Official Draft Public Notice Version **April 15th, 2026**
The findings, determinations, and assertions contained in this document are not final and subject to change following the public comment period.

FACT SHEET
WOODS CROSS DRINKING WATER TREATMENT PLANT
PERMIT: DISCHARGE
UPDES PERMIT NUMBER: UT0026361
MINOR INDUSTRIAL

FACILITY CONTACTS

Operator Name:	Woods Cross City
Contact:	Sam Christiansen
Position:	City Public Works Director
Phone Number:	(801) 677-1020

Permittee Name:	Woods Cross City
Facility Name:	Woods Cross Drinking Water Treatment Plant
Mailing Address:	2287 S 1200 W Woods Cross, UT 84087
Actual Address:	1555 S 800 W Woods Cross, UT 84087

DESCRIPTION OF FACILITY

Woods Cross City (Permittee) supplies drinking water to customers from groundwater wells. Since the late 1980s, the Permittee has been addressing contamination in some of the Woods Cross City wells from Tetrachloroethylene, known as PCE, a chemical typically associated with the dry-cleaning industry that inadvertently entered the groundwater. The Woods Cross Drinking Water Treatment Plant (Facility) was designed and constructed in 2015 to remove PCE. The Facility utilizes Granular Activated Carbon (GAC), as the Environmental Protection Agency (EPA) has noted GAC as the best available treatment technology for PCE. The Facility has two trains of GAC filtration vessels. Three wells are piped to the Facility, treated, and then re-piped back to the distribution system.

GAC must be periodically exchanged because its adsorption capacity for PCE is limited. Continuous operation results in progressive saturation of adsorption sites, competitive uptake of background organic compounds, and gradual pore fouling, all of which reduce treatment efficiency. This increases the risk of contaminant breakthrough. Based on influent concentrations, flow rates, and adsorption modeling, the Facility uses an approximately five-year replacement interval to ensure reliable PCE removal, sustained compliance with drinking water standards, and consistent system performance. During carbon exchange, the GAC vessels are backwashed to expand the media bed and flush out accumulated fines. The resulting backwash water is discharged from the Facility to a stormwater basin where carbon fines are settled. This water is then discharged to the Wood Cross Stormwater Sewer system. Compliance samples will be taken at a concrete control structure just before discharge to the stormwater system referred to as the backwash waste basin. It has been determined that this location will be a representative sample.

The Facility last completed a refresh of the GAC vessels in August of 2025. It is anticipated that they will not need to discharge again until 2029. Therefore, the outfall will be inactivate upon Permit issuance until the next discharge event. The Permittee must notify the Division of Water Quality (DWQ) 60 days prior to discharge to allow for Outfall reactivation.

DISCHARGE

DESCRIPTION OF DISCHARGE

Outfall	Description of Discharge Point
001	Located at latitude 40° 54' 44" and longitude 111° 56' 6.55". Discharge from the backwash waste line on the side of the Facility is piped underground to a stormwater settling basin. From the stormwater settling basin, the discharge goes over a weir into the Woods Cross Storm Sewer, which eventually flows into the State Canal.

RECEIVING WATERS AND STREAM CLASSIFICATION

The discharge eventually flows into the State Canal, which is a Class 2B, 3B, 3D, 4, according to Utah Administrative Code (UAC) R317-2-13:

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

Class 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 3D -- Protected for waterfowl, shore birds and other water-oriented wildlife not included in Classes 3A, 3B, or 3C, including the necessary aquatic organisms in their food chain.

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

TOTAL MAXIMUM DAILY LOAD (TMDL) REQUIREMENTS

There are no TMDL requirements for this discharge location.

BASIS FOR EFFLUENT LIMITATIONS

In accordance with regulations promulgated in 40 Code of Federal Regulations Part 122.44 and 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) as applicable. 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. BPJ 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 any applicable 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 Memo and ADR were completed as appropriate, and it was determined that this discharge will not cause a violation of water quality standards. An Antidegradation Level II review was required since this is a new permit. The WLA Memo indicates that the effluent limitations will be sufficiently protective of water quality, in order to meet State water quality standards in the receiving waters. The WLA and ADR information located is attached to this Fact Sheet.

Limitations on total suspended solids (TSS), Dissolved Oxygen (DO) and Total Residual Chlorine (TRC) are based on the WLA Memo. The pH limitation is based on Utah water quality standards. The oil and grease limit is based on BPJ.

Typically, Drinking Water facilities are covered under the General Permit Drinking Water Treatment Plants: UTG640000. The Facility is not eligible for that permit because backwash is not an allowable discharge under it. However, the discharge limits and pollutants of concern in the drinking water general permit can be informative for this permit, particularly regarding aluminum and iron. Looking at the discharge limits for those pollutants in the WLA, they are 8.7 mg/L for aluminum and 10.85 mg/L for iron. These are significantly higher than what would be expected for this discharge. Therefore, they will not be included as permit discharge limits. However, the Metals sampling will include these pollutants and will allow the DWQ to screen for reasonable potential against these values and include a limit in future permits if needed. Limitations could also be added under the Water Quality reopener provision of this permit if necessary.

The Water Quality Board adopted UAC R317-1-3.3, Technology-Based Phosphorus Effluent Limit (TBPEL) Rule in 2014. The TBPEL rule relates to "non-lagoon" wastewater treatment plants establishes new regulations for the discharge of phosphorus to surface waters and is self-implementing. Since phosphorus is not a pollutant of concern in this discharge, TBPEL requirements are not included in this 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. To complete a robust RP, more than 10 data points per parameter are needed. Since this was a new permit, there were not 10 data points; therefore, sufficient data is not available to perform a RP. For this permit cycle, the Permittee will be required to complete, at a minimum, quarterly metals sampling. If additional sampling is performed, it shall be reported to DWQ. Fewer than 10 data points may affect RP outcomes, potentially requiring additional monitoring in the future. After at least 10 samples have been collected, the Permittee can request RP be run to evaluate the reasonable potential to discharge these pollutants. Metals sampling will only be required if the facility is discharging.

The Permit limitations are:

Parameter	Effluent Limitations *a		
	Maximum Monthly Avg	Daily Minimum	Daily Maximum
Total Flow, Million Gallons Per Day (MGD)	1.63	--	1.63
TSS, mg/L	--	--	90
DO, mg/L	--	5.5	--
TRC, mg/L	--	--	0.101
Oil & Grease, mg/L	--	--	10.0
pH, Standard Units	--	6.5	9

SELF-MONITORING AND REPORTING REQUIREMENTS

The permit requires reports to be submitted monthly and annually, as applicable, on Discharge Monitoring Report (DMR) forms due 28 days after the end of the monitoring period. Effective January 1, 2017, monitoring results shall be submitted using NetDMR unless the Permittee has successfully petitioned for an exception. Lab sheets for biomonitoring, metals and toxic organics shall be attached to the DMRs. Compliance monitoring will be conducted at the Outfall location.

Self-Monitoring and Reporting Requirements *a			
Parameter	Frequency	Sample Type	Units
Total Flow *b	Continuous	Recorder	MGD
TSS, Effluent	Monthly	Grab	mg/L
pH	Monthly	Grab	SU
DO	Monthly	Grab	mg/L
TRC *c	Monthly	Grab	mg/L
Oil & Grease *d	When Sheen Observed	Grab	mg/L
Metals, Effluent *e	Quarterly	Grab	mg/L
Organic Toxics *f	Quarterly	Grab	mg/L

*a See Definitions, Part VIII, for the definition of terms.

*b If the rate of discharge is controlled, the rate and duration of discharge shall be reported.

*c Analytical results less than 0.06 mg/l shall not be considered out of compliance with the permit. For purposes of calculating averages and reporting on the Discharge Monitoring Report form, the following will apply:

1) analytical values less than 0.02 mg/L shall be considered zero; and
2) analytical values less than 0.06 mg/L and equal to or greater than 0.02 mg/L will be recorded as measured.

*d Oil & Grease shall be sampled when sheen is present or visible. If no sheen is present or visible, report NA.

*e Metals to be sampled for reasonable potential include;

Parameter	MDL (µg/L)
Total Arsenic	340
Total Cadmium	7.3
Total Chromium	5,000
Total Copper	51
Total Lead	470
Total Molybdenum	NA
Total Nickel	1,500
Total Selenium	18.4
Total Silver	40
Total Zinc	384
Total Cyanide	244
Total Mercury	26.6

The minimum detection limit (MDL) of the test method used for analysis must be below this limit, if a test method is not available the Permittee must submit documentation to the Director regarding the method that will be used.

*f A list of pollutants to be sampled can be found in 40 CFR 426 Appendix A.

BIOSOLIDS

The State of Utah has adopted the 40 C.F.R. § 503 federal regulations for the disposal of sewage sludge

(biosolids) by reference. However, this Facility does not receive, generate, treat or dispose of biosolids. Therefore 40 C.F.R. § 503 shall not apply.

STORM WATER

Separate storm water permits may be required based on the types of activities occurring on site.

Permit coverage under the Multi Sector General Permit (MSGP) for Storm Water Discharges from Industrial Activities may be required based on the Standard Industrial Classification (SIC) code for the facility and the types of industrial activities occurring. If coverage is required and the facility is not already covered, it has 30 days from when this permit is issued to submit the appropriate Notice of Intent (NOI) for the MSGP or exclusion documentation.

Permit coverage under the Construction General Storm Water Permit (CGP) is required 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

Permittee does not discharge process wastewater to a Publicly Owned Treatment Works (POTW). Any process wastewater that Permittee may discharge to a POTW, either as a direct discharge or as a hauled waste, is subject to federal, state, and local pretreatment regulations. Pursuant to section 307 of the Clean Water Act, the Mine shall comply with all applicable federal general pretreatment regulations promulgated, found in 40 CFR 403, the pretreatment requirements found in UAC R317-8-8, and any specific local discharge limitations developed by the POTW accepting the waste.

In addition, in accordance with 40 CFR 403.12(p)(1), Permittee must notify the POTW, the EPA Regional Waste Management Director, the DWQ Director and the State hazardous waste authorities in writing if the Permittee discharges any substance into a POTW that if otherwise disposed of would be considered a hazardous waste under 40 CFR 261. This notification must include the name of the hazardous waste, the EPA hazardous waste number, and the type of discharge (continuous or batch).

