Biological Assessment of Hurlburt Field AWTP Okaloosa County NPDES # FL0003174 Sampled May 6, 2019

Division of Environmental Assessment and Restoration
Florida Department of Environmental Protection
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Summary of Results

Rule 62-611.500(1), F.A.C., exempts natural treatment and receiving wetlands from the following general and specific water quality standards established in Chapter 62-302, F.A.C.: dissolved oxygen; nutrients; chronic toxicity; turbidity; total coliforms; biological integrity; and transparency. However, Rule 62-611.500, F.A.C., establishes alternate criteria for dissolved oxygen, nutrients, biological integrity, and chronic toxicity. Also, Rule 62-611.500(3), F.A.C, establishes additional criteria for fish and vegetation beyond the standards in Chapter 62-302, F.A.C. The Test Wetland and Control Wetland measurements for pH comply with Class III Freshwater Quality Criterion (62-302.530(52)(c)), as the pH at the Control Wetland Site is presumed indicative of natural background. The Control Wetland measurement for percent saturation dissolved oxygen was below the minimum levels for Class III Freshwater Quality Criterion (62-302.530(30)) F.A.C., although this may be a natural condition for the wetlands. The effluent had amounts of ortho-phosphate, total phosphorus, and nitrate plus nitrite that were elevated over the amounts of each detected in either Test or Control Wetland. Cadmium levels in the effluent grab sample exceeded Class III Freshwater Quality Criterion (62-302.530(15) F.A.C.). The Control Wetland iron exceeded the Class III Criterion (62-302.530(39) F.A.C.). Biological assessments of flora or fauna in the Wetland sites were not performed during this sampling event. The facility is not required to conduct Whole Effluent Toxicity testing so no bioassay tests were scheduled. The algal growth potential sample was not analyzed due to a holding time exceedance error at the laboratory.

Facility Overview

The Hurlburt Field AWTP Facility is a domestic wastewater treatment facility. A Facility Summary, including a description of the facility, summary of permit limits, and any relevant Administrative Order (AO), Consent Order (CO), and Discharge Monitoring Report (DMR) information is provided in Appendix A. Although the facility provides reclaimed water to a public access reuse system, there is not enough reuse demand yet to preclude surface water discharge, therefore effluent is continuously discharged into the wetlands of East Bay Swamp, which discharges to East Bay River, a Class III Fresh Water (Figure 1).

Methods

Effluent samples were taken as grab and composite samples from monitoring site location EFF-01 for outfall D-001. The permit specifies 16-hour flow proportioned composite samples and 24-hour composite samples were collected. The permit limit for total ammonia is for a composite sample and only a grab sample was analyzed. The flow measured during sample collection was 0.42 MGD. Chemical and biological comparisons were made between Control Wetland and Test Wetland sites located in the receiving wetlands. There was little flow at both wetland sites during sampling. No bioassay tests were scheduled. The facility is not required to conduct Whole Effluent Toxicity Testing based on being a minor facility with no prior history of effluent toxicity, pursuant to Rule 62-620.620(3)(a), F.A.C.

All field and laboratory methods followed DEP Standard Operating Procedures (see https://floridadep.gov/dear/quality-assurance/content/dep-sops and https://floridadep.gov/dear/florida-dep-laboratory/content/dep-laboratory-quality-assurance-manual-and-sops for details) and met DEP quality assurance/quality control standards (see https://floridadep.gov/dear/quality-assurance). Explanations of specific methods and measurements can be found in Appendix B.

All references to 62-302.530, F.A.C. are to the surface water quality criteria table with an effective date of 02/17/2016 and a notice identification number of 17115667.

The following were involved in this investigation: Dana Vestal (Northwest District), Nathan Mulkey (Northwest ROC), and DEP Laboratory in Tallahassee. The report was reviewed by District representatives and the Point Source Studies Review Committee (Nancy Ross and Adrienne Pennington).

