Official Draft Public Notice Version **October 16, 2020**
The findings, determinations, and assertions contained in this document are not final and subject to change following the public comment period.

FACT SHEET AND STATEMENT OF BASIS
PLAIN CITY CORPORATION
RENEWAL PERMIT: DISCHARGE
UPDES PERMIT NUMBER: UT0021326
MINOR MUNICIPAL

FACILITY CONTACTS

Person Name:	Daniel Schuler
Position:	Public Works Director
Phone Number:	(901) 731-4908
Facility Name:	Plain City Corporation
Mailing and Facility Address:	4160 West 2200 North Plain City, Utah 84404
Telephone:	(901) 731-4908
Actual Address:	4160 West 2200 North

DESCRIPTION OF FACILITY

This facultative lagoon sewer system was built and came into operation in 1970 and serves the community of Plain City which is located west of Ogden in Weber County. The treatment facility consists of a comminutor, followed by a six cell facultative lagoon system with two primary cells and a total surface area of 35 acres. Disinfection is accomplished with chlorination that includes three concrete tanks that serve as mixing basins. A V-notch weir is at the outfall of the basins and is used to measure the flow. The maximum daily design discharge is 0.9 MGD and the maximum monthly design discharge is 0.6 MGD for the facility. Plain City has a population of approximately 7,000 people.

The influent enters though a head works structure with an electronic flow meter before entering the lagoon system. The lagoon system is operated in two parallel tracks with three cells each. After exiting the lagoon system the tracks are comingled into a seven acre polishing wetland and then proceeds to a chlorine contact chamber if the system is discharging. If the system is discharging, required sampling is conducted at a weir from a platform at the end of the chlorine contract chamber.

Two types of aeration systems are employed on the South track. 50 “Poo-Gloos” are installed in South track cell 2. These structures look like igloos. They are five feet high, and are six feet in diameter. They have multiple layers of surface area, with a high surface to volume area with packing material between the layers. The PVC pipe provides more media for bacteria in very small places to treat the wastewater. To accomplish this, the bacteria need a lot more oxygen, which is provided with forced air that produces massive amounts of very tiny bubbles that flow in and around the PVC pipe. This was the first system in the nation to have this system installed. In addition, the operator has installed modified aeration culverts in South track cell 1 with 154 and South track cell 3 with 13. Both the Poo-Gloos and the aeration culverts are intended to aerate the cell to increase dissolved oxygen and aid in release of volatile compounds.

SUMMARY OF CHANGES FROM PREVIOUS PERMIT

TBPEL Rule:

The Division of Water Quality (DWQ) adopted UAC R317-1-3.3, Technology-Based Phosphorus Effluent Limit (TBPEL) Rule in 2014. No TBPEL will be instituted for discharging treatment lagoons. Instead, each discharging lagoon will be evaluated to determine the current annual average total phosphorus load measured in pounds per year based on monthly average flow rates and concentrations. Absent field data to determine these loads, and in case of intermittent discharging lagoons, the phosphorus load cap will be estimated by the Director. A cap of 125% of the current annual total phosphorus load will be established and referred to as phosphorus loading cap. Once the lagoon's phosphorus loading cap has been reached, the owner of the facility will have five years to construct treatment processes or implement treatment alternatives to prevent the total phosphorus loading cap from being exceeded. The load cap shall become effective July 1, 2018.

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

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

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

In R317-1-3.3, E, 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.

The phosphorus annual loading cap is defined as

"Annual Loading Cap" is the highest allowable phosphorus loading discharged over a calendar year, calculated as the sum of all the monthly loading discharges measured during a calendar year divided by the number of monthly discharges measured during that year.

