-- --	-- --	-- --
pH, Standard Units	--	--	--	6.5	9.0
Turbidity, NTU [5]	Report/5.0 [5]	--	--	--	--
E. coli. No/100mL	2.2	--	--	--	--
TDS Increase, mg/L [6]	Report/400 [6]	--	--	--	--
Total Phosphorus, mg/L [4]	Report	--	1.0	--	--
Total Nitrogen, mg/L [4]	Report	--	10	--	--
Ammonia, mg/L [4]	2.2	--	--	--	13.3
Total Selenium, g/day	Report	--	2.35	--	--
Oil & Grease, mg/L [7]	--	--	--	--	10.0 [7]

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

Self-Monitoring and Reporting Requirements [1]			
Parameter	Frequency	Sample Type	Units
Total Flow [2, 3]	Continuous	Recorder	gpd
BOD_5, Influent	Monthly	Composite	mg/L
Effluent [4]	Monthly	Composite	mg/L
TSS, Influent	Monthly	Composite	mg/L
Effluent [4]	Monthly	Composite	mg/L
E. coli	Monthly	Grab	No./100mL
pH	Monthly	Grab	SU
Turbidity [5]	Monthly	Grab	NTU
TDS, Source Water	Monthly	Grab	mg/L
Effluent [6]	Monthly	Grab	mg/L
Oil & Grease [7]	Monthly	Visual/Grab	mg/L
Total Phosphorus (as P) [8]			
Influent	Monthly	Composite	mg/L
Effluent	Monthly	Composite	mg/L
Ammonia (as N), Effluent [8]	Monthly	Composite	mg/L
Orthophosphate, (as P) [8]			
Effluent	Monthly	Composite	mg/L
Total Kjeldahl Nitrogen, TKN (as N) [8]			
Influent	Monthly	Composite	mg/L
Effluent	Monthly	Composite	mg/L
Nitrate, NO3, Effluent [8]	Monthly	Composite	mg/L
Nitrite, NO2, Effluent [8]	Monthly	Composite	mg/L
Total Metals, Effluent [9]	Quarterly	Grab/Composite	mg/L

Legend

1 See Permit Definitions, *Part VIII*, for definition of terms.
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.
3 If the rate of discharge is controlled, the rate and duration of discharge shall be reported.
4 In addition to monitoring the final effluent discharge, influent samples shall be taken and analyzed for this constituent at the same frequency as required for this constituent in the effluent discharge.
5 Turbidity effluent limit shall take effect once any type of onsite reuse is implemented. The permittee shall notify the Director prior to any reuse of the effluent.
6 TDS effluent concentrations shall be limited to an incremental increase of 400 mg/L over the culinary source water intake concentrations as a 30-day average.
7 Oil & Grease to be sampled when sheen is present or visible. If no sheen is present or visible, report as such.
8 These reflect changes required with the adoption of UAC R317-1-3.3, Technology-based Phosphorus Effluent Limits rule.
9 Quarterly monitoring shall be performed for the following metals parameters:

Metals to be Monitored for Reasonable Potential		
Parameter	Sample Type	Units
Total Arsenic	Composite	mg/L
Total Cadmium	Composite	mg/L
Total Chromium	Composite	mg/L

Total Copper	Composite	mg/L
Total Cyanide	Grab	mg/L
Total Lead	Composite	mg/L
Total Mercury	Grab/Composite	mg/L
Total Nickel	Composite	mg/L
Total Selenium	Composite	mg/L
Total Silver	Composite	mg/L
Total Zinc	Composite	mg/L

BIOSOLIDS

The State of Utah administers the biosolids regulations as part of the UPDES Permit Program. The biosolids program was delegated by the EPA to Utah in 1996 with the adoption by reference of the § 40 Part 503 Rules (Biosolids Rules). The Biosolids Rules set out the standards and requirements for biosolids that are to be distributed to the public and/or the beneficial use of the biosolids as soil amendments. The Biosolids Rules set out what condition the biosolids should meet at the time they are distributed in bulk as a soil amendment and used by the general public. Unclassified biosolids may not be land applied must be disposed of in a proper manner.

The Biosolids Rules specifically do not establish requirements for the use and disposal of sludge generated by the treatment of wastewater from purely industrial sources, when sludge is determined to be hazardous waste; or septage from either industrial or commercial sources, and mixtures of these, even if they are mixed with sludge or septage from domestic sources. The Biosolids Rules also do not establish the requirements for a process used to treat the domestic sewage or for processes used to treat sewage sludge prior to final use or disposal, and the rules do not require the selection of a sewage sludge use or disposal practice. The Biosolids Rules indicate the choice of how and where sewage sludge is used or disposed is a local decision, left to the permittee, so long as the sewage sludge meets certain criteria.

Biosolids permits are issued as part of the Individual UPDES discharge permit or as a separate UPDES Permit if the entity does not require a surface water discharge permit. Biosolids permits go through the same administrative process. The UPDES permit includes both surface water discharge and Biosolids requirements.

DESCRIPTION OF TREATMENT AND DISPOSAL

Biosolids concentrations from the facility will be monitored by an on-line suspended solids meter located in the FAS Chamber. A sludge wasting pump will remove a calibrated portion of activated sludge to an exterior sludge storage to be collected, dried and properly disposed offsite.

The facility is a new permittee that has yet to build a facility. There is no data available, and there has yet to be an inspection.

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

The facility will be a new facility without any biosolids production history. The facility will also service a limited number of connections when it is completed. The facility will need to sample once per year. The minimum monitoring frequency will be re-evaluated during the permit renewal.

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 3 below. If the biosolids do not meet these requirements, the biosolids cannot be sold or given away for applications to home lawns and gardens.