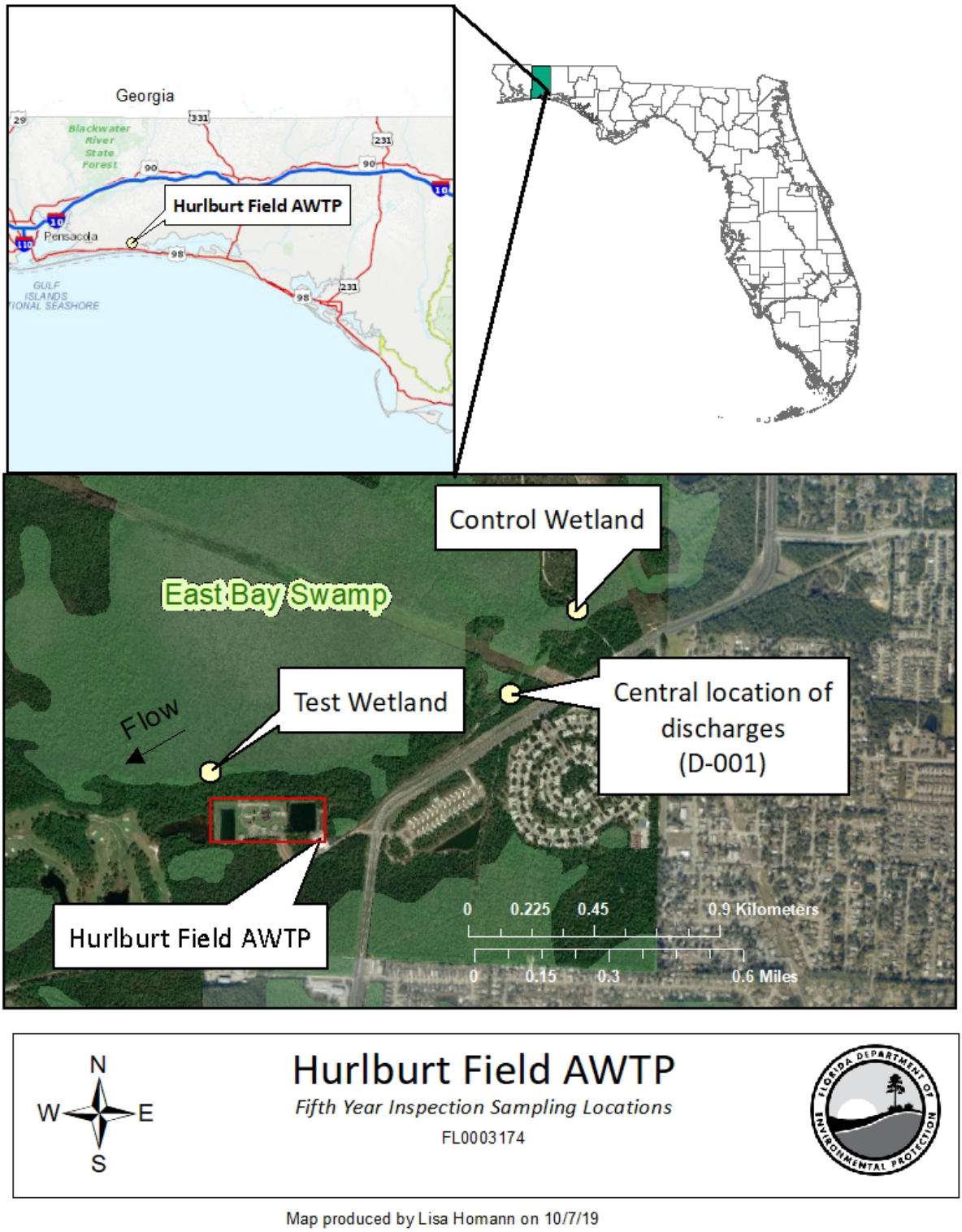


Figure 1. Map of Facility and Sampling Locations

Results

Physical and Chemical Parameters (See Table 1 and Appendices C and D)

- The Test Wetland and Control Wetland measurements for pH comply with Class III Freshwater Quality Criterion (62-302.530(52)(c)), as the pH at the Control Wetland Site is presumed indicative of natural background. The Control Wetland measurement for percent saturation dissolved oxygen was below the minimum levels for Class III Freshwater Quality Criterion (62-302.530(30)) F.A.C., although this may be a natural condition for the wetlands. Rule 62-611.500, F.A.C., establishes alternate criteria for dissolved oxygen for natural treatment and receiving wetlands.

Analytical Water Chemistry (See Table 2 and Appendix D)

- The effluent permit limit for total ammonia applies to a composite sample and only a grab sample was collected and analyzed. The effluent grab sample met the permit limit for total ammonia. All other analytes detected in the effluent grab and composite samples complied with permit limits and/or Class III Freshwater Quality Criteria (62-302.530, F.A.C).
- The effluent composite and grab samples had amounts of ortho-phosphate, total phosphorus, nitrate plus nitrite, and calculated total nitrogen that were elevated over the amounts of each detected in either the Test or Control Wetland samples. The Test and Control Wetland samples had similar levels of phosphorus, while the Test Wetland had slightly higher nitrogen levels than the Control Wetland. Chlorophyll *a* (corrected) was undetected in all samples.

Microbiology (See Table 2 and Appendix B)

- Fecal coliforms were not detected in the effluent sample and therefore complied with permit limits. *Escherichia coli* (*E. coli*) were not detected in the effluent and detected in the Test and Control Wetland samples at levels which complied with Class III Freshwater Quality Criterion (62-302.530(6)(b), F.A.C.).

Metals (See Table 3 and Appendix D)

- In the effluent composite sample, cadmium exceeded Class III Freshwater Quality Criterion (62-302.530(15), F.A.C.). All other effluent metals were detected at levels that complied with Class III Freshwater Quality Criteria (62-302.530, F.A.C.). There are no effluent permit limits for metals.
- All metals detected in the Test Wetland sample were either undetected or detected at levels that complied with Class III Freshwater Quality Criteria (62-302.530, F. A. C.).
- In the Control Wetland sample, iron exceeded the Class III Freshwater Quality Criterion (62-302.530(38), F.A.C.). All other Control Wetland sample metals were detected at levels that complied with Class III Freshwater Quality Criteria (62-302.530, F.A.C.).

Organic Constituents (See Appendix D)

- Atrazine Desethyl was detected in the effluent grab sample.

Literature Cited

Stevenson, R. J. and Bahls, L. L. 1999. Periphyton protocols. Pp. 6.1-6.22 in: Rapid bioassessment protocols for use in wadeable streams and rivers. 2nd edition. By: M. T. Barbour, J. Gerritsen, B. D. Snyder and J. B. Stribling. EPA 841-B-99-002. U. S. Environmental Protection Agency, Office of Water, Washington, D. C.

USEPA. 2000. Nutrient Criteria Technical Guidance Manual – River and Streams. EPA-822-B-00-002.

Table 1. Measured field parameters

Effluent limits, Class III Freshwater Criteria, and field parameters

Parameter	Units	Class III Criteria	Effluent Permit Limits	Effluent Composite [1]	Effluent Grab	Test Wetland	Control Wetland
Sample Depth	m	-	-	-	-	0.1	0.2
Temperature	C	-	-	4.5	-	22.7	20.7
pH	SU	6.0 - 8.5 [2]	6.0 - 8.5	7.49	7.31	5.47	5.51
Specific Conductance	umhos/cm	≤ 1,275	Report	-	-	101.5	117.4
Salinity	ppt	-	-	0 c	0 c	0.1 c	0.1 c
Dissolved Oxygen	mg/L	-	-	8.08	-	3.51	1.50
Dissolved Oxygen	% saturation	≥ 67 (Control)	-	62.5	-	40.7	16.7 e
Total Residual Chlorine	mg/L	-	≤ 0.01	< 0.002	< 0.02 [3]	-	-

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
c - Value is calculated
e- Value exceeds the Class III Water Quality Criteria or permit limits
1- Values reported recorded by facility
2- 62-302.530(52(c)) states “Shall not vary more than one unit above or below natural background of predominantly fresh waters”
3- A handheld meter was used with a minimum detection limit of 0.02 mg/L. The value was below this limit.