The reported monthly loading is calculated as shown here:

$$Monthly\ Mass\ Loading, \frac{lbs}{Month} = (Ave\ Flow) * (Ave\ Concetration) * \left(8.34 \frac{lbs}{gal}\right) * \left(\frac{Days\ Discharged}{Month}\right)$$

The annual total phosphorus loading:

$$Annual\ Mass\ Loading, lbs = Sum\ \left(Monthyl\ Mass\ Loading, \frac{lbs}{Month}\right)$$

Annual Total Phosphorus Loading Cap: 5,017 lbs/yr

Ammonia:

Water Quality has worked to improve our reasonable potential analysis (RP) for the inclusion of limits for parameters in the permit by using an EPA provided model. As a result of the model, more parameters may be included in the renewal permit. This permit will now contain an ammonia limit. See attached Reasonable Potential Analysis (Attachment 4) for more details.

Ammonia Compliance Schedule:

Plain City Corporation has shared with DWQ future plans to reduce ammonia concentration and load in their effluent. These future plans include updating aeration systems in the lagoon cells and working with local farmers to land apply during the growing season. DWQ has approved a three year Compliance Schedule for the maximum ammonia parameters to accommodate for implementation of these measures. In addition, by September 30, 2021, and September 30, 2022, Plain City must provide DEQ with updates completed during that year, failing to do so may jeopardize the Compliance Schedule. The interim limit will be 50% above the acute limit calculated in the Wasteload Analysis (WLA), or 21 mg/L; this determination was based on the permit writer best professional judgment in regards to adequately protecting the quality of the receiving water during the Compliance Schedule period. The final limits are based on the Wasteload Analysis. See table below for interim and final limits.

Parameter	Effluent Limitation Changes		
	Old Limit	Interim Limit (Effective from permit issuance until September 30, 2023)	Final Limit (Effective October 1, 2023)
Maximum Monthly Average Total Ammonia (as N)	None	21 mg/L; all seasons	3.9 mg/L; Summer (Jul-Sep) 6.7 mg/L; Fall (Oct-Dec) 8.8 mg/L; Winter (Jan-Mar) 6.7 mg/L; Spring (Apr-Jun)
Daily Maximum Total Ammonia (as N)	None	None	14 mg/L; all seasons

DISCHARGE

DESCRIPTION OF DISCHARGE

Plain City Corporation has been reporting self-monitoring results on Discharge Monitoring Reports on a monthly basis.

Outfall	Description of Discharge Point
001	Located at latitude 41°18'38" and longitude 112°06'05". The discharge flows into an unnamed drainage ditch, then Dix Creek, First Salt Creek, Harold S. Crane Waterfowl Management Area and finally into Willard Spur of the Great Salt Lake.

RECEIVING WATERS AND STREAM CLASSIFICATION

The discharge flows into a drainage ditch, then Dix Creek, First Salt Creek, Harold S. Crane Waterfowl Management Area and finally into Willard Spur of the Great Salt Lake. The drainage ditch is Class 2B and 3E, according to *Utah Administrative Code (UAC) R317-2-13*. The Dix Creek is Class 2B and 3D, 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 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 3E -- Severely habitat-limited waters. Narrative standards will be applied to protect these waters for aquatic wildlife.

BASIS FOR EFFLUENT LIMITATIONS

Limitations on total suspended solids (TSS), biochemical oxygen demand (BOD5), *E. coli*, pH and percent removal for BOD5 and TSS are based on current Utah Secondary Treatment Standards, UAC R317-1-3.2. The oil and grease is based on best professional judgment (BPJ). Total phosphorus is based on the calculated lagoon loading cap. Total reduced chlorine (TRC) and ammonia limits are based on WLA. The WLA is attached - it has been determined that this discharge will not cause a violation of water quality standards. An Antidegradation Level II review is not required since the Level I review shows that water quality impacts are minimal. The permittee is expected to be able to comply with these limitations.