BIOMONITORING REQUIREMENTS

A nationwide effort to control toxic discharges where effluent toxicity is an existing or potential concern is regulated in accordance with the Utah Pollutant Discharge Elimination System Permit and Enforcement Guidance Document for Whole Effluent Toxicity Control (biomonitoring), dated February 2018. Authority to require effluent biomonitoring is provided in Permit Conditions, UAC R317-8-4.2, Permit Provisions, UAC R317-8-5.3 and Water Quality Standards, UAC R317-2-5 and R317 -2-7.2.

The Permittee is a minor industrial facility operated by a municipality that will be discharging an infrequent amount of effluent, in which toxicity is neither an existing concern, nor likely to be present. This discharge is to a stormwater settling basin, then to the Woods Cross Storm Sewer, and eventually the State Canal. There is no available data to conclude that any of these are impaired. Based on these considerations, and the absence of receiving stream water quality monitoring data, there is no reasonable potential for toxicity in the Permittee's

discharge (per State of Utah Permitting and Enforcement Guidance Document for WET Control). As such, there will be no numerical WET limitations or WET monitoring requirements in this permit. However, the permit will contain a toxicity limitation re-opener provision that allows for modification of the permit should additional information indicate the presence of toxicity in the discharge.

PERMIT DURATION

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

Drafted and Reviewed by
Lonnie Shull, Discharge Permit Writer,
Reasonable Potential Analysis, Biomonitoring
Daniel Griffin, Biosolids
Jennifer Robinson, Pretreatment
Jordan Bryant, Storm Water
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Utah Division of Water Quality, (801) 536-4300

PUBLIC NOTICE INFORMATION (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 was published on State of Utah and/or DWQ's website for at least 30 days as required.

During the public notice and comment period provided under UAC 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 UAC R317-8-6.12.

ADDENDUM TO FACT SHEET

During finalization of the Permit certain dates, spelling edits and minor language corrections were completed. Due to the nature of these changes, they are considered minor changes and the permit is not required to be re Public Noticed as provided in UAC R317-8-5.6(3).

Responsiveness Summary

ATTACHMENT 1

Wasteload Analysis

Utah Division of Water Quality
Statement of Basis
ADDENDUM
Wasteload Analysis and Antidegradation Level I Review

Date: **February 9, 2026**

Prepared by: **Suzan Tahir**
Standards and Technical Services

Facility: **Woods Cross Drinking Water Treatment Facility**
UPDES No. UT0026361

Receiving water: **A-1 drain→Davis County Canal→State Canal→Great Salt Lake (GSL)**

This addendum summarizes the wasteload analysis that was performed to determine water quality based effluent limits (WQBEL) for this discharge. Wasteload analyses are performed to determine point source effluent limitations necessary to maintain designated beneficial uses by evaluating projected effects of discharge concentrations on in-stream water quality. The wasteload analysis also takes into account downstream designated uses (UAC R317-2-8). Projected concentrations are compared to numeric water quality standards to determine acceptability. The numeric criteria in this wasteload analysis may be modified by narrative criteria and other conditions determined by staff of the Division of Water Quality.

Discharge

Proposed Outfall 001 is Granular Activated Carbon (GAC) Backwash

Latitude/Longitude: 40° 54’ 0.44” N & 111° 56’ 6.55” W

Design Flow: The mean annual design discharge is 1.63 MGD (2.52 cfs)

The Woods Cross Drinking Water Treatment Facility uses Granular Activated Carbon (GAC) as part of their treatment system. The GAC beds must be flushed when new GAC is installed. This permit application pertains to the discharge from flushing the GAC beds once the new GAC media is installed.

Receiving Water

The receiving water for Outfall 001is the State Canal. Per UAC R317-2-13.5.a, the beneficial uses for the State Canal, from Farmington Bay to confluence with the Jordan River are 2B, 3B*, 3D, 4. The (*) indicates Site-specific criteria are associated with this use.

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

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

- Class 3D*: Protected for waterfowl, shore birds and other water-oriented wildlife not included in Classes 3A, 3B, or 3C, including the necessary aquatic organisms in their food chain.*

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

Critical Flow

The critical flow for the wasteload analysis is the lowest stream flow for seven consecutive days with a ten-year return frequency (7Q10). Flow records from monitoring station 4990880, STATE CANAL AT ROAD XING (about 400 South), for the period 2015-2026 were used to calculate critical flows. The flow data set was insufficient to statistically calculate the 7Q10 flow therefore seasonal 20th percentile flow values were used for this wasteload analysis.

Table 1: Critical Flows

Season	Critical Low Flow (cfs)
Summer	50.9
Fall	22.9
Winter	34.8
Spring	52.0
Overall average	*68.6*

Receiving water quality data

Receiving water quality data was obtained from monitoring station 4990880, STATE CANAL AT ROAD XING (about 400 South) for the period 2015-2026. The seasonal average values were calculated for each constituent with available data in the receiving water. There is a site specific criterion for dissolved oxygen for this site in TABLE 2.14.5 (Site Specific Criteria For Dissolved Oxygen For Jordan River From Farmington Bay To Confluence With Little Cottonwood Creek, Surplus Canal, And State Canal).

	Site specific dissolved oxygen criteria mg/L	
	May-July	August-April
30-day average	5.5 mg/l	5.5
7-day average	5.5 mg/l	N/A

Instantaneous minimum	4.5 mg/l	4.0

Assessment Category and Total Maximum Daily Load (TMDL)

The receiving water , State Canal (State Canal from Farmington Bay to confluence with the Jordan River, UT16020204-034_00) has been assessed as of Utah's 2024 303(d) Water Quality Assessment Report. The State Canal is listed as impaired for ammonia, dissolved oxygen and total dissolved solids (TDS). There are no applicable or approved TMDLs for the receiving water at this point.

Parameters of Concern

The potential parameters of concern identified for the discharge and receiving water are total suspended solids (TSS), total dissolved solids (TDS), total residual chlorine (TRC), pH, dissolved oxygen (DO), and total ammonia (TNH3) as determined in consultation with the UPDES Permit Writer. Additional parameters of concern may become apparent as a result of reasonable potential analysis, technology-based standards, or other factors as determined by the UPDES Permit Writer.

Protection of Downstream Uses

Per UAC R317-2-8, *all actions to control waste discharges under these rules shall be modified as necessary to protect downstream designated uses*. For this discharge, numeric aquatic life use criteria ($3B^{*}$) apply to the immediate receiving water (State Canal). The further downstream receiving water for this discharge is the Great Salt Lake. Therefore, the State Canal is considered the limiting condition in this wasteload to ensure protection of aquatic life uses.

Mixing Zone

Per R317-2-5, "Streams with a flow equal to or less than twice the flow of a point source discharge may be considered to be totally mixed." The mixing zone analysis in the model shows the discharge to be totally mixed. Water quality standards must be met at the discharge outfall.

WET Limits

The percent of effluent in the receiving water in a fully mixed condition, and acute and chronic dilution in a not fully mixed condition are calculated in the WLA in order to generate WET limits. The LC_{50} (lethal concentration, 50%) percent effluent for acute toxicity and the IC_{25} (inhibition concentration, 25%) percent effluent for chronic toxicity, as determined by the WET test, needs to be below the WET limits, as determined by the WLA. The WET limit for LC_{50} is typically 100% effluent and does not need to be determined by the WLA.

Table 2: WET Limits for IC_{25}

Season	Percent (%) Effluent
Summer	4.7%
Fall	9.9 %
Winter	6.8 %
Spring	4.6 %

Antidegradation Level I Review

The objective of the Level I ADR is to ensure the protection of existing uses, defined as the beneficial uses attained in the receiving water on or after November 28, 1975. No evidence is known that the existing uses deviate from the designated beneficial uses for the receiving water. Therefore, the beneficial uses will be protected if the discharge remains below the WQBELs presented in this wasteload.

Antidegradation Level II Review

A Level II Antidegradation Review (ADR) is required for this discharge, as this wasteload is developed for a new facility and outfall.

Documents

WLA Documents:

- WoodCrossDrinkingPlant_WLA_2026.docx
- WoodCrossDrinkingPlant_WLA_2026.xlsm
- WoodCrossDrinkingPlant_WLA_SOB_2026.pdf

References:

Utah Division of Water Quality. 2021. Utah Wasteload Analysis Procedures Version 2.0. https://lf-public.deq.utah.gov/WebLink/ElectronicFile.aspx?docid=14329&eqdocs=DWQ-2021-000684

Utah Division of Water Quality. 2024. *Final 2024 Integrated Report on Water Quality.* https://lf-public.deq.utah.gov/WebLink/ElectronicFile.aspx?docid=87957&eqdocs=DWQ-2024-003593

Lewis, B., J. Saunders, and M. Murphy. 2002. *Ammonia Toxicity Model (AMMTOX, Version2): A Tool for Determining Effluent Ammonia Limits*. University of Colorado, Center for Limnology.

Utah Division of Water Quality
Salt Lake City, Utah

WASTELOAD ANALYSIS [WLA]
Addendum: Statement of Basis

2/9/2026
10:00:00 AM

Facilities: **Woods Cross Drinking Water Treatment Facility** **UPDES No: UT-0026361**
Discharging to: **A-1 drain-->Davis County Canal--> State Canal-->Great Salt Lake**

I. Introduction

Wasteload analyses are performed to determine point source effluent limitations necessary to maintain designated beneficial uses by evaluating projected effects of discharge concentrations on in-stream water quality. The wasteload analysis also takes into account downstream designated uses [R317-2-8, UAC]. Projected concentrations are compared to numeric water quality standards to determine acceptability. The anti-degradation policy and procedures are also considered. The primary in-stream parameters of concern may include metals (as a function of hardness), total dissolved solids (TDS), total residual chlorine (TRC), un-ionized ammonia (as a function of pH and temperature, measured and evaluated interms of total ammonia), and dissolved oxygen.

Mathematical water quality modeling is employed to determine stream quality response to point source discharges. Models aid in the effort of anticipating stream quality at future effluent flows at critical environmental conditions (e.g., low stream flow, high temperature, high pH, etc).

The numeric criteria in this wasteload analysis may always be modified by narrative criteria and other conditions determined by staff of the Division of Water Quality.

II. Receiving Water and Stream Classification

A-1 drain-->Davis County Canal--> State Canal-->Great Salt Lake:	2B,3B*,3D,4
Antidegradation Review:	Level I review completed. Level II review is required.