Table 2. Analytical water chemistry and microbiological data

Effluent limits, Class III Freshwater Criteria, and analytical water chemistry and microbiological data

Analyte	Units	Class III Criteria	Effluent Permit Limits	Effluent Composite	Effluent Grab	Test Wetland	Control Wetland
Ortho-phosphate	mg P/L	-	-	-	0.48	0.005 I	0.009 I
Total Phosphorus	mg P/L		≤ 2.0 p	0.59	0.53	0.024	0.025
Total Ammonia	mg N/L	≤ 4.47 (Test) ≤ 5.09 (Control)	≤ 4.0 p	-	0.011	0.041	0.004 I
Un-ionized Ammonia (calculated salinity)	mg NH3/L	≤ 0.02 s	-	-	-	< 0.02 c	< 0.02 c
Nitrate and Nitrite	mg N/L	-	-	1.6	1.7	0.007 I	0.004 U
Total Kjeldahl Nitrogen	mg N/L	-	-	0.44 J	0.44	0.86	0.39
Organic Nitrogen	mg N/L	-	-		0.43 c	0.82 c	0.39 c
Total Nitrogen	mg N/L		≤ 6.0 p	2 c	2.1 c	0.87 c	0.39 c
Total Organic Carbon	mg C/L	-	-	4.4	4.1	16	7.0
Chlorophyll *a* - Corrected	ug/L	-	-	-	1.6 U	1.6 U	1.6 U
Phaeophytin	ug/L	-	-	-	1.8 U	1.8 U	1.8 U
CBOD, 5 day, N - inhibited	mg/L	-	≤ 10.0 p	7.2 JV	8.1 JV	3.9 JV	4.8 AJV
Hardness	mg CaCO3/L	-	-	54.3 c	-	16 c	34.6 c
Total Suspended Solids	mg/L	-	≤ 10.0 p	2 U	2 U	4 I	4 I
Turbidity	NTU	< 29 t (Control)	-	-	0.45	1.7	2.9
Color (true)	PCU	-	-	-	2.5 U	220	75
Alkalinity	mg CaCO3/L	≥ 20	-	-	133	20	34
Chloride	mg Cl/L	-	-	-	73	15	11
Fluoride	mg F/L	≤ 10.0	-	-	0.62	0.039 I	0.035 U
Sulfate	mg SO4/L	-	-	-	30	1.4	1.6
Fecal Coliforms	cfu/100 mL	-	≤ 800 s	-	2 U	58	11 B
Escherichia coli	MPN/100 mL	≤ 410	-	-	10 U	20	31

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
c - Value is calculated

p – 16-hour flow proportioned composite
s - Single sample
t - Shall not exceed 29 NTUs above background
A - Value reported is the mean of two or more determinations
B - Results based on colony counts outside the acceptance range
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
J - Estimated value
U - Material analyzed for but not detected; value reported is the method detection limit
V - Analyte was detected in both sample and method blank

Table 3. Analytical metals data

Effluent limits, Class III Freshwater Criteria, and analytical metals data

Analyte	Units	Effluent Permit Limits	Effluent Composite Class III Criteria	Effluent Composite	Test Wetland Class III Criteria	Test Wetland	Control Wetland Class III Criteria	Control Wetland
Hardness	mg CaCO3/L	-	-	54.3 c	-	16 c	-	34.6 c
Aluminum	ug/L	-	-	64	-	200	-	41
Arsenic	ug/L	-	≤ 50	0.19 I	≤ 50	0.55	≤ 50	1.39
Cadmium	ug/L	-	≤ 0.172 b	0.289 e	≤ 0.1 b	0.020 U	≤ 0.123 b	0.020 U
Calcium	mg/L	-	-	16.8	-	5.03	-	12.0
Chromium, Total [4]	ug/L	-	≤ 52.3 b	0.40 U	≤ 28 b	0.40 U	≤ 36.1 b	0.40 U
Copper	ug/L	-	≤ 5.54 b	2.81	≤ 2.9 b	0.40 U	≤ 3.76 b	0.40 U
Iron	ug/L	-	≤ 1,000	30 U	≤ 1,000	310	≤ 1,000	1280 e
Lead	ug/L	-	≤ 1.46 b	0.20 U	≤ 0.54 b	0.24 I	≤ 0.823 b	0.20 U
Magnesium	mg/L	-	-	3.00	-	0.84	-	1.12
Nickel	ug/L	-	≤ 31.1 b	1.2 I	≤ 16 b	0.50 U	≤ 21.2 b	0.50 U
Potassium	mg/L	-	-	11.3	-	0.84 I	-	0.38 I
Selenium	ug/L	-	≤ 5.0	0.20 U	≤ 5.0	0.20 U	≤ 5.0	0.20 U
Silver	ug/L	-	≤ 0.07	0.010 U	≤ 0.07	0.010 U	≤ 0.07	0.010 U
Sodium	mg/L	-	-	96.7	-	14.9	-	9.1
Zinc	ug/L	-	≤ 71.4 b	24	≤ 37 b	5.0 U	≤ 48.7 b	5.0 U

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.

b - Value is calculated based on hardness, (62-302.530(3))

c - Value is calculated

e -Value exceeds the Class III Water Quality Criteria or permit limits

I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit

U - Material analyzed for but not detected; value reported is the method detection limit