The permit limitations are:

Parameter	Effluent Limitations *a				
	Maximum Monthly Avg	Maximum Weekly Avg	Yearly Average	Daily Minimum	Daily Maximum
Total Flow	0.6	--	--	--	0.9
BOD_5, mg/L	45	65	--	--	--
BOD_5 Min. % Removal	65	--	--	--	--
TSS, mg/L	45	65	--	--	--
TSS Min. % Removal	65	--	--	--	--
Dissolved Oxygen, mg/L	--	--	--	5.0	--
Total Ammonia (as N), *i mg/L					
Summer (Jul-Sep)	NA/ 3.9	--	--	--	21.0/ 14.0
Fall (Oct-Dec)	NA/ 6.7	--	--	--	21.0/ 14.0
Winter (Jan-Mar)	NA/ 8.8	--	--	--	21.0/ 14.0
Spring (Apr-Jun)	NA/ 6.7	--	--	--	21.0/ 14.0

TRC, mg/L Summer (Jul-Sep) Fall (Oct-Dec) Winter (Jan-Mar) Spring (Apr-Jun)	 0.736 0.242 0.159 0.242	 -- -- -- --	 -- -- -- --	 -- -- -- --	 0.893 0.294 0.193 0.294
E. coli, No./100mL	126	157	--	--	--
Total Phosphorus, lbs/yr (Final)	--	--	5,017	--	--
Oil & Grease, mg/L	--	--	--	--	10.0
pH, Standard Units	--	--	--	6.5	9

SELF-MONITORING AND REPORTING REQUIREMENTS

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

Self-Monitoring and Reporting Requirements *a			
Parameter	Frequency	Sample Type	Units
Total Flow, Influent *b, *c, *d Effluent	Continuous Continuous	Recorder Recorder	MGD MGD
BOD_5, Influent *d Effluent	Monthly Monthly	Composite Composite	mg/L mg/L
TSS, Influent *d Effluent	Monthly Monthly	Composite Composite	mg/L mg/L
E. coli	Monthly	Grab	No./100mL
pH	Monthly	Grab	SU
Total Ammonia (as N) *i	Monthly	Composite	mg/L
DO	Monthly	Grab	mg/L
TRC, mg/L, *e	Monthly	Grab	mg/L
Oil & Grease *f	Monthly	Grab	mg/L
Orthophosphate (as P), *g	Monthly	Composite	mg/L
Total Phosphorus (as P), Influent *d, *g, *h Effluent	 Monthly Monthly	 Composite Composite	 mg/L mg/L
Total Kjeldahl Nitrogen TKN (as N), Influent *d, *g, *h Effluent	 Monthly Monthly	 Composite Composite	 mg/L mg/L
Nitrate, NO3 *g, *h	Monthly	Composite	mg/L
Nitrite, NO2 *g, *h	Monthly	Composite	mg/L

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

*b Flow measurements of influent/effluent volume shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained.

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

*d In addition to monitoring the final discharge, influent samples shall be taken and analyzed for this constituent at the same frequency as required for this constituent in the discharge.

*e Analytical results less than 0.06 mg/l will 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.

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

*g These reflect changes required with the adoption of UCA R317-1-3.3, Technology-based Phosphorus Effluent Limits rule.

*h The Pollutants Of Concern (POC) will be monitored and reported (on a monthly basis by the facility on Discharge Monitoring Report, but will not have a limit associated with them /or at the end of each Calendar year of sampling for these POC's), Plain City Corporation will report the results of all sampling done for the POC. If Plain City Corporation decides to sample more frequently for these POC's, the additional data will be welcome.

*i DWQ has approved a Compliance Schedule for the maximum ammonia parameter. See table below for interim and final limits.

Parameter	Effluent Limitation Changes		
	Old Limit	Interim Limit (Effective from permit issuance until September 30, 2023)	Final Limit (Effective October 1, 2023)
Maximum Monthly Average Total Ammonia (as N)	None	21 mg/L; all seasons	3.9 mg/L; Summer (Jul-Sep) 6.7 mg/L; Fall (Oct-Dec) 8.8 mg/L; Winter (Jan-Mar) 6.7 mg/L; Spring (Apr-Jun)
Daily Maximum Total Ammonia (as N)	None	None	14 mg/L; all seasons

BIOSOLIDS

The State of Utah has adopted the 40 CFR 503 federal regulations for the disposal of sewage sludge (biosolids) by reference. However, since this facility is a lagoon, there is not any regular sludge production. Therefore 40 CFR 503 does not apply at this time. In the future, if the sludge needs to be removed from the lagoons and is disposed in some way, the Division of Water Quality must be contacted prior to the removal of the sludge to ensure that all applicable state and federal regulations are met.