III. Numeric Stream Standards for Protection of Aquatic Wildlife

Total Ammonia (TNH3)		Varies as a function of Temperature and pH Rebound. See Water Quality Standards	
Chronic Total Residual Chlorine (TRC)		0.011	mg/l (4 Day Average)
		0.019	mg/l (1 Hour Average)
Chronic Dissolved Oxygen (DO)	Site Specific DO criteria	5.5	mg/l (30 Day Average)
		N/A	mg/l (7Day Average)
		4.0	mg/l (1 Day Average)
Maximum Total Dissolved Solids		1200.0	mg/l

Acute and Chronic Heavy Metals (Dissolved)

Parameter	4 Day Average (Chronic) Standard Concentration		Load*		1 Hour Average (Acute) Standard Concentration		Load*	
Aluminum	87.00	ug/l**	1.183	lbs/day	750.00	ug/l	10.195	lbs/day
Arsenic	150.00	ug/l	2.039	lbs/day	340.00	ug/l	4.622	lbs/day
Cadmium	2.37	ug/l	0.032	lbs/day	7.30	ug/l	0.099	lbs/day
Chromium III	265.63	ug/l	3.611	lbs/day	5557.41	ug/l	75.543	lbs/day
ChromiumVI	11.00	ug/l	0.150	lbs/day	16.00	ug/l	0.217	lbs/day
Copper	30.19	ug/l	0.410	lbs/day	51.11	ug/l	0.695	lbs/day
Iron					1000.00	ug/l	13.593	lbs/day
Lead	18.30	ug/l	0.249	lbs/day	469.67	ug/l	6.384	lbs/day
Mercury	0.0120	ug/l	0.000	lbs/day	2.40	ug/l	0.033	lbs/day
Nickel	166.86	ug/l	2.268	lbs/day	1500.77	ug/l	20.400	lbs/day
Selenium	4.60	ug/l	0.063	lbs/day	18.40	ug/l	0.250	lbs/day
Silver	N/A	ug/l	N/A	lbs/day	40.24	ug/l	0.547	lbs/day
Zinc	383.95	ug/l	5.219	lbs/day	383.95	ug/l	5.219	lbs/day

* Allowed below discharge
**Chronic Aluminum standard applies only to waters with a pH < 7.0 and a Hardness < 50 mg/l as CaCO3

Metals Standards Based upon a Hardness of 395.28 mg/l as CaCO3

IV. Numeric Stream Standards for Protection of Agriculture

	4 Day Average (Chronic) Standard			1 Hour Average (Acute) Standard		
	Concentration		Load*	Concentration		Load*
Arsenic				100.0	ug/l	lbs/day
Boron				750.0	ug/l	lbs/day
Cadmium				10.0	ug/l	0.07 lbs/day
Chromium				100.0	ug/l	lbs/day
Copper				200.0	ug/l	lbs/day
Lead				100.0	ug/l	lbs/day
Selenium				50.0	ug/l	lbs/day
TDS, Summer				1200.0	mg/l	8.16 tons/day

VI. Numeric Stream Standards the Protection of Human Health from Water & Fish Consumption [Toxics]

	Maximum Conc., ug/l - Acute Standards				
	Class 1C		Class 3A, 3B		
Metals					
Antimony	ug/l	lbs/day			
Arsenic	ug/l	lbs/day	640.00	ug/l	184.28 lbs/day
Asbestos	ug/l	lbs/day			
Beryllium					
Cadmium					
Chromium (III)					
Chromium (VI)					
Copper					
Cyanide	ug/l	lbs/day	4.0E+02	ug/l	115.18 lbs/day
Lead	ug/l	lbs/day			
Mercury			0.15	ug/l	0.04 lbs/day
Nickel			4600.00	ug/l	1324.54 lbs/day
Selenium	ug/l	lbs/day			
Silver	ug/l	lbs/day			
Thallium			0.50	ug/l	0.14 lbs/day
Zinc					

There are additional standards that apply to this receiving water, but were not considered in this modeling/waste load allocation analysis.

VII. Mathematical Modeling of Stream Quality

Model configuration was accomplished utilizing standard modeling procedures. Data points were plotted and coefficients adjusted as required to match observed data as closely as possible.

The modeling approach used in this analysis included one or a combination of the following models.

(1) The Utah River Model, Utah Division of Water Quality, 1992. Based upon STREAMDO IV (Region VIII) and Supplemental Ammonia Toxicity Models; EPA Region VIII, Sept. 1990 and QUAL2E (EPA, Athens, GA).

(2) Utah Ammonia/Chlorine Model, Utah Division of Water Quality, 1992.

(3) AMMTOX Model, University of Colorado, Center of Limnology, and EPA Region 8

(4) Principles of Surface Water Quality Modeling and Control. Robert V. Thomann, et.al. Harper Collins Publisher, Inc. 1987, pp. 644.

Coefficients used in the model were based, in part, upon the following references:

(1) Rates, Constants, and Kinetics Formulations in Surface Water Quality Modeling. Environmental Research Laboratory, Office of Research and Development, U.S. Environmental Protection Agency, Athens Georgia. EPA/600/3-85/040 June 1985.

(2) Principles of Surface Water Quality Modeling and Control. Robert V. Thomann, et.al. Harper Collins Publisher, Inc. 1987, pp. 644.

VIII. Modeling Information

The required information for the model may include the following information for both the

upstream conditions at low flow and the effluent conditions:

Flow, Q, (cfs or MGD)	D.O. mg/l
Temperature, Deg. C.	Total Residual Chlorine (TRC), mg/l
pH	Total NH3-N, mg/l
BOD5, mg/l	Total Dissolved Solids (TDS), mg/l
Metals, ug/l	Toxic Organics of Concern, ug/l

Other Conditions

In addition to the upstream and effluent conditions, the models require a variety of physical and biological coefficients and other technical information. In the process of actually establishing the permit limits for an effluent, values are used based upon the available data, model calibration, literature values, site visits and best professional judgement.

Model Inputs

The following is upstream and discharge information that was utilized as inputs for the analysis. Dry washes are considered to have an upstream flow equal to the flow of the discharge.

Current Upstream Information

	Stream Critical Low Flow cfs	Temp. Deg. C	pH	T-NH3 mg/l as N	BOD5 mg/l	DO mg/l	TRC mg/l	TDS mg/l
Summer	50.9	21.7	7.7	0.29	3.00	6.83	0.00	1002.9
Fall	22.9	9.1	7.9	0.43	3.00	---	0.00	974.0
Winter	34.8	5.3	7.8	0.76	3.00	---	0.00	974.0
Spring	52.0	12.6	7.9	0.25	3.00	---	0.00	974.0

Dissolved Metals	Al ug/l	As ug/l	Cd ug/l	CrIII ug/l	CrVI ug/l	Copper ug/l	Fe ug/l	Pb ug/l
All Seasons	5.00	10.60	0.10	1.10	1.10	3.00	23.1	1.10

Dissolved Metals	Hg ug/l	Ni ug/l	Se ug/l	Ag ug/l	Zn ug/l	Boron ug/l	
All Seasons	0.0000	2.50	1.30	0.30	11.80	10.0	* 1/2 MDL

Projected Discharge Information

Season	Flow, MGD	Temp.	TDS mg/l	TDS tons/day
Summer	1.63000	20.0	500.00	3.4
Fall	1.63000	15.0	500.00	3.4
Winter	1.63000	5.0	500.00	3.4
Spring	1.63000	10.0	500.00	3.4

All model numerical inputs, intermediate calculations, outputs and graphs are available for discussion, inspection and copy at the Division of Water Quality.

IX. Effluent Limitations

Current State water quality standards are required to be met under a variety of conditions including in-stream flows targeted to the 7-day, 10-year low flow (R317-2-9).

Other conditions used in the modeling effort coincide with the environmental conditions expected at low stream flows.

Effluent Limitation for Flow based upon Water Quality Standards

In-stream criteria of downstream segments will be met with an effluent flow maximum value as follows:

Season	Daily Average	
Summer	1.630 MGD	2.522 cfs
Fall	1.630 MGD	2.522 cfs
Winter	1.630 MGD	2.522 cfs
Spring	1.630 MGD	2.522 cfs

Flow Requirement or Loading Requirement

The calculations in this wasteload analysis utilize the maximum effluent discharge flow of 1.63 MGD. If the discharger is allowed to have a flow greater than 1.63 MGD during 7Q10 conditions, and effluent limit concentrations as indicated, then water quality standards will be violated. In order to prevent this from occuring, the permit writers must include the discharge flow limititation as indicated above; or, include loading effluent limits in the permit.

Effluent Limitation for Whole Effluent Toxicity (WET) based upon WET Policy

Effluent Toxicity will not occur in downstream segements if the values below are met.

WET Requirements LC50 > 20.8% Effluent [Acute]
IC25 > 4.7% Effluent [Chronic]

Season	Receiving Water Flow (cfs)	Effluent Flow (MGD)	Effluent Flow (cfs)	Combined Flow (cfs)	Totally Mixed	Chronic IC25 % Effluent	Acute LC50 % Effluent
Summer	50.90	1.6	2.5	53.4	NO	4.7%	0.3%
Fall	22.90	1.6	2.5	25.4	NO	9.9%	0.6%
Winter	34.80	1.6	2.5	37.3	NO	6.8%	0.4%
Spring	52.00	1.6	2.5	54.5	NO	4.6%	0.3%

Effluent Limitation for Biological Oxygen Demand (30 day average BOD) based upon Water Quality Standards or Regulations

In-stream criteria of downstream segments for Dissolved Oxygen will be met with an effluent BOD limitation as follows:

Season	Concentration	
Summer	25.0 mg/l as BOD5	339.8 lbs/day
Fall	25.0 mg/l as BOD5	339.8 lbs/day
Winter	25.0 mg/l as BOD5	339.8 lbs/day
Spring	25.0 mg/l as BOD5	339.8 lbs/day

Effluent Limitation for Dissolved Oxygen (30 day average DO) based upon Water Quality Standards

In-stream criteria of downstream segments for Dissolved Oxygen will be met with an effluent D.O. limitation as follows:

Season	Concentration	
Summer	5.50	mg/l
Fall	5.50	mg/l
Winter	5.50	mg/l
Spring	5.50	mg/l

Effluent Limitation for Total Ammonia based upon Water Quality Standards

In-stream criteria of downstream segments for Total Ammonia will be met with an effluent limitation (expressed as Total Ammonia as N) as follows:

Season		Concentration		Load	
Summer	4 Day Avg. - Chronic	40.0	mg/l as N	543.5	lbs/day
	1 Hour Avg. - Acute	78.2	mg/l as N	1,062.4	lbs/day
Fall	4 Day Avg. - Chronic	29.1	mg/l as N	395.1	lbs/day
	1 Hour Avg. - Acute	59.8	mg/l as N	812.9	lbs/day
Winter	4 Day Avg. - Chronic	21.2	mg/l as N	287.6	lbs/day
	1 Hour Avg. - Acute	49.0	mg/l as N	665.3	lbs/day
Spring	4 Day Avg. - Chronic	14.2	mg/l as N	193.3	lbs/day
	1 Hour Avg. - Acute	31.2	mg/l as N	423.7	lbs/day

Acute limit calculated with an Acute Zone of Initial Dilution (ZID) to be equal to 50.%.