4 - Class III Freshwater Quality Criterion (62-302.530(19)(a), F.A.C.) is for chromium-III

Appendix A. Facility Summary

State of Florida
Department of Environmental Protection
Facility Introduction & Summary

PART I: Information gathered prior to sampling event	
Prepared By: Dana Vestal	**Contact Number:** (850) 595-0659
Facility Name (as it appears on permit): Hurlburt Field AWTP	**Former Names:** Hurlburt Field AFB WWTP, Hurlburt Field AFB - WWTP
NPDES Permit Number: FL0003174	**Permit Expiration Date:** August 31, 2020
Physical Address: 301 Heritage Road, Bldg. 91500, Hurlburt Field, FL 32544-6406	
District: Northwest	**County:** Okaloosa
Function of Facility: Domestic wastewater treatment facility	
Facility Type: Domestic Wastewater	**Permitted Capacity (MGD):** 1.0 MGD AADF
Mean Flow for previous 12 months for all EXTERNAL outfalls listed in permit (list date range including months): 0.4025 MGD Annual Average to the wetlands March 2018-February 2019	
If applicable, Mean Flow for previous 12 months for REUSE outfall(s) (list date range including months): Onsite reuse 0.039 MGD Annual Average March 2018-February 2019. Part III Reuse 0.1129 MGD Annual Average March 2018-February 2019.	
Description of type of Discharge: ☒ **Continuous** ☐ **Intermittent** ☐ **Seasonal** ☐ **Rainfall Dependent** ☐ **Other, please specify:**	
Description of Sampling Location(s) - actual permit designation of permitted sampling point(s): **D-001** CAL-FLOWET – FLW-01 (Flow at V-notch weir) – FLW-03 (Flow to Reuse R-001) FLW-01 – Effluent Flow Meter at V-Notch Weir After Chlorine Contact Chamber FLW-02 – Part VII Reuse flow meter after hydro pneumatic storage tank for on-site reuse EFF-01 – V-Notch Weir Box After Chlorine Contact Chamber EFA-NBL – TRC Northern CCC for Basic Level Disinfection EFA-SBL – TRC Southern CCC for Basic Level Disinfection EFD-01 – Bottom End of Cascade Aeration EFF-02 – Bottom End of Cascade Aeration WEP-01 – Wetland Exit Point; Station 4 per Wetlands Monitoring Plan (fka WER-4) WIM-02 – Station 3 per Wetlands Monitoring Plan (fka WER-3) WIM-03 – Station 5 per Wetlands Monitoring Plan (fka WER-5) **R-001**	

FLW-03 – Total Flow to Part III Reuse at Transfer Pump Station
FLW-04 – Part III Reuse to General Service Areas at High Service Pump Station
FLW-05FWB – Flow to Fort Walton Beach GSA
CAL-HFGSA – FLW-04 (From Part III Reuse Tank) – FLW-05FWB (Flow to Ft Walton Beach GSA)
EFF-03 – V-notch weir box after CCC (for Part III monitoring)
EFF-01 – V-Notch Weir Box After Chlorine Contact Chamber
EFA-NHL – TRC Northern CCC for High Level Disinfection
EFA-SHL – TRC Southern CCC for High Level Disinfection
EFB-03 – Sand Filter Outfall After Filtration & Before Chlorine Contact Chamber

CAL-01 – Flow Through Plant (FLW-01 + FLW-02)
CAL-02 – Calculated Value
INF-01 – Outfall of Grit Chamber at Head Works

Description of Permitted Outfall(s): Surface Water Discharge (D-001): 1.0 MGD annual average daily flow (AADF) discharge to receiving wetlands, an unnamed section of East Bay Swamp, which discharges to East Bay River, Class III fresh waters, (WBID# 701B). Effluent is discharged to the receiving wetlands via a series of low velocity flow distribution structures with four discharge points. The permittee restricts public access to the receiving wetland. The central location of the distribution structures discharge points is located approximately at latitude 30°26’39” N, longitude 86°39’40” W.

Land Application (R-002): 1.587 MGD AADF permitted capacity slow-rate public access reuse system. R-001 is a reuse system which consists of slow-rate Part III public access (R-001) general service areas comprised of the Hurlburt AFB property and a portion of the City of Fort Walton Beach. The center of the GSA is located approximately at latitude 30°25’51.9” N, longitude 86°40’59.9” W. Treated drinking water may be used to autment the supply of reclaimed water.

Description of Treatment Process (if multiple discharge points, include a detailed map or diagram of facility): The plant is an activated sludge biological nutrient removal facility designed for nitrogen and phosphorus removal producing reclaimed water that meets 5, 5, 3,1 CBOD5, TSS, Total Nitrogen and Total Phosphorus annual average requirements defined under section 403.086(2), F.S. Treatment includes screening and grit removal, nitrification and denitrification in an aeration tank for nitrogen removal, and phosphorus removal with the addition of aluminum sulfate. This is followed by secondary clarification and tertiary filtration with sand filters. Effluent is disinfected with chlorine to basic standards and dechlorinated with sulfur dioxide prior to discharge to a receiving wetland; effluent is disinfected to high-level disinfection requirements for use in Part III Public Access Reuse General Service Areas. Residuals are aerobically digested, dewatered and transferred for land application at agricultural sites in Okaloosa and Walton Counties. Treatment facilities include Rotating Screens, an Aerated Grit Chamber, a 200,000 gallon Equalization Basin, followed by a 940,000 gallon Orbital Aeration Basin, two 143,000 gallon secondary Clarifiers, a Sand Filter, two 15,650 gallon Chlorine Contact Chambers, a Sulfur Dioxide Chamber for dechlorination and a final Aeration Cascade. An Effluent Lift Station sends effluent from the Aeration Cascade to the receiving wetland; substandard effluent is routed to a 1.0 MG Reject Holding Pond. An Industrial Reuse Pump station sends reclaimed water from the Chlorine Contact Chambers to a 2,000 gallon hydro pneumatic tank for onsite reuse in plant operations. A Part III Reuse Transfer Pump Station sends reclaimed water from the Chlorine Contact Chambers at the end of the Cascade Aeration to a 500,000 gallon Part III Reuse Tank for use in the Public Access Reuse System. Two 139,631 gallon Aerobic Digesters and a 600 lbs/hr Belt Filter Press produce dewatered Class B biosolids for land application.