STORM WATER

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

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 during the period of construction.

Information on storm water permit requirements can be found at http://stormwater.utah.gov

PRETREATMENT REQUIREMENTS

The permittee has not been designated for pretreatment program development because it does not meet conditions which necessitate a full program. The flow through the plant is less than five (5) MGD and there are no known categorical industries discharging to the treatment facility.

Although the permittee does not have to develop a State-approved pretreatment program, any wastewater discharges to the sanitary sewer are subject to Federal, State and local regulations. Pursuant to Section 307 of the Clean Water Act, the permittee shall comply with all applicable Federal General Pretreatment Regulations promulgated, found in 40 CFR 403 and the State Pretreatment Requirements found in UAC R317-8-8.

An industrial waste survey (IWS) is required of the permittee as stated in Part II of the permit. The IWS is to assess the needs of the permittee regarding pretreatment assistance. The IWS is required to be submitted within sixty (60) days after the issuance of the permit. If an industrial user begins to discharge or an existing industrial user changes their discharge the permittee must resubmit an IWS no later than sixty days following the introduction or change as stated in Part II of the permit.

It is required that the permittee submit for review any local limits that are developed to the Director for review. If local limits are developed it is required that the permittee perform an annual evaluation of the need to revise or develop technically based local limits for pollutants of concern, to implement the general and specific prohibitions *40 CFR, Part 403.5(a)* and *Part 403.5(b)*. This evaluation may indicate that present local limits are sufficiently protective, need to be revised or should be developed.

BIOMONITORING REQUIREMENTS

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

The permittee is a minor municipal facility that will be discharging a relatively small amount of effluent, in which toxicity is neither an existing concern, nor likely to be present. Also, there is not any available data to conclude that the irrigation ditch that the facility discharges to is 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 by
Danielle Lenz, Discharge
Jennifer Robinson, Pretreatment
Lonnie Shull, Biomonitoring
Lisa Stevens, Storm Water
Danielle Lenz, Reasonable Potential Analysis
Suzan Tahir, Wasteload Analysis
Utah Division of Water Quality, (801) 536-4300

PUBLIC NOTICE

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

During the public comment period provided under R317-8-6.5, any interested person may submit written comments on the draft permit and may request a public hearing, if no hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. All comments will be considered in making the final decision and shall be answered as provided in R317-8-6.12.

ADDENDUM TO FSSOB

During finalization of the Permit certain dates, spelling edits and minor language corrections were completed. Due to the nature of these changes they were not considered Major and the permit is not required to be re Public Noticed.

Responsiveness Summary

(Explain any comments received and response sent. Actual letters can be referenced, but not required to be included).

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ATTACHMENT 1

Industrial Waste Survey

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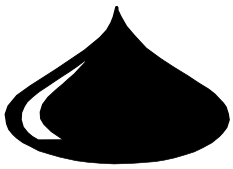
Industrial Pretreatment Wastewater Survey



Do you periodically experience any of the following treatment works problems:

foam, floaties or unusual colors
plugged collection lines caused by grease, sand, flour, etc.
discharging excessive suspended solids, even in the winter
smells unusually bad
waste treatment facility doesn't seem to be treating the waste right

Perhaps the solution to a problem like one of these may lie in investigating the types and amounts of wastewater entering the sewer system from industrial users.

An industrial user (IU) is defined as a non-domestic user discharging to the waste treatment facility which meets any of the following criteria:

1. **has a lot of process wastewater (5% of the flow at the waste treatment facility or more than 25,000 gallons per work day.)**

   Examples: Food processor, dairy, slaughterhouse, industrial laundry.