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

Class B Requirements With Regards to Heavy Metals

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

> The maximum heavy metals listed in *40 CFR Part 503.13(b) Table 1* and the heavy metals loading rates in *40 CFR Part 503.13(b) Table 2*; or
>
> The maximum heavy metals in *40 CFR Part 503.13(b) Table 1* and the monthly heavy metals concentrations in *40 CFR Part 503.13(b) Table 3*.

Tables 1, 2, and 3 of Heavy Metal Limitations

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

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

Pathogens

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

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

Class A Requirements for Home Lawn and Garden Use

If biosolids are land applied to home lawns and gardens, the biosolids need to be treated by a specific process to further reduce pathogens (PFRP), and meet a microbiological limit of less than 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. At this time the facility does not intend to distribute biosolids to the public for use on the lawn and garden and thus is not required meet Class A Biosolids requirements currently.

If in the future, if the facility decides to give away the biosolids to the public, they will need to determine what method they will use to meet PFRP and notify the Director prior to treatment of the 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). At this time the facility does not intend to distribute bulk biosolids for land application and thus is not required meet Class B Biosolids requirements currently.

If in the future, if the facility decides to land apply the biosolids, they will need to determine what method they will use to meet PSRP and notify the Director prior to treatment of the biosolids. Until then they will be disposing of them in a landfill, or transferring them to another facility for treatment and disposal.

Vector Attraction Reduction (VAR)
If the biosolids are land applied the facility will be required to meet VAR through the use of a method of listed under *40 CFR 503.33.* At this time the facility does not intend to distribute biosolids to the public for beneficial use, and will be disposing of them in a landfill. If in the future, the facility plans to land apply the biosolids, they will have to decide and notify the Director of what method they have chosen to achieve VAR prior to treatment of the biosolids. Until then they will be disposing of them in a landfill, or transferring them to another facility for treatment and disposal.

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
The facility 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

The facility is a yet to be constructed, new facility with no monitoring history. They are not expected to have any issues will meeting the monitoring requirements or limits as they are not expected to have any categorical industries contributing to the collection system.

STORM WATER REQUIREMENTS

Separate storm water permits may be required based on the types of activities occurring on site. The *Utah Administrative Code (UAC) R-317-8-3.9* 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. waste water treatment facilities with a design flow of 1.0 MGD or greater, and/or,
2. waste water treatment facilities with an approved pretreatment program as described in *40CFR 403.*

This facility does not meet either one of the above criteria therefore, the permit does not include storm water provisions as appropriate. The permit does however include a storm water re-opener provision should conditions change in the future.

Permit coverage under the Construction General Storm Water Permit (CGP) is required however, for any construction at the facility which disturb an acre or more, or is part of a common plan of development or sale that is an acre or greater. A Notice of Intent (NOI) is required to obtain a construction storm water permit prior to the period of construction. Information on storm water permit requirements can be found at http://stormwater.utah.gov.

PRETREATMENT REQUIREMENTS

The facility is not required to develop an Approved Pretreatment Program. This decision is based on the following information: the flow through the plant is less than five (5) MGD and there are no known Categorical Industries Users that will be discharging wastewater to the Publicly/Privately Owned Treatment Works (POTW).

Although the facility does not have to develop an 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.

An industrial waste survey (IWS) is required to be updated if an Industrial User begins to discharge to the facility POTW or an existing Industrial User changes their discharge. The facility must resubmit an IWS no later than sixty days following the introduction or change as stated in Part II of the permit. The IWS information and forms have been included as an attachment to this Fact Sheet for future reference.

It is required that the facility 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 facility 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 (DWQ Policy)*. 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 an infrequent amount of effluent, in which toxicity is neither an existing concern, nor likely to be present. Also, the receiving water of the Colorado River provides a substantial dilution ratio (>20:1) as compared to the effluent discharge. Based on these considerations, there is no reasonable potential for toxicity in the permittee's discharge as per DWQ Policy. 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

As stated in UAC R317-8-5.1(1), UPDES permits shall be effective for a fixed term not to exceed five (5) years.

Drafted and Reviewed by
Jeff Studenka, Discharge Permit Writer
Daniel Griffin, Biosolids
Jennifer Robinson, Pretreatment
Lonnie Shull, Biomonitoring
Carl Adams, Storm Water
Lucy Parham, TMDL/Watershed & Salinity Coordinator
Chris Shope, Wasteload Analysis/ADR
Utah Division of Water Quality, (801) 536-4300
April 18, 2023

PUBLIC NOTICE INFRMATION (to be updated after)

Began: Month Day, Year
Ended: Month Day, Year

Comments will be received at: 195 North 1950 West
PO Box 144870
Salt Lake City, UT 84114-4870

The Public Notice of the draft permit and the draft permit documents will be published on the DWQ website for at least 30 days as required per UAC R317-8-6.5.

During the public comment period provided under UAC R317-8-6.5, any interested person may submit written comments on the draft permit and may also 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 UAC R317-8-6.12.

ADDENDUM TO FSSOB

ATTACHMENTS (2): 1. Industrial Waste Survey Forms
2. Wasteload Analysis Summary & Model Output
3. Antidegradation Review, Feasibility Report & Application Information

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ATTACHMENT 1

Industrial Waste Survey

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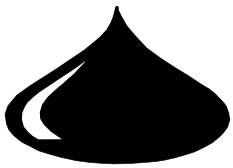
Pretreatment Wastewater Survey



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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ATTACHMENT 2

Wasteload Analysis Summary & Model Output

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ATTACHMENT 3

Antidegradation Review, Feasibility Report & Permit Application Information