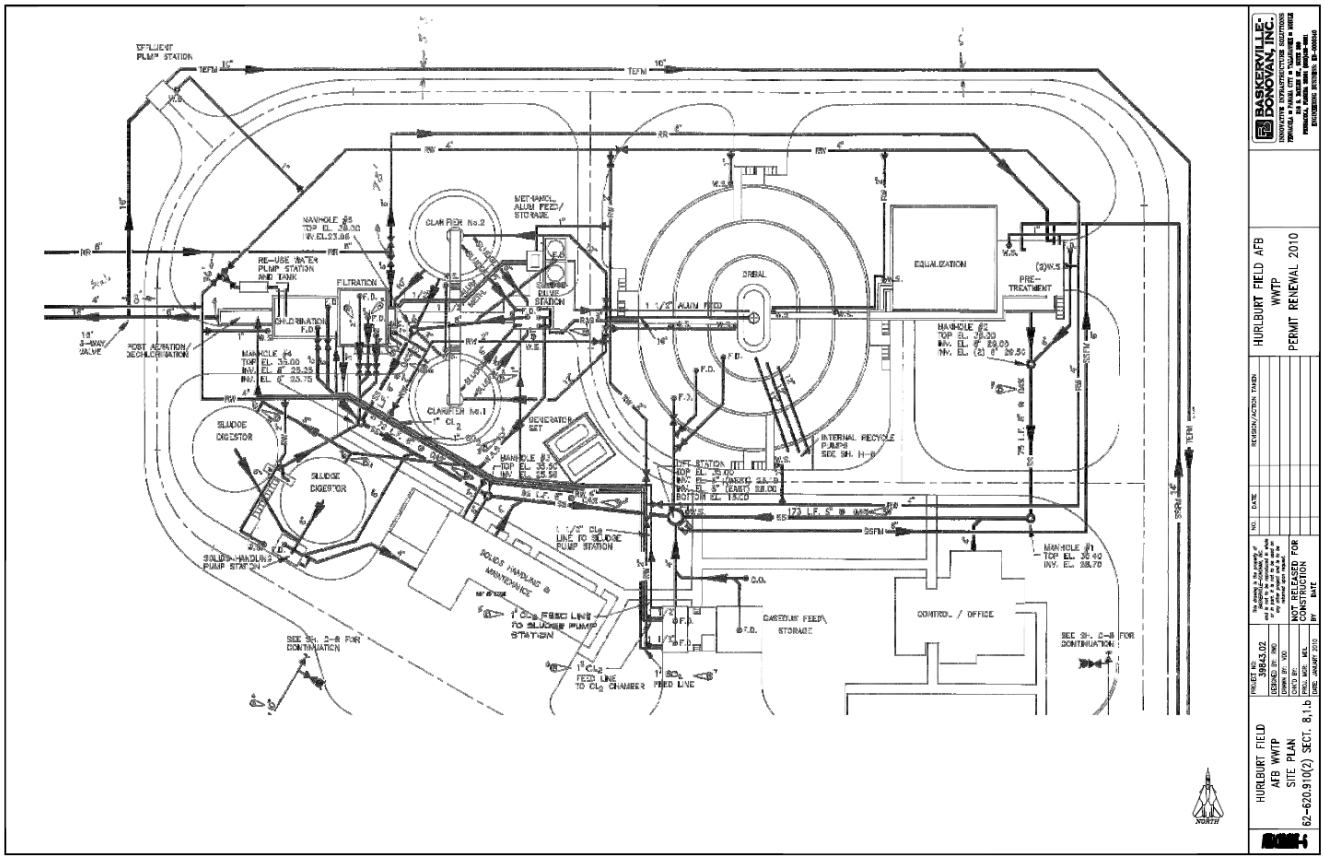


Figure 2 - Facility Site Plan

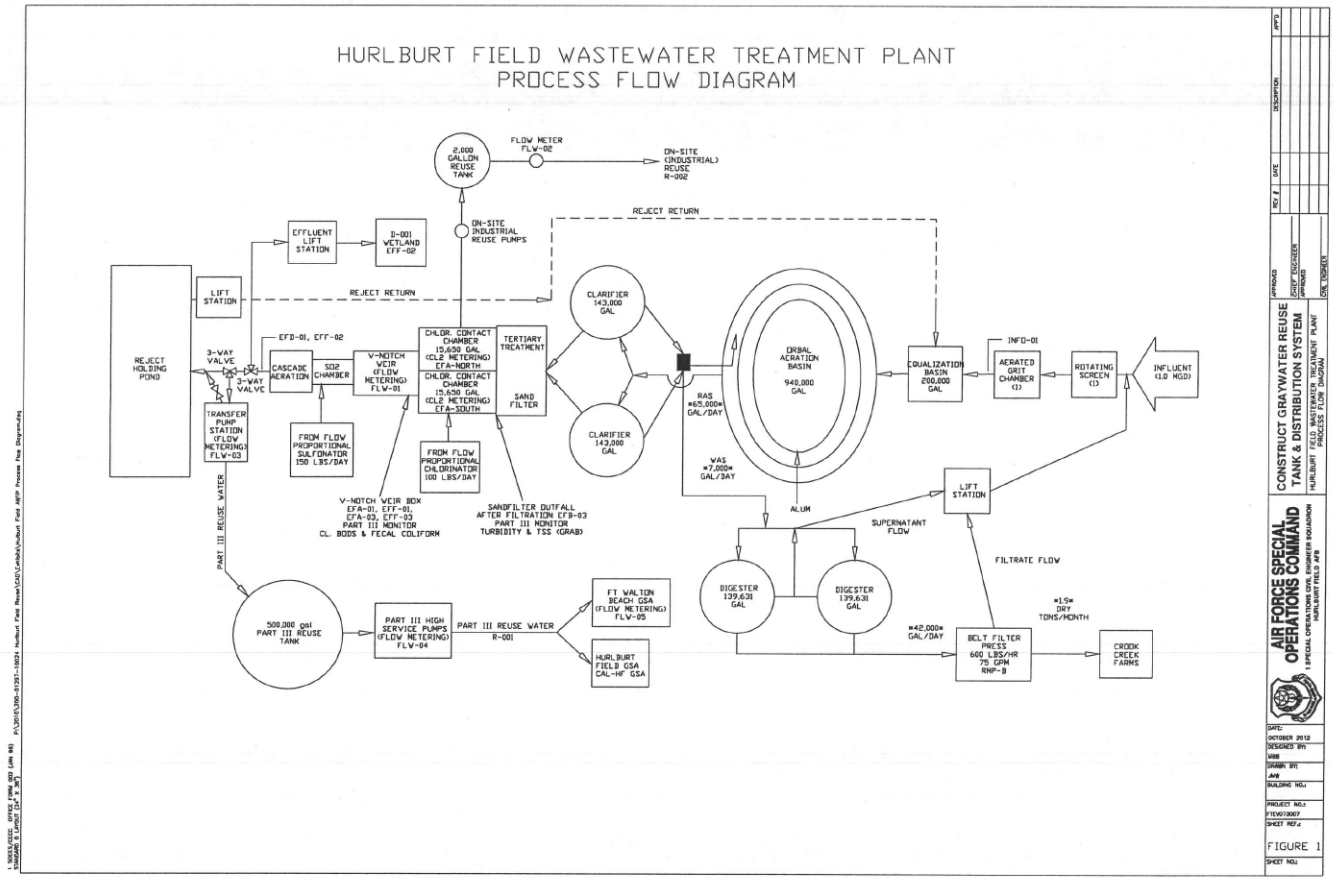


Figure 3 - Process Flow Diagram

PART I: Continued

List current Effluent Limits of Outfall(s) to be Sampled: This should include any AO or CO limits the facility may be under
(Leave cell blank if not applicable)

D-001

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow (To Wetlands)	MGD	Max Max	1.0 Report	Annual Average Monthly Average	Continuous	Calculated	CAL-FLOWET	
Flow (At V-Notch Weir)	MGD	Max Max	Report Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-01	
Flow (To WWTP Reuse)	MGD	Max Max	Report Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-02	
BOD, Carbonaceous 5 day, 20C	mg/L	Max Max Max Max	5.0 6.25 7.5 10.0	Annual Average Monthly Average Weekly Average Single Sample	Weekly	16-hr FPC	EFF-01	
Solids, Total Suspended (D-001)	mg/L	Max Max Max Max	5.0 6.25 7.5 10.0	Annual Average Monthly Average Weekly Average Single Sample	Weekly	16-hr FPC	EFF-01	
Nitrogen, Total	mg/L	Max Max Max Max	3.0 3.75 6.0 4.5	Annual Average Monthly Average Single Sample Weekly Average	Weekly	16-hr FPC	EFF-01	
Phosphorus, Total (as P)	mg/L	Max Max Max Max	1.0 1.25 2.0 1.5	Annual Average Monthly Average Single Sample Weekly Average	Weekly	16-hr FPC	EFF-01	
Coliform, Fecal (Basic Level)	#/100mL	Max Max Max	200 200 800	Annual Average Monthly Geometric Mean Single Sample	Weekly	Grab	EFF-01	See I.A.4
pH	s.u.	Min Max	6.0 8.5	Single Sample Single Sample	Continuous	Meter	EFF-01	See I.A.3
Chlorine, Total Residual (EFA-NBL)	mg/L	Min	0.5	Single Sample	Continuous	Meter	EFA-NBL	
Chlorine, Total Residual (EFA-SBL)	mg/L	Min	0.5	Single Sample	Continuous	Meter	EFA-SBL	

Chlorine, Total Residual (For Dechlorination)	mg/L	Max	0.01	Single Sample	Daily; 24 hours	Grab	EFD-01	