2. **is subject to Federal Categorical Pretreatment Standards**;

   Examples: metal plating, cleaning or coating of metals, blueing of metals, aluminum extruding, circuit board manufacturing, tanning animal skins, pesticide formulating or packaging, and pharmaceutical manufacturing or packaging,

3. **is a concern to the POTW.**

   Examples: septage hauler, restaurant and food service, car wash, hospital, photo lab, carpet cleaner, commercial laundry.

All users of the water treatment facility are **prohibited** from making the following types of discharges:

1. A discharge which creates a fire or explosion hazard in the collection system.

2. A discharge which creates toxic gases, vapor or fumes in the collection system.

3. A discharge of solids or thick liquids which creates flow obstructions in the collection system.

4. An acidic discharge (low pH) which causes corrosive damage to the collection system.

5. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause problems in the collection system or at the waste treatment facility.

6. Waste haulers are prohibited from discharging without permission. (No midnight dumping!)

When the solution to a sewer system problem may be found by investigating the types and amounts of wastewater entering the sewer system discharged from IUs, it's appropriate to conduct an Industrial Waste Survey.

An Industrial Waste Survey consists of:

Step 1: Identify Industrial Users

Make a list of all the commercial and industrial sewer connections.

Sources for the list:

business license, building permits, water and wastewater billing, Chamber of Commerce, newspaper, telephone book, yellow pages.

Split the list into two groups:

domestic wastewater only--no further information needed
everyone else (IUs)

Step 2: Preliminary Inspection

Go visit each IU identified on the "everybody else" list.

Fill out the **Preliminary Inspection Form** during the site visit.

Step 3: Informing the State

Please fax or send a copy of the Preliminary inspection form (both sides) to:

Jennifer Robinson

Division of Water Quality
288 North 1460 West
PO Box 144870
Salt Lake City, UT 84114-4870

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

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 wash-down **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
PO Box 144870
Salt Lake City, Utah 84114-4870

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

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

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ATTACHMENT 2

Effluent Monitoring Data

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Effluent Monitoring Data.

	Flow		pH	O & G	TRC	*E. coli*	BOD5	Ammonia	TSS
Month	Daily Max	Mon Ave		Max	Max	Ave	Max	Ave	Max
1/31/2017	0.175	0.154	8.09	0	0.38	31	16.1	4.4	15.9
2/28/2017	0.433	0.311	7.8	0	0.58	756	29.6	7.1	24
3/31/2017	0.403	0.254	8.7	0	0.28	14.6	33	3.7	12.2
4/30/2017	0.31	0.279	8.13	0	0.39	1	27.7	4.3	9.3
5/31/2017	0.275	0.212	8.635	0	0.38	3.1	30.8	3.9	11.8
6/30/2017	ND	ND	ND	ND	ND	ND	ND	ND	ND
7/31/2017	0.299	0.242	8.3	0	0.75	84	11.8	0.7	8.1
8/31/2017	0.16	0.133	8.44	0	0.66	135	19.4	0.7	11.6
9/30/2017	0.307	0.18	8.31	0	0.92	2	17.2	4.5	33.3
10/31/2017	0.516	0.224	7.84	0	0.38	2	13.5	7.5	7.9
11/30/2017	0.331	0.155	7.9	0	0.33	109	43.1	0.1	30.9
12/31/2017	0.228	0.127	7.76	0	0.375	10	30.2	3.1	8.8
1/31/2018	0.333	0.285	7.83	0	0.28	53	20.1	9.3	17.5
2/28/2018	0.289	0.215	8.3	0	0.3	157	13.6	9.2	19.1
3/31/2018	ND	ND	ND	ND	ND	ND	ND	ND	ND
4/30/2018	0.487	0.303	8.2	0	0.48	1	20.6	3.3	23.1
5/31/2018	0.417	0.296	7.81	0	1.3	63	8.16	6.2	13.3
6/30/2018	0.351	0.282	7.97	NR	2.2	24	13.6	3.9	26.1
7/31/2018	0.105	0.11725	7.47	NR	2.2	1	41.5	4.4	16
8/31/2018	0.206	0.292	8.94	0	1.3	1	8.1	0.4	104
9/30/2018	11	9	8.48	0	1.5	36	11	1.1	10.5
10/31/2018	0.624	0.4	7.99	0	1	51	8.5	1.9	20.5
11/30/2018	0.412	0.364	7.94	0	0.16	49.6	4.8	3.9	9.6
12/31/2018	0.674	0.362	8.3	0	0.22	119.9	18.8	3.3	21.2
1/31/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/28/2019	0.555	0.343	7.98	0	0.2	18	30.4	7.5	34.5
3/31/2019	0.9	0.6	8.37	0	0.16	18	18	8.9	43.7
4/30/2019	0.9	0.6	8.08	0	0.29	210	23.5	9	31.3
5/31/2019	0.547	0.409	7.74	0	0.24	46	29.6	8.8	32.3
6/30/2019	0.9	0.6	7.51	0	0.3	96	40.8	8.8	22.2
7/31/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND
8/31/2019	0.76	0.383	8.32	0	0.51	276	36	5.6	28.3
9/30/2019	0.8	0.6	8.32	0	1.4	21	35.2	5.6	28.3
10/31/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND
11/30/2019	0.663	0.386	8.23	0	0.3	1	8	10.4	5.1
12/31/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND
1/31/2020	0.595	0.445	8.27	0	0.3	1	34.4	16.3	27.8
2/29/2020	0.583	0.406	8.06	0	0.3	2	10.2	17.8	14.3
3/31/2020	0.6	0.9	8.09	0	0.3	1	12.1	23.1	16.3