Effluent Limitation for Total Residual Chlorine based upon Water Quality Standards

In-stream criteria of downstream segments for Total Residual Chlorine will be met with an effluent limitation as follows:

Season		Concentration		Load	
Summer	4 Day Avg. - Chronic	0.213	mg/l	2.89	lbs/day
	1 Hour Avg. - Acute	0.201	mg/l	2.73	lbs/day
Fall	4 Day Avg. - Chronic	0.102	mg/l	1.38	lbs/day
	1 Hour Avg. - Acute	0.101	mg/l	1.37	lbs/day
Winter	4 Day Avg. - Chronic	0.149	mg/l	2.02	lbs/day
	1 Hour Avg. - Acute	0.143	mg/l	1.95	lbs/day
Spring	4 Day Avg. - Chronic	0.217	mg/l	2.95	lbs/day
	1 Hour Avg. - Acute	0.205	mg/l	2.78	lbs/day

Effluent Limitations for Total Dissolved Solids based upon Water Quality Standards

Season		Concentration		Load	
Summer	Maximum, Acute	5179.4	mg/l	35.20	tons/day
Fall	Maximum, Acute	5761.9	mg/l	39.16	tons/day
Winter	Maximum, Acute	1002.9	mg/l	6.82	tons/day
Spring	Maximum, Acute	11077.4	mg/l	75.28	tons/day

Colorado Salinity Forum Limits — Determined by Permitting Section

Effluent Limitations for Total Recoverable Metals based upon Water Quality Standards

In-stream criteria of downstream segments for Dissolved Metals will be met with an effluent limitation as follows (based upon a hardness of 395.28 mg/l):

	4 Day Average Concentration		Load		1 Hour Average Concentration		Load	
Aluminum	N/A		N/A		8,269.1	ug/l	112.4	lbs/day
Arsenic	2,963.86	ug/l	26.0	lbs/day	3,664.6	ug/l	49.8	lbs/day
Cadmium	48.09	ug/l	0.4	lbs/day	79.9	ug/l	1.1	lbs/day
Chromium III	5,605.21	ug/l	49.2	lbs/day	61,635.9	ug/l	837.8	lbs/day
Chromium VI	210.84	ug/l	1.9	lbs/day	166.4	ug/l	2.3	lbs/day
Copper	579.07	ug/l	5.1	lbs/day	536.7	ug/l	7.3	lbs/day
Iron	N/A		N/A		10,859.6	ug/l	147.6	lbs/day
Lead	365.54	ug/l	3.2	lbs/day	5,198.8	ug/l	70.7	lbs/day
Mercury	0.25	ug/l	0.0	lbs/day	26.6	ug/l	0.4	lbs/day
Nickel	3,484.49	ug/l	30.6	lbs/day	16,622.5	ug/l	226.0	lbs/day
Selenium	71.21	ug/l	0.6	lbs/day	191.0	ug/l	2.6	lbs/day
Silver	N/A	ug/l	N/A	lbs/day	443.4	ug/l	6.0	lbs/day
Zinc	7,895.97	ug/l	69.4	lbs/day	4,140.0	ug/l	56.3	lbs/day
Cyanide (free)	110.16	ug/l	1.0	lbs/day	244.0	ug/l	3.3	lbs/day

Effluent Limitations for Heat/Temperature based upon Water Quality Standards

Summer	59.4 Deg. C.	138.8 Deg. F
Fall	28.2 Deg. C.	82.7 Deg. F
Winter	32.3 Deg. C.	90.1 Deg. F
Spring	50.9 Deg. C.	123.7 Deg. F

Effluent Limitations for Organics [Pesticides] Based upon Water Quality Standards

In-stream criteria of downstream segments for Organics [Pesticides] will be met with an effluent limit as follows:

	4 Day Average			1 Hour Average		
	Concentration		Load	Concentration		Load
Aldrin				1.5E+00	ug/l	3.15E-02 lbs/day
Chlordane	4.30E-03	ug/l	5.84E-02 lbs/day	1.2E+00	ug/l	2.52E-02 lbs/day
DDT, DDE	1.00E-03	ug/l	1.36E-02 lbs/day	5.5E-01	ug/l	1.16E-02 lbs/day
Dieldrin	5.60E-02	ug/l	7.61E-01 lbs/day	2.4E-01	ug/l	5.05E-03 lbs/day
Endosulfan	5.60E-02	ug/l	7.61E-01 lbs/day	1.1E-01	ug/l	2.31E-03 lbs/day
Endrin	3.60E-02	ug/l	4.89E-01 lbs/day	8.6E-02	ug/l	1.81E-03 lbs/day
Guthion	0.00E+00	ug/l	0.00E+00 lbs/day	1.0E-02	ug/l	2.10E-04 lbs/day
Heptachlor	3.80E-03	ug/l	5.16E-02 lbs/day	2.6E-01	ug/l	5.47E-03 lbs/day
Lindane	8.00E-02	ug/l	1.09E+00 lbs/day	1.0E+00	ug/l	2.10E-02 lbs/day
Methoxychlor	0.00E+00	ug/l	0.00E+00 lbs/day	3.0E-02	ug/l	6.31E-04 lbs/day
Mirex	0.00E+00	ug/l	0.00E+00 lbs/day	1.0E-02	ug/l	2.10E-04 lbs/day
Parathion	1.30E-02	ug/l	1.77E-01 lbs/day	6.6E-02	ug/l	1.39E-03 lbs/day
PCB's	1.40E-02	ug/l	1.90E-01 lbs/day	2.0E+00	ug/l	4.21E-02 lbs/day
Pentachlorophenol	1.50E+01	ug/l	2.04E+02 lbs/day	1.9E+01	ug/l	4.00E-01 lbs/day
Toxephene	2.00E-04	ug/l	2.72E-03 lbs/day	7.3E-01	ug/l	1.54E-02 lbs/day

Effluent Targets for Pollution Indicators Based upon Water Quality Standards

In-stream criteria of downstream segments for Pollution Indicators will be met with an effluent limit as follows:

	1 Hour Average	
	Concentration	Loading
Gross Beta (pCi/l)	50.0 pCi/L	
BOD (mg/l)	5.0 mg/l	68.0 lbs/day
Nitrates as N	4.0 mg/l	54.4 lbs/day
Total Phosphorus as P	0.05 mg/l	0.7 lbs/day
Total Suspended Solids	90.0 mg/l	1223.4 lbs/day

Note: Pollution indicator targets are for information purposes only.

Effluent Limitations for Protection of Human Health [Toxics Rule]
Based upon Water Quality Standards (Most stringent of 1C or 3A & 3B as appropriate.)

In-stream criteria of downstream segments for Protection of Human Health [Toxics] will be met with an effluent limit as follows:

	Maximum Concentration	
	Concentration	**Load**
Metals		
Antimony	ug/l	lbs/day
Arsenic	ug/l	lbs/day
Asbestos	ug/l	lbs/day
Beryllium		
Cadmium		
Chromium (III)		
Chromium (VI)		
Copper	ug/l	lbs/day
Cyanide	ug/l	lbs/day
Lead		
Mercury	ug/l	lbs/day
Nickel	ug/l	lbs/day
Selenium		
Silver		
Thallium	ug/l	lbs/day
Zinc		

Metals Effluent Limitations for Protection of All Beneficial Uses
Based upon Water Quality Standards and Toxics Rule

	Class 4 Acute Agricultural ug/l	Class 3 Acute Aquatic Wildlife ug/l	Acute Toxics Drinking Water Source ug/l	Acute Toxics Wildlife ug/l	1C Acute Health Criteria ug/l	Acute Most Stringent ug/l	Class 3 Chronic Aquatic Wildlife ug/l
Aluminum						0.0	N/A
Antimony				13558.7		13558.7	
Arsenic	2118.6				0.0	2118.6	
Asbestos						0.00E+00	
Barium						0.0	
Beryllium						0.0	
Cadmium	209.8				0.0	209.8	
Chromium (III)					0.0	0.0	
Chromium (VI)	2096.3				0.0	2096.35	
Copper	4176.5					4176.5	
Cyanide		244.0	8474.2			8474.2	110.2
Iron						0.0	
Lead	2096.3				0.0	2096.3	
Mercury				3.18	0.0	3.18	
Nickel				97453.4		97453.4	
Selenium	1033.0				0.0	1033.0	
Silver					0.0	0.0	
Thallium				10.6		10.6	
Zinc						0.0	
Boron	10382.5					10382.5	

Summary Effluent Limitations for Metals [Wasteload Allocation, TMDL]
[If Acute is more stringent than Chronic, then the Chronic takes on the Acute value.]

	WLA Acute ug/l	WLA Chronic ug/l	
Aluminum	0.0	N/A	
Antimony	13558.73		
Arsenic	2118.6		Acute Controls
Asbestos	0.00E+00		
Barium			
Beryllium			
Cadmium	209.8		Acute Controls
Chromium (III)	0.0		Acute Controls
Chromium (VI)	2096.3		Acute Controls
Copper	4176.5		Acute Controls
Cyanide	8474.2	110.2	
Iron	0.0		
Lead	2096.3		Acute Controls
Mercury	3.178		Acute Controls
Nickel	97453.4		Acute Controls
Selenium	1033.0		Acute Controls
Silver	0.0	N/A	
Thallium	10.6		
Zinc	0.0		Acute Controls
Boron	10382.53		

Other Effluent Limitations are based upon R317-1.