Oxygen, Dissolved (DO)	mg/L	Min	Report	Single Sample	Daily; 24 hours	Grab	EFF-02	
Nitrogen, Ammonia, Total (as N)	mg/L	Max Max Max	2.0 2.0 4.0	Annual Average Monthly Average Single Sample	Weekly	16-hr FPC	EFF-01	
Specific Conductance	umhos/cm	Max	Report	Single Sample	Quarterly	Grab	EFF-01	
Wetland Monitoring								
Nitrogen, Total	mg/L	Max	3.0	Annual Average	Annually	Grab	WEP-01	
Phosphorus, Total (as P)	mg/L	Max	0.2	Annual Average	Annually	Grab	WEP-01	
Nitrogen, Ammonia, Total unionized (as N)	mg/L	Max	0.02	Annual Average	Annually	Calculated	WEP-01	
Nitrogen, Ammonia, Total (as N)	mg/L	Max	Report	Single Sample	Annually	Grab	WEP-01 WIM-02 WIM-03	
BOD, Carbonaceous 5 day, 20C	mg/L	Max	Report	Single Sample	Annually	Grab	WEP-01 WIM-02 WIM-03	
Solids, Total Suspended	mg/L	Max	Report	Single Sample	Annually	Grab	WEP-01 WIM-02 WIM-03	
Coliform, Fecal	#/100mL	Max	Report	Single Sample	Annually	Grab	WEP-01 WIM-02 WIM-03	See I.A.4
pH	s.u.	Max	Report	Single Sample	Annually	Meter	WEP-01 WIM-02 WIM-03	
Temperature (C), Water	Deg C	Max	Report	Single Sample	Annually	Meter	WEP-01 WIM-02 WIM-03	
Nitrogen, Kjeldahl, Total (as N)	mg/L	Max	Report	Single Sample	Annually	Grab	WEP-01 WIM-02 WIM-03	
Specific Conductance	umhos/cm	Max	Report	Single Sample	Annually	Meter	WEP-01 WIM-02 WIM-03	
Phosphorus, Total (as P)	mg/L	Max	Report	Single Sample	Annually	Grab	WEP-01 WIM-02 WIM-03	
Nitrite plus Nitrate, Total 1 det. (as N)	mg/L	Max	Report	Single Sample	Annually	Grab	WEP-01 WIM-02 WIM-03	
Sulfate, Total	mg/L	Max	Report	Single Sample	Annually	Grab	WEP-01 WIM-02 WIM-03	
Chlorophyll a	ug/L	Max	Report	Single Sample	Annually	Grab	WEP-01 WIM-02 WIM-03	
Oxygen, Dissolved (DO)	mg/L	Max	Report	Single Sample	Annually	Meter	WEP-01 WIM-02 WIM-03	
Sulfide (as S)	Mg/kg	Max	Report	Single Sample	Annually	Sediment	WEP-01 WIM-02 WIM-03	