ND: No discharge
NR: Not required

ATTACHMENT 3

Wasteload Analysis

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ATTACHMENT 4

Reasonable Potential Analysis

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REASONABLE POTENTIAL ANALYSIS

Since January 1, 2016, DWQ has conducted RP on all new and renewal applications received after that date. Following DWQ's September 10, 2015 Reasonable Potential Analysis Guidance (RP Guidance), RP for this permit renewal was not conducted on metals because there has been a lack of metal discharge data.

Water Quality has worked to improve our reasonable potential analysis (RP) for the inclusion of limits for parameters in the permit by using an EPA provided model. As a result of the model, more parameters may be included in the renewal permit. A Copy of the Reasonable Potential Analysis Guidance (RP Guide) is available at water Quality. There are four outcomes for the RP Analysis[1]. They are;

Outcome A: A new effluent limitation will be placed in the permit.

Outcome B: No new effluent limitation. Routine monitoring requirements will be placed or increased from what they are in the permit,

Outcome C: No new effluent limitation. Routine monitoring requirements maintained as they are in the permit,

Outcome D: No limitation or routine monitoring requirements are in the permit.

The RP model was run on ammonia using the most recent data back through the previous permit cycle (2015). This resulted in 34 data points. The results of the models are that there is acute and chronic RP at 95% confidence and 99% confidence (Outcome A from Reasonable Potential Guide).

The results of the Reasonable Potential Model are based on a number of inputs, one being the acute/chronic criterion that is taken from the WLA. The WLA uses existing data, including existing controls, pollutant presence, sensitively and dilution to help derive limits appropriate for the receiving waterbody. Other inputs include data Plain City Corporation reported on monthly Discharge Monitoring Reports (DMRs), all of which data is summarized in Attachment 2 of this document.

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

Outfall 001 RP Input/Output Summary Table

RP Procedure Output	Outfall Number: 001 Data Units: mg/L	
Parameter	Ammonia	
Distribution	Lognormal	
Reporting Limit	0.0010	
Significant Figures	2	
Maximum Reported Effluent Conc.	23.1	
Coefficient of Variation (CV)	1.6	
Acute Criterion	14.0	
Chronic Criterion	3.9 (summer)	
Confidence Interval	95	99
Projected Maximum Effluent Conc. (MEC)	32.0	90.0
RP Multiplier	1.4	3.9
RP for Acute?	YES	YES
RP for Chronic?	YES	YES

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

Outcome	A