E. coli	126.0	organisms per 100 ml

X. Antidegradation Considerations

The Utah Antidegradation Policy allows for degradation of existing quality where it is determined that such lowering of water quality is necessary to accommodate important economic or social development in the area in which the waters are protected [R317-2-3]. It has been determined that certain chemical parameters introduced by this discharge will cause an increase of the concentration of said parameters in the receiving waters. Under no conditions will the increase in concentration be allowed to interfere with existing instream water uses.

The antidegradation rules and procedures allow for modification of effluent limits less than those based strictly upon mass balance equations utilizing 100% of the assimilative capacity of the receiving water. Additional factors include considerations for "Blue-ribbon" fisheries, special recreational areas, threatened and endangered species, and drinking water sources.

An Antidegradation Level I Review was conducted on this discharge and its effect on the receiving water. Based upon that review, it has been determined that an Antidegradation Level II Review is required because this is a permit for a new facility, project, or outfall and there is increase in contaminants or increased effluent flow.

XI. Colorado River Salinity Forum Considerations

Discharges in the Colorado River Basin are required to have their discharge at a TDS loading of less than 1.00 tons/day unless certain exemptions apply. Refer to the Forum's Guidelines for additional information allowing for an exceedence of this value.
This doesn't apply to facilities that do not discharge to the Colorado River Basin.

XII. Summary Comments

The mathematical modeling and best professional judgement indicate that violations of receiving water beneficial uses with their associated water quality standards, including important down-stream segments, will not occur for the evaluated parameters of concern as discussed above if the effluent limitations indicated above are met.

XIII. Notice of UPDES Requirement

This Addendum to the Statement of Basis does not authorize any entity or party to discharge to the waters of the State of Utah. That authority is granted through a UPDES permit issued by the Utah Division of Water Quality. The numbers presented here may be changed as a function of other factors. Dischargers are strongly urged to contact the Permits Section for further information. Permit writers may utilize other information to adjust these limits and/or to determine other limits based upon best available technology and other considerations provided that the values in this wasteload analysis [TMDL] are not compromised. See special provisions in Utah Water Quality Standards for adjustments in the Total Dissolved Solids values based upon background concentration.

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ATTACHMENT 2

ADR

UTAH DEPARTMENT of ENVIRONMENTAL QUALITY
WATER QUALITY

Division of Water Quality (DWQ)
UPDES Program

UPDES Industrial Permit Application

Part I. General Information (40 CFR 122.21(j)(1) and (9))

Permit Status: ☐ Renewal ☒ New Permit

UPDES Permit No.: _____ ☒ New Permit; UPDES Permit # Not Available

Facility Name: Woods Cross Drinking Water Treatment Facility

Facility Location: 1555 S 800 W

City Woods Cross State UT Zip 84087

Facility Mailing Address: 2287 S 1200 W

City Woods Cross State UT Zip 84087

Facility Contact: Sam Christiansen **Title:** City Public Works Director

Phone Number: 801-677-1020 **Email Address:** schristiansen@woodscross.com

Name of Signatory: _____ **Title:** _____

Is the applicant the facility owner, operator or both? (check only one response.)

☐ Owner ☐ Operator ☒ Both

Indicate below any existing environmental permits. (Check all that apply and type the corresponding permit number for each.)

☐ RCRA (hazardous waste) ☐ UIC (underground injection control) ☐ PSD (air emissions)

☐ Nonattainment program (CAA) ☐ NESHAPs (CAA) ☐ Dredge or fill (CWA Section 404)

☐ Other (specify) _____

Nature of Business CFR (40 CFR 122.21(f)(8))

Describe the nature of your business

The Woods Cross Drinking Water Treatment Facility uses Granular Activated Carbon (GAC) as part of their treatment system. The GAC beds must be flushed when new GAC is installed. This permit application pertains to the discharge from flushing the GAC beds once the new GAC media is installed.

UTAH DEPARTMENT of ENVIRONMENTAL QUALITY
WATER QUALITY

Division of Water Quality (DWQ)
UPDES Program

UPDES Industrial Permit Application

Part II. Facility Information

Design and Actual Flow Rates

Provide design and actual flow rates in designated spaces.

Maximum Design Flow Rate	
	mgd

Annual Average Flow Rates (Actual) 1131 gpm					
Five Years Ago		**Four Years Ago**		**Three Years Ago**	
	mgd		mgd		mgd
Two Years Ago		**Last Year**		**Current Year**	
	mgd		mgd		mgd

Maximum Daily Flow Rates (Actual)					
Five Years Ago		**Four Years Ago**		**Three Years Ago**	
	mgd		mgd		mgd
Two Years Ago		**Last Year**		**Current Year**	
	mgd		mgd		mgd

Describe the treatment for each outfall*

	Outfall Number	1: GAC backwash	**Outfall Number**		**Outfall Number**	
Level of Treatment						
Primary	Treatment Unit	Settling pond	Treatment Unit		Treatment Unit	
	Size		Size		Size	
	Flow rate		Flow rate		Flow rate	
	Retention time	2+ hours	Retention time		Retention time	
	Other		Other		Other	
Equivalent to secondary	Treatment Unit		Treatment Unit		Treatment Unit	
	Size		Size		Size	
	Flow rate		Flow rate		Flow rate	
	Retention time		Retention time		Retention time	
	Other		Other		Other	

UPDES Industrial Permit Application

Part II. Facility Information *continued*

Describe the treatment for each outfall* *continued*

	Outfall #		**Outfall #**		**Outfall #**	
Secondary	Treatment Unit		Treatment Unit		Treatment Unit	
	Size		Size		Size	
	Flow rate		Flow rate		Flow rate	
	Retention time		Retention time		Retention time	
	Other		Other		Other	
Advanced	Treatment Unit		Treatment Unit		Treatment Unit	
	Size		Size		Size	
	Flow rate		Flow rate		Flow rate	
	Retention time		Retention time		Retention time	
	Other		Other		Other	
Other (specify)	Treatment Unit		Treatment Unit		Treatment Unit	
	Size		Size		Size	
	Flow rate		Flow rate		Flow rate	
	Retention time		Retention time		Retention time	
	Other		Other		Other	

* The data can be entered in the section above or an excel spreadsheet. Attached additional sheets if needed.

Production

Outfall Number	**Operation, Product, or Material**	**Quantity per Day**	**Unit of Measure**
1	Backwash of new GAC media	1131 gpm x 20 min x 2 vessels; approximately 50,000 gallons	gallons

UPDES Industrial Permit Application

Part II. Facility Information *continued*

BLUEPRINT: Attach a line drawing that shows the water flow through your facility with a water balance.

☒ Line Drawing/Blueprint Attached

MAP: Attach a USGS topographic map or aerial photo extending one mile beyond the property boundaries of the site, the facility or activity boundaries, any treatment area(s), outfall(s), major drainage patterns, and the receiving surface waters stated above.

☒ Map Attached

Are improvements to the facility scheduled?

☐ YES If YES, explain below.

☐ NO If NO, Skip to Part III

Briefly list and describe the schedule improvements.

1.	
2.	
3.	
4.	

Provide scheduled or actual dates of completion for improvements.

Scheduled or Actual Dates of Completion for Improvements

	Scheduled Improvement (from above)	**Affected Outfalls** (list outfall number)	**Begin Construction** (MM/DD/YYYY)	**End Construction** (MM/DD/YYYY)	**Begin Discharge** (MM/DD/YYYY)	**Attainment of Operational Level** (MM/DD/YYYY)
1.						
2.						
3.						
4.						

UTAH DEPARTMENT of ENVIRONMENTAL QUALITY
WATER QUALITY

Division of Water Quality (DWQ)
UPDES Program

UPDES Industrial Permit Application

Part III. Sampling Information

Provide all parameter sampling data with analytical results, reporting limit and any laboratory flags on an Excel or similar spreadsheet. *An Excel Spreadsheet template may be provided upon request.*

Has WET testing been conducted during the last 5 years? ☐ YES ☐ NO

Indicate the acute and chronic WET tests (PASS or FAIL) results for the past 5 years. If no WET testing for the quarter, then leave blank (e.g., for semi-annual or annual testing or missed testing events).

Year	Outfall No. _____				Outfall No. _____				Outfall No. _____			
	Acute		Chronic		Acute		Chronic		Acute		Chronic	
	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL
	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL
	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL
	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL
	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL
	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL
	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL
	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL
	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL
	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL
	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL
	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL
	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL
	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL
	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL
	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL
	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL	Qtr 1	☐ PASS ☐ FAIL
	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL	Qtr 2	☐ PASS ☐ FAIL
	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL	Qtr 3	☐ PASS ☐ FAIL
	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL	Qtr 4	☐ PASS ☐ FAIL
Describe any cause(s) of toxicity:												
Were the above WET analysis submitted to Utah DWQ? ☐ YES ☐ NO												

UPDES Industrial Permit Application

Part IV. Compliance Information

Has the facility had and parameter exceedances over the past five years? ☐ YES ☐ NO

If Yes, provide the below information:

Parameter	Exceedance	Month/Year	Cause

UPDES Industrial Permit Application

Part IV. Compliance Information *continued*

Facility monitoring data.

Please provide the past **five years** of all parameters required to be monitored in the UPDES permit. The data can be entered in the section below or an excel spreadsheet. Attached additional sheets if needed.

Month	Year	Parameter	Min	Max	Avg	MDL/RL*
		Chlorine				
		pH				
		TSS				
		TDS				

*MDL/RL is the analysis method detection limit or reporting limit located on the laboratory analysis report.

UTAH DEPARTMENT of ENVIRONMENTAL QUALITY
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Part V. Outfalls and Receiving Water(s)

Provide the latitude and longitude to the nearest second for each dewatering outfall. The specified location should be after all treatment and before release to the receiving water. Provide the name of the initial receiving water. If the initial receiving water is unnamed, please also indicate the closed named drainage the receiving water flows into (i.e. unnamed tributary of City Creek). Attach additional sheets if necessary for more outfalls.

Each outfall to a different receiving water segment is subject to additional application fees and annual fees.

Outfall No.	Average daily flow rate	Latitude	Longitude	Receiving Surface Waters (Name)
1	mgd	40 O 54 ‘ 0.44 “	-111 O 56 ‘ 6.55 “	State Canal
	mgd	O ‘ “	O ‘ “	
	mgd	O ‘ “	O ‘ “	

Do any of the outfalls described above have a season or periodic discharges?

■ YES ☐ NO

If so, provide the following information for each applicable outfall.