Tide Stage (Water Depth at Collection)	ft	Max	Report	Single Sample	Bi-weekly; every 2 weeks	Stage Recorder/Staff Gauge	WEP-01	
Tide Stage (Water Depth at Collection)	ft	Max	Report	Single Sample	Annually	Staff Gauge	WIM-02 WIM-03	
Herbaceous Vegetation	Yes=1; No=0	Max	Report	Positive Results	Annually	-	WEP-01 WIM-02 WIM-03	
Fish, Presence	Yes=1; No=0	Max	Report	Positive Results	Annually	-	WEP-01 WIM-02 WIM-03	
Woody Vegetation	Yes=1; No=0	Max	Report	Positive Results	Annually	-	WEP-01 WIM-02 WIM-03	
Threatened & Endangered Species, Presence	Yes=1; No=0	Max	Report	Positive Results	Annually	-	WEP-01 WIM-02 WIM-03	

Footnotes: I.A.3.: Hourly measurement of pH during the period of required operator attendance may be substituted for continuous measurement. [Chapter 62-601, Figure 2]
I.A.4.: The effluent limitation for the monthly geometric mean for fecal coliform bacteria is only applicable if 10 or more values are reported. If fewer than 10 values are reported, the monthly geometric mean shall be calculated and reported on the Discharge Monitoring Report to be used to calculate the annual average. [62-600.400(4)(c)]

R-001

			Reclaimed Water Limitations		Monitoring Requirements			
Parameter	Units	Max/ Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow (Total to Part III Reuse)	MGD	Max Max	1.587 Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-03	See I.B.4
Flow (Part III from Storage)	MGD	Max Max	Report Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-04	
Flow (Part III to FWB GSA)	MGD	Max Max	Report Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-05FWB	
Flow (Part III to Hurlburt GSA)	MGD	Max Max	Report Report	Annual Average Monthly Average	Continuous	Calculated	CAL-HFGSA	
BOD, Carbonaceous 5 day, 20C	mg/L	Max Max Max Max	20.0 30.0 45.0 60.0	Annual Average Monthly Average Weekly Average Single Sample	Weekly	16-hr FPC	EFF-03	
Solids, Total Suspended (R-001)	mg/L	Max	5.0	Single Sample	4 Days/Week	Grab	EFB-03	
Coliform, Fecal (R-001)	#/100mL	Max	25	Single Sample	4 Days/Week	Grab	EFF-03	
Coliform, Fecal, % less than detection	percent	Min	75	Monthly Total	4 Days/Week	Calculated	EFF-03	See I.B.5

pH	s.u.	Min Max	6.0 8.5	Single Sample Single Sample	Continuous	Meter	EFF-01	See I.B.3
Chlorine, Total Residual (EFA-NHL)	mg/L	Min	1.1	Single Sample	Continuous	Meter	EFA-NHL	See I.B.6 and I.B.9
Chlorine, Total Residual (EFA-SHL)	mg/L	Min	1.1	Single Sample	Continuous	Meter	EFA-SHL	See I.B.6 and I.B.9
Turbidity	NTU	Max	Report	Single Sample	Continuous	Meter	EFB-03	See I.B.7 and I.B.9
Giardia	cysts/100L	Max	Report	Single Sample	Bi-annually; every 2 years	Grab	EFF-03	See I.B.10
Cryptosporidium	oocysts/100L	Max	Report	Single Sample	Bi-annually; every 2 years	Grab	EFF-03	See I.B.10

Footnotes: I.B.3.: Hourly measurement of pH during the period of required operator attendance may be substituted for continuous measurement. [Chapter 62-601, Figure 2]
I.B.4.: A recording flow meter with totalizer shall be utilized to measure flow and calibrated at least once every 12 months. [62-601.200(17) and .500(6)]
I.B.5.: To report the "% less than detection," count the number of fecal coliform observations that were less than detection, divide by the total number of fecal coliform observations in the month, and multiply by 100% (round to the nearest integer). [62-600.400(5)(f)]
I.B.6.: The minimum total chlorine residual shall be limited as described in the approved operating protocol, such that the permit limitation for fecal coliform bacteria will be achieved. In no case shall the total chlorine residual be less than 1.0 mg/L [62-600.400(5)(b); 62-610.460(2); and 62-610463(2)]
I.B.7.: The maximum turbidity shall be limited as described in the approved operating protocol, such that the permit limitations for total suspended solids and fecal coliforms will be achieved [62-610.463(2)]
I.B.9.: Instruments for continuous on-line monitoring of total residual chlorine and turbidity shall be equipped with an automated data logging or recording device. [62-610.463(2)]
I.B.10.: Intervals between sampling for Giardia and Cryptosporidium shall not be exceeded [62-610.472(3)(d)]