	Outfall No.	1	Outfall No.		Outfall No.	
Number of times per year discharges occurs	less than 1					
Average duration of each discharge (specify units)	2 hours					
Average flow of each discharge	1.63	mgd		mgd		mgd
Months in which discharge occurs	August					

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Part VI. Effluent and Intake Characteristics

Table A.
Conventional and Non-Conventional Pollutants

Are you requesting a waiver for one or more pollutants listed Table A for any of your outfalls?
☐ YES ☐ NO

If yes, indicate the applicable outfalls below. Provide a written waiver request and other required information with the application.

Outfall Number		Outfall Number		Outfall Number	

Have you completed monitoring for all Table A pollutants at each of your outfalls for which a waiver has not been requested and attached the results to this application? Not Appplicable
☒ YES ☐ NO; a waiver has been requested for all pollutants at all outfalls

Table B.
Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants

Do any of the facility's processes that contribute wastewater fall into one or more of the primary industry categories listed in Appendix A?
☐ YES ☐ NO ☐ Not applicable

Have you checked "Testing Required" for all toxic metals, cyanide, and total phenols in Section 1 of Table B?
☐ YES ☐ NO

List the applicable primary industry categories and check the boxes indicating the required Gas Chromatography/Mass Spectrometry (GS/MS) Fraction(s) identified in Appendix A.

Primary Industry Category	Required Gas Chromatography/Mass Spectrometry (GS/MS) Fraction(s)
	☐ Volatile ☐ Acid ☐ Base/Neutral ☐ Pesticide
	☐ Volatile ☐ Acid ☐ Base/Neutral ☐ Pesticide
	☐ Volatile ☐ Acid ☐ Base/Neutral ☐ Pesticide

Have you checked "Testing Required" for all required pollutants in Sections 2 through 5 of Table B for each of the GC/MS fractions?
☐ YES ☐ NO

Have you checked "Believe Present" or Believed Absent" for all pollutants listed in Sections 1 through 5 of Table B where testing is not required?
☐ YES ☐ NO

Have you provided (1) quantitative data for those Section 1, Table B, pollutants for which you have indicated testing is required or (2) quantitative data or other required information for those Section 1, Table B, pollutants that you have indicated are "Believe Present" in your discharge?
☐ YES ☐ NO

Have you provided (1) quantitative data for those Sections 2 through 5, Table B, pollutants for which you have determined testing is required or (2) quantitative data or an explanation for those Sections 2 through 5, Table B, pollutants you have indicated are "Believed Present" in your discharge?
☐ YES ☐ NO

UPDES Industrial Permit Application

Part VI. Effluent and Intake Characteristics *continued*

Table C.
Certain Conventional and Non-Conventional Pollutants

Have you indicated whether pollutants are "Believed Present" or "Believed Absent" for all pollutants listed on Table C for all outfalls?

☐ YES ☐ NO

Have you completed Table C by providing (1) quantitative data for those pollutants that are limited either directly or indirectly in an Effluent Limitation Guidelines and/or (2) quantitative data or an explanation for those pollutants for which you have indicated "Believe Present"?

☐ YES ☐ NO

Table D.
Certain Hazardous Substances and Asbestos

Have you indicated whether pollutants are "Believed Present" or "Believed Absent" for all pollutants listed on Table D for all outfalls?

☐ YES ☐ NO

Have you completed Table D by (1) describing the reasons the applicable pollutants are expected to be discharged and (2) by providing quantitative data, if available?

☐ YES ☐ NO

Table E.
2,3,7,8-Tetrachlorodibenzo-p-Dioxin (2,3,7,8-TCDD)

Does the facility use or manufacture one or more of the 2,3,7,8-TCDD congeners listed below:

- ☐ 2,4,5-trichlorophenoxy acetic acid (2,4,5-T)
- ☐ 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP)
- ☐ 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloro-propionate (Erbon)
- ☐ 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel)
- ☐ 2,4,5,-trichlorophenol (TCP)
- ☐ hexachlorophene (HCP).
- ☐ Or do you know of have reason to believe that TCDD is or may be present in the effluent?

☐ YES, Complete Table E ■ NO, Skip to Part VII

Have you completed Table E by reporting qualitative data for TCDD?

☐ YES ☐ NO

Were any of the analyses reported in this section performed by a contract laboratory or consulting firm?

☐ YES ■ NO, Skip to Part VII

Provide information for each contract laboratory or consulting firm below.

	Laboratory Number 1	Laboratory Number 2	Laboratory Number 3
Name of laboratory/firm			
Laboratory address			
Phone Number			
Pollutant(s) analyzed			

UPDES Industrial Permit Application

Part VII. Used or Manufactured Toxics

Is any pollutant listed in Table B a substance or a component of a substance used or manufactured at your facility as an intermediate or final product or byproduct?

☐ YES ■ NO, Skip to Part VIII

List the pollutants below.

1.	4.	7.
2.	5.	8.
3.	6.	9.

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Part VIII. Biosolids Information (If Not Applicable, Skip to Part IX.)

Was the Biosolids Annual Report submitted? ☐ YES ☐ NO

☐ Attach a Biosolids Management Plan with application

Serve Connections? _____

Provide the total dry metric tons per the latest 365-day period of sewage sludge generated, treated, used and disposed of:

Practice	Dry Metric Tons per 365-day Period
Amount generated at the facility	
Amount treated at the facility	
Amount used (i.e., received from offsite) at the facility	
Amount disposed of at the facility	

Treatment Provided at Your Facility

Identify the treatment process(es) used at your facility to reduce pathogens in sewage sludge

- ☐ Preliminary operations (e.g., sludge grinding and degritting)
- ☐ Stabilization
- ☐ Composting
- ☐ Disinfection
- ☐ Heat drying
- ☐ Methane or biogas capture and recovery
- ☐ Thickening (concentration)
- ☐ Anaerobic digestion
- ☐ Conditioning
- ☐ Dewatering (e.g. centrifugation, sludge drying beds, sludge lagoons)
- ☐ Thermal reduction

Sewage Sludge Disposal Method

Land Application of Bulk Sewage Sludge

Is sewage sludge form your facility applied to the land? ☐ YES ☐ NO If No, Skip to next section

Total dry metric tons per 365-day period of sewage sludge applied to all land sites:

Surface Disposal

Is sewage sludge from your facility placed on a surface disposal site?

☐ YES ☐ NO If No, Skip to next section

Total dry metric tons of sewage sludge from your facility placed on all surface disposal sites per 365-day period: _____

Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?

☐ YES ☐ NO If No, complete the below information

Surface disposal site *you do not operate*

Site name _____

Mailing address _____

City _____ State _____ Zip _____

Contact Name _____ Title _____

Phone Number _____ Email Address _____

UPDES Industrial Permit Application

Part VIII. Bisolids Information *continued*

Incineration

Is sewage sludge from your facility fired in a sewage sludge incinerator?
☐ YES ☐ NO If No, Skip to next section

Total dry metric tons of sewage sludge from your facility fired in all sewage sludge incinerators per 365-day period: _____

Do you own or operate all sewage sludge incinerators in which sewage sludge from facility is fired?
☐ YES ☐ NO If No, complete the below information

Incinerator location *you do not operate*

Site name _____

Mailing address _____

City _____ State _____ Zip

Contact Name _____ Title _____

Phone Number _____ Email Address _____

Disposal in a Municipal Solid Waste Landfill

Is sewage sludge from your facility placed on a municipal solid waste landfill?
☐ YES ☐ NO If No, Skip to next section

Total dry metric tons of sewage sludge from your facility placed in this municipal solid waste landfill per 365-day period: _____

Do you own or operate the municipal solid waste landfill in which sewage sludge is disposed?
☐ YES ☐ NO If No, complete the below information

Municipal Solid Waste Landfill *you do not operate*

Site name _____

Mailing address _____

City _____ State _____ Zip _____

Contact Name _____ Title _____

Phone Number _____ Email Address _____

UPDES Industrial Permit Application

Part IX. Reuse Information (If Not Applicable, skip to Part X.)

Is wastewater effluent directly applied to land?
☐ YES ☐ NO If YES, complete the below information.

Land Application Site and Discharge Data

Location	Size	Average Daily Volume Applied	How often
	acres	gpd	☐ Seasonal ☐ Continuous ☐ Intermittent
	acres	gpd	☐ Seasonal ☐ Continuous ☐ Intermittent
	acres	gpd	☐ Seasonal ☐ Continuous ☐ Intermittent

Seasonal land application.

Indicate months of seasonal land application

☐ January	☐ April	☐ July	☐ October
☐ February	☐ May	☐ August	☐ November
☐ March	☐ June	☐ September	☐ December

Where is the Reuse water distributed

- ☐ Residential irrigation
- ☐ Urban uses
  - ○ Non-residential landscape irrigation
  - ○ Golf course irrigation
  - ○ Toilet flushing
  - ○ Fire protection
- ☐ Irrigation of food crops (direct contact with edible part) – spray irrigation
- ☐ Irrigation of food crops *(Non direct contact with edible part) – no spray irrigation*
- ☐ Irrigation
  - ○ Sod farms
  - ○ Silviculture
  - ○ Limited access highway rights of way
  - ○ Other areas where human access is restrict or unlikely to occur
- ☐ Irrigation of animal feed crops other than pasture for milking animals
- ☐ Impoundment of wastewater where direct human contact is not allowed or is unlikely to occur
- ☐ Cooling water
- ☐ Soil compaction or duct control in construction areas
- ☐ Other

☐ **Attached an updated Reuse Project Plan**

An updated Reuse Project Plan is required during every permit renewal.

UPDES Industrial Permit Application

Part X. Antidegradation Review

The objective of antidegradation rules and policies is to protect existing high quality waters and set forth a process for determining where and how much degradation is allowable for socially and/or economically important reasons. In accordance with Utah Administrative Code (UAC R317-2-3), an antidegradation review (ADR) is a permit requirement for any project that will increase the level of pollutants in waters of the state. The rule outlines requirements for both Level I and Level II ADRs, as well as public comment procedures. This review form is intended to assist the applicant and Division of Water Quality (DWQ) staff in complying with the rule but is not a substitute for the complete rule in R317-2-3.5. Additional details can be found in the *Utah Antidegradation Implementation Guidance* and relevant sections of the guidance are cited in this review form.

ADRs should be among the first steps of an application for a UPDES permit because the review helps establish treatment expectations. The level of effort and amount of information required for the ADR depends on the nature of the project and the characteristics of the receiving water. To avoid unnecessary delays in permit issuance, DWQ recommends that the process be initiated at least one year prior to the date a final approved permit is required.

DWQ will determine if the project will impair beneficial uses (Level I ADR) using information provided by the applicant and whether a Level II ADR is required. The applicant is responsible for conducting the Level II ADR. For the permit to be approved, the Level II ADR must document that all feasible measures have been undertaken to minimize pollution for socially, environmentally or economically beneficial projects resulting in an increase in pollution to waters of the state.

For permit requiring a Level II ADR, this antidegradation form must be completed and approved by DWQ before any UPDES permit can be issued. Typically, the ADR form is completed in an iterative manner in consultation with DWQ. The applicant should first complete the statement of social, environmental and economic importance (SEEI) in Section C and determine the parameters of concern (POCs) in Section D. Once the POCs are agreed upon by DWQ, the alternatives analysis and selection of preferred alternative Section E can be conducted based on minimizing degradation resulting from discharge of the POCs. Once the applicant and DWQ agree upon the preferred alternative, the review is considered complete, and the form is submitted to DWQ.

What are the designated uses of the receiving water (R317-2-6)? (check all that apply)

- ☐ Domestic Water Supply
- ☒ Recreation
- ☒ Aquatic Life
- ☐ Agricultural Water Supply
- ☐ Great Salt Lake

Antidegradation Category 1, 2 or 3 of receiving water? (R317-2-3.2, -3.3, and -3.4): Category 3

UPDES Industrial Permit Application

Part X. Antidegradation Review *continued*

Effluent flow reviewed: *typically, this should be the maximum daily discharge at the design capacity of the facility. Exceptions should be noted.*

The Woods Cross storm drain basin discharges into the A-1 drain, which flows into the Davis County Canal, which flows into the State Canal, which flows into the Farmington Bay Waterfowl Management Area. Maximum Flow Rate 1131 GPM

What is the application for? (Check all that apply)

- ■ A UPDES permit for a new facility, project, or outfall.
- ☐ A UPDES permit renewal with an expansion of modification of an existing wastewater treatment works.
- ☐ A UPDES permit renewal requiring limits for a pollutant not covered by the previous permit and/or an increase to existing permit limits.
- ☐ A UPDES permit renewal with no charges in facility operations.

Section B. Is a Level II ADR required?

This section of the form is intended to help applicants determine if a Level II ADR is required for specific permitted activities. In addition, the Executive Secretary/Director may require a Level II ADR for an activity with the potential for major impact on the quality of waters of the state (R317-2-3.5a.1).

B1. The UPDES permit is new or is being renewed and the proposed effluent concentration and loading limits are higher than the concentration and loading limits in the previous permit and any previous antidegradation review(s).

- ■ YES – (Proceed/Skip to **B3** of the Form)
- ☐ NO – No Level II ADR is required and there is no need to proceed further with the review questions. Continue to the Certification Statement and Signature page.

B2. Will any pollutants use assimilative capacity of the receiving water, i.e. do the pollutant concentrations in the effluent exceed those in the receiving waters at critical conditions? For most pollutants, effluent concentrations that are higher than the ambient concentrations require an antidegradation review? For a few pollutants such as dissolved oxygen, and antidegradation review is required if the effluent concentrations are less than the ambient concentrations in the receiving water. (Section 3.3.3 of Implementation Guidance)

- ☐ YES – (Proceed to **B3** of the Form)
- ☐ NO – No Level II ADR is required and there is no need to proceed further with the review questions. Continue to the Certification Statement and Signature page.

UPDES Industrial Permit Application

Part X. Antidegradation Review *continued*

B3. Are water quality impacts of the proposed project temporary and limited (Section 3.3.4 of Implementation Guidance)? Proposed projects that will have temporary and limited effects on water quality can be exempted form a Lev le II ADR.

- ☒ YES – Identify the reason used to justify this determination if B4.1 and proceed to Section G. No Level II ADR is required.
- ☐ NO – A Level II ADR is required (Proceed to Section C)

B3.1 Complete this question only if the applicant is requesting a Level II review exclusion for temporary and limited projects (See R317-2-3.5(b)(3) and R317-2-3.5(b)(4)). For projects requesting a temporary and limited exclusion please indicate the factor(s) used to justify this determination (check all that apply and provide details as appropriate) (Section 3.3.4 of Implementation Guidance):

- ☒ Water quality impacts will be temporary and related exclusively to sediment or turbidity and fish spawning will not be impaired.

Factors to be considered in determining whether water quality impacts will be temporary and limited:

a) The length of time during which water quality will be lowered:	1x 2hours every 5 year
b) The perfect change in ambient concentrations of pollutants:	
c) Pollutants affected:	TSS
d) Likelihood for long-term water quality benefits:	Additional water to GSL
e) Potential for any residual long-term influences on existing uses:	
f) Impairment of fish spawning, survival and development of aquatic fauna excluding fish removal efforts:	
Additional justification, as needed:	

UPDES Industrial Permit Application

Part X. Antidegradation Review *continued*

Level II ADR

Section C, D, E, and F of the form constitute the Level II ADR Review. The applicant must provide as much detail as necessary for DWQ to perform the antidegradation review. Questions are provided for the convenience of applicants; however, for more complex permits it may be more effective to provide the required information in a separate report. Applicants that prefer a separate report should record the report name here and proceed to Section G of the form.

Option Report Name: _____

Section C. Is the degradation from the project socially and economically necessary to accommodate important social or economic development in the area in which the waters are located? *The applicant must provide as much detail as necessary for DWQ to concur that the project is socially and economically necessary when answering the questions in the section. More information is available in Section 6.2 of the Implementation Guidance.*

C1. Describe the social and economic benefits that would be realized through the proposed project, including the number and nature of jobs created and anticipated tax revenues.

This Project is for a Culinary Drinking Water Treatment Plant

C2. Describe any environmental benefits to be realized through implementation of the proposed project.

Provides safe clean drinking water to the residents of Woods Cross

C3. Describe any social and economic losses that may result from the project, including impacts to recreation or commercial development.

If carbon is not refreshed and backwashed, it would cause the treated pollutant to exceed the drinking water limit for residential and commercial use.

C4. Summarize any supporting information from the affected communities on preserving assimilative capacity to support future growth and development.

This is a once every 4 - 5 year discharge. It will basically have no impact on assimilative capacity.

UPDES Industrial Permit Application

Part X. Antidegradation Review *continued*

C5. Please describe any structures or equipment associated with the project that will be placed within or adjacent to the receiving water.

None

C6. Will the discharge potentially impact a drinking water source, e.g., Class 1C waters? Depending upon the locations of the discharge and its proximity to downstream drinking water diversions, additional treatment or more stringent effluent limits or additional monitoring, beyond that which may otherwise be required to meet minimum technology standards or in stream water quality standards, may be required by the Director in order to adequately protect public health and the environment (R317-2-3.5 d.).

☐ YES
☐ NO

Section D. Identify and rank (from increasing to decreasing potential threat to designated uses) the parameters of concern. *Parameters of concern are parameters in the effluent at concentrations greater than ambient concentrations in the receiving water. The applicant is responsible for identifying parameter concentrations in the effluent and DWQ will provide parameter concentrations for the receiving water. More information is available in Section 3.3.3 of the Implementation Guidance.*

Parameters of Concern:

Rank	Pollutant	Ambient Concentration	Effluent Concentration
1.	TSS		
2.	Chlorine		
3.	Dissolved Oxygen		
4.			
5.			

UPDES Industrial Permit Application

Part X. Antidegradation Review *continued*

Pollutants Evaluated that are not Considered Parameters of Concern:

Pollutant	Ambient Concentration	Effluent Concentration	Justification
1. TDS			
2.			
3.			
4.			
5.			

Section E. Alternative Analysis Requirements of Level II Antidegradation Review. *Level II ADRs require the applicant to determine whether there are feasible less-degrading alternatives to the proposed project. More information is available in Section 5.5 and 5.6 of the Implementation Guidance.*

E1. The UPDES permit is being renewed without any changes to flow or concentrations. Alternative treatment and discharge options including changes to operations and maintenance were considered and compared to the current processes. NO economically feasible treatment or discharge alternatives were identified that were not previously considered for any previous antigradation review(s).

☐ YES – (Proceed to Section F)
☒ NO or Does Not Apply (Proceed to E2)

E2. Attach as an appendix to this form a report that describes that following factors for all alternative treatment options (see 1) a technical descriptions of the treatment process, including construction costs and continued operation and maintenance expenses, 2) the mass and concentration of discharge constituents, and 3) a description of the reliability of the system, including the frequency where recurring operation and maintenance may lead to temporary increases in discharged pollutants. Most of this information is typically available from a Facility Plan, if available.

Report Name: _____

E3. Describe the proposed method and cost of the baseline treatment alternative. The baseline treatment alternative is the minimum treatment required to meet water quality based effluent limits (WQBEL) as determined by the preliminary or final wasteload analysis (WLC) and any secondary or categorical effluent limits.

None for E2. There is not another alternative for the City to remove contaminants in the Drinking water supply of Wood Cross City. The contaminant removed is removed by the Activated Carbon, and the carbon is exchanged when depleted. Storm Drain outflow from the treatment plant does not convey the contaminant removed by the carbon. The sanitary sewer district, South Davis Sewer District, can not receive the volume of water and the large flow of water without negatively impacting their treatment process.

UPDES Industrial Permit Application

Part X. Antidegradation Review *continued*

E4. Were any of the following alternatives feasible and affordable?

Alternative	Feasible	Reason Not Feasible/Affordable
Pollutant Trading	☐ YES ☐ NO	
Water Recycling/Reuse	☐ YES ☐ NO	
Land Application	☐ YES ☐ NO	
Connection to Other Facilities	☐ YES ☐ NO	
Upgrade to Existing Facility	☐ YES ☐ NO	
Total Containment	☐ YES ☐ NO	
Improved O&M of Existing Systems	☐ YES ☐ NO	
Seasonal or Controlled Discharge	☐ YES ☐ NO	
New Construction	☐ YES ☐ NO	
No Discharge	☐ YES ☐ NO	

E5. From the applicant's perspective, what is the preferred treatment option?

We have to do this infrequently, 4 - 5 years. The proposed treatment option minimally impacts the discharge of the treatment plant into the storm drain system by following an established Standard Operating Procedure for a Carbon Exchange/Refresh. This SOP is to let the TSS settle in a holding basin and decant off the water that is below the TSS requirement, meeting the requirements of this requested permit. Solids removed from the settling, is disposed to a proper sanitary landfill.
South Davis Sewer District, can not receive the volume of water and the large flow of water without negatively impacting their treatment process.

UPDES Industrial Permit Application

Part X. Antidegradation Review *continued*

E6. Is the preferred option also the least polluting feasible alternative?

☒ YES ☐ NO

If No, what were less degrading feasible alternative(s)?

If No, provide a summary of the justification for not selecting the least polluting feasible alternative and if appropriate, provide a more detailed justification as an attachment.

Section F. Optional Information

F1. Does the applicant want to conduct optional public review(s) in addition to the mandatory public review? Level II ADRs are public noticed for a thirty day comment period. More information is available in Section 3.7.1 of the Implementation Guidance.

☐ YES ☐ NO

F2. Does the project include an optional mitigation plan to compensate for the proposed water quality degradation?

☐ YES ☐ NO

Report Name: _____

UTAH DEPARTMENT of ENVIRONMENTAL QUALITY
WATER QUALITY

Division of Water Quality (DWQ)
UPDES Program

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Part XI. Certification Statement and Signature

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with system designed to assure that quailed personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment of knowing violations.

Sam Christiansen		Public Works Director	3/25/2026
PRINT NAME of Signatory Authority	**Signature**	**Title**	**Date**

The Division of Water Quality may request addition information.

Important: The UPDES Permit Application will not be considered complete unless you answer every question. If an item does not apply to you, enter "Not Applicable" to show that you considered the question.

The UPDES Permit Application, must be signed as follows:

1) For a corporation, a responsible corporate officer shall sign the NOT, a responsible corporate officer means:
   a. A President, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or
   b. The manager of one or more manufacturing, production, or operating facilities, if
      i. The manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental statutes and regulations:
      ii. The manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and
      iii. Authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
2) For a partnership of sole proprietorship, the general partner or the proprietor, respectively; or
3) For a municipality, state or other public agency, either a principal executive officer or ranking elected official shall sign the application; in this subsection, a principal executive officer of any agency means;
   a. The chief executive officer of the agency; or
   b. A senior executive officer having responsibility for the overall operations of a principal geographic unit or division of the agency.

Where to File the UPDES Permit Application form:

Please submit the original form with a signature in ink to the below address. Remember to retrain a copy for your records.

UPDES sent by mail:

Division of Water Quality
195 North 1950 West
PO Box 144870
Salt Lake City, UT 84114-4870

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UTAH DEPARTMENT of ENVIRONMENTAL QUALITY
WATER QUALITY

Division of Water Quality (DWQ)
UPDES Program

UPDES Industrial Permit Application

Appendix A. Testing Requirements for Organic Toxic Pollutants Industry Categories*

	Industry Category	Volatile	Gas Chromatography/Mass Spectrometry (GS/MS) Fraction(s)†		Pesticide
			Acid	Base/Neutral	
1.	Adhesives and sealants	X	X	X	☐
2.	Aluminum forming	X	X	X	☐
3.	Auto and other laundries	X	X	X	X
4.	Battery manufacturing	X	☐	X	☐
5.	Coal mining	☐	☐	☐	☐
6.	Coil coating	X	X	X	☐
7.	Copper forming	X	X	X	☐
8.	Electric and electronic compounds	X	X	X	X
9.	Electroplating	X	X	X	☐
10.	Explosives manufacturing	☐	X	X	☐
11.	Foundries	X	X	X	☐
12.	Gum and wood chemicals (all subparts except D and F)	X	X	☐	☐
13.	Gum and wood chemicals, Subpart D (tall oil rosin)	X	X	X	☐
14.	Gum and wood chemicals, Subpart F (rosin-based derivatives)	X	X	X	☐
15.	Inorganic chemicals manufacturing	X	X	X	☐
16.	Iron and steel manufacturing	X	X	X	☐
17.	Leather tanning and finishing	X	X	X	☐
18.	Mechanical products manufacturing	X	X	X	☐
19.	Nonferrous metals manufacturing	X	X	X	X
20.	Ore mining, Subpart B (base and precious metals)	☐	X	☐	☐
21.	Organic chemicals manufacturing	X	X	X	X
22.	Paint and ink formulation	X	X	X	☐
23.	Pesticides	X	X	X	X
24.	Petroleum refining	X	☐	☐	☐
25.	Pharmaceutical preparations	X	X	X	☐
26.	Photographic equipment and supplies	X	X	X	☐
27.	Plastic and synthetic materials manufacturing	X	X	X	X
28.	Plastic processing	X	☐	☐	☐
29.	Printing and publishing	X	X	X	X
30.	Pulp and paperboard mills	X	X	X	X
31.	Rubber processing	X	X	X	☐
32.	Soap and detergent manufacturing	X	X	X	☐
33.	Steam electric power plants	X	X	☐	☐
34.	Textile mills (except Subpart C, Greige Mills)	X	X	X	☐
35.	Timber products processing	X	X	X	X

Key

* See note at conclusion of 40 CFR 122, Appendix D (1983) for explanation of effect of suspensions on testing requirements for primary industry categories

† The pollutants in each fraction are listed in Table B

X Testing is required

☐ Testing is not required

UTAH DEPARTMENT of ENVIRONMENTAL QUALITY
WATER QUALITY

UPDES General Permit for Drinking Water Treatment Plants Permit Number UTG640000

NOI

Notice of Intent (NOI)
for Coverage Under the
UPDES General Permit for Drinking Water Permit Number UTG640000

Before completing this form, the applicant needs to read the Drinking Water Treatment Plant General Permit. (DWTP) Certification of this Notice of Intent (NOI) is certification with the requirements in the DWTP.
This NOI must be completed by the owner/operator of the Drinking Water Treatment Plant seeking coverage under the DWTP. You must print or type legibly; forms that are not legible, incomplete, or unsigned will be returned. You must maintain a copy of the completed NOI form for your records.

Part I. Application Status *(check one)*

☐ New – No prior authorization or authorization request for this project/activity

☐ Resubmitted - UPDES Permit Coverage No. **UTG64** ____ ____ ____ _____

☒ Renewal - UPDES Permit Coverage No. **UTG64** U T G 640046

Part II. Facility Information

Facility Name: Woods Cross Drinking Water Treatment Facility

Facility Mailing Address:
Street (PO Box): 1555 S 800 W
City: Woods Cross State: UT Zip: 84087
Phone: 801-677-1020

Facility Location (if different from mailing address):
Street (PO Box): 2287 S 1200 W
City: Woods Cross
State: UT Zip: 84087

Part III. Facility Contact/Operator

Name: Sam Christiansen
Title: City Public Works Director
Phone: 801-677-1020 Email: schristiansen@woodscross.com
Additional Contacts:

Part IV. Potential Receiving Water(s) and Discharge Location(s);

Provide the name of the potential waterbody or stream that would receive the discharge, and the discharge location(s). Provide the name of the initial receiving water. If the initial receiving water is unnamed, please also indicate the closed named drainage the receiving water flows into (i.e. unnamed tributary of City Creek). If there are any impairments or TMDL's please include them here.

Waterbody: The Woods Cross Drinking Water Treatment Facility discharges into A-1 drain, which flows into the Davis County Canal, which flows to the State Surplus. Please reference attached exhibit A for discharge locations.

Is this Class 1C: No

Provide the location and a description of the discharge location(s):

The discharge location to the State Surplus Canal is located at 40.54044, -111.56655

Part V. Description of Wastewater Treatment:

Please provide a description of any wastewater treatment system and recycle/reuse that is utilized for backwash waters, dewatering, etc.

The Woods Cross Water Treatment Plant treats drinking water. Description of wastewater treatment system is not applicable. Backwash waste is generated during granular activated carbon (GAC) change out events. The backwash water is generated from four sources

1.Backwash flow: This flow comes directly from the GAC adsorbers during a backwash event. Backwash occurs when new GAC is added and the carbon is sorted and fines are removed. This type of backwash event will last approximately 30 minutes.

Backwashing can also occur if the differential pressure across the GAC adsorber becomes excessive due to fines or other material clogging the adsorber near the inlet. In that instance the backflow of water through the system is typically enough to decrease the pressure loss across the adsorber. This "bump" typically lasts less than 10 minutes.

2.Spent GAC Tanker Truck Decant Water: When spent GAC is slurried from the GAC adsorber to the waiting tanker truck; the truck's trailer has an internal filter/decant mechanism to decant the slurry water into a floor drain that is connected to Sanitary Sewer.

3.Virgin GAC Slurry Decant: As virgin GAC is slurried into the adsorbers the slurry water drains out the bottom of the adsorbers to the floor drain that is connected to Sanitary Sewer.

4.Vessel-to-Waste Water: After new GAC is installed, it is common to run a number of bed volumes of water through the adsorber to remove any GAC fines prior to going into production. This Vessel-to-Waste water needs to go to the Facility Storm Drain.

Part VI. Disposal Practices:

Please provide a description of current disposal practices for sediment and backwash sludges or other pollutant generated:

The backwash water is routed to the storm drain system using a large storm drain conveyance pipe near the DWTF. To reduce the concentration of the fines, the backwash water is detained in a stormwater detention basin. The basin has an outlet with a downward opening gate so the volume of the backwash event can be held in the basin and then decanted into the stormwater system. The backwash water, which is culinary quality water with minimal carbon fines, will go into the stormwater system pipes to the Davis County Canal. Please reference attached exhibit B for disposal locations.

The chlorine also discharges into the stormwater system. The chlorine would be neutralized quickly since these storm drain pipes are not clean. Chlorine oxidizes the cells of bacteria, viruses and other microorganisms, which are present on unclean pipes and other surfaces. Sanitary wastewater from restrooms, showers, sinks, the drinking water fountain, and floor drains at the DWTF is disposed of through the sanitary sewer system.


Exhibit A: Discharge locations
State Surplus Canal
Davis County Canal
A-1 Drain
Jordan River
West Bountiful
W 500 S
W 1500 S
W 1100 N
N 1100 W
Legacy Pkwy
Veterans Memorial Hwy
Woods Cross Water Treatm
67
68
15
93
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Exhibit B: Backwash disposal locations