PART I: Continued

Receiving Waters: Receiving wetlands, an unnamed section of East Bay Swamp, which discharges to East Bay River	**Classification (indicate whether fresh or marine):** East Bay River is a Class III fresh water body

Toxicity Test Requirements (routine and/or additional test language, test species, salinity adjustment, etc.): The facility is not required to conduct Whole Effluent Toxicity Testing for this discharge based on being a minor facility, and with no prior history of effluent toxicity, pursuant to Rule 62-620.620(3)(a), F.A.C.

Administrative or Consent Orders (date executed, specific requirements, interim limit dates-if applicable, etc.): None

Facility Mixing Zone Details (if applicable): None

List Permit Violations (DMR data) and plant upsets that occurred at the plant within the last year:

Date	Parameter and Units	Limit	Result
October 22, 2018	Total Phosphorus Weekly Average, mg/L	1.5	1.79

Describe previous FYI and WQBEL study:
FYI Biological Assessment Report Conclusions: The dissolved oxygen measured at both the Test and Control Wetland was below the Class III Freshwater Quality Criterion [62-302.530(30), F.A.C.], although this may be natural. Effluent grab sample cadmium, Test Wetland sample lead, and Control Wetland sample iron exceeded Class III Freshwater Quality Criteria [62-302.530(15, 39, and 38, respectively), F.A.C.], although the Test Wetland lead value was between the MDL and PQL. The effluent had amounts of ortho-phosphate, total phosphorus, and nitrate plus nitrite that were elevated over the amounts of each detected in either Test or Control Wetland. The AGP of the effluent was approximately 13.5 times higher than the problem threshold. Overall WCI-V and individual metric scores were similar between the Test and Control Wetlands. The overall WCI-V scores and most individual metric scores for both the Test and Control sites were similar to method development sites with low human disturbance.

Level I WQBEL study conducted by District Staff, and part of the current permit's renewal process, based upon the results reported on the Discharge Monitoring Reports for the previous permit cycle and the Fifth Year Bioassessment Inspection conducted in September 2014.

The facility has provided reasonable assurance that the discharge will not adversely affect the designated use of the receiving water. Fifth year inspection data, as well as all other available data, have been evaluated in accordance with the Department's reasonable assurance procedures to ensure that no limits other than those included in this permit are needed to maintain Florida water quality standards.

Describe previous or current Enforcement Actions (including WLs): None

Describe any violations or problems noted in previous inspection: At the last inspection completed on September 15, 2014, the report was rated "Out of Compliance" due to a "Minor Out of Compliance" rating for the Effluent Quality section of the report for a December 2013 unionized ammonia exceedance of 0.17 mg/L annual average (limit 0.02 mg/L) in the wetland at WEP-01. No exceedances were reported for the facility's effluent data. No corrective actions were required, the violation did not recur. Also, the facility's Effluent Disposal section of the report was rated "Out of Compliance" for conditions found at the Marina boat rinse facility missing required signage, no curbing around the rinse area allowing reuse water to flow to a storm drain which discharges into surface waters. The sign was placed around the facility and a curb was installed to prevent rinse water from flowing into the storm drain.
Discuss whether DMR trends within previous five years are improving or declining: Improving. In the past five years there have been a total of four reported effluent limit exceedances, one in 2014, zero in 2015, two in 2016, zero in 2017 and one in 2018.
Additional Comments (this should include a trend of the Effluent, i.e. if the facility is now Reuse):

PART II: Sampling Event Information	
Date(s) sample collected: 05/16/2019	**Sampler(s):** Dana Vestal
Temperature (Deg C): 4.5 °C	**pH (SU):** 7.49 facility data (7.31 DEP field data)
Dissolved Oxygen (mg/L): 8.08 facility data (No DEP field data, forgot to bring this meter)	**Conductivity (umhos/cm):** Not measured
Total Residual Chlorine (mg/L): For disinfection DEP data 1.59 S., 1.54 N.	**Total Residual Chlorine - after Disinfection (mg/L):** <0.002 Facility data (DEP field data 0.02, which is the MDL for the meter).
Method of Chlorination: Chlorine	**Method of De-chlorination:** Sulfur Dioxide
Flow During Sample Collection for each outfall(MGD): 0.42 MGD	
Mean Flow for each outfall for previous 12 months based on sampling date (If samples are taken on more than one day, indicate Mean Flow for each day): 0.42667 MGD (6/2018 to 5/2019 for annual average flow data reported on the monthly DMRs for CAL-FLOWET to D-001).	
Describe Discharge during Sampling Event: ☒ **Continuous** ☐ **Intermittent** ☐ **Seasonal** ☐ **Rainfall Dependent** ☐ **Other, please specify:**	
Describe any conditions, difficulties or abnormal events that occurred during the sample collection and any other additional comments here: OV-SULFD-W for blank I did not preserve this sample because I only had four vials for 5 sample bottles. I saved the preservatives for the wetlands samples and the effluent samples. Coolers were not received until the Friday afternoon prior to the sampling inspection. There was not time to get more sodium hydroxide/zinc acetate.	

Appendix B. Explanations of Measurements

Biological assessments are prepared by DEP staff to provide information for review of NPDES permit renewal applications. Biological assessments, in conjunction with other information concerning the subject facility and its receiving-water body, are used to determine appropriate permit conditions. References to Rule 62-302.530, F.A.C., are to the currently applicable surface water quality criteria table with an effective date of 02/17/2016 and a notice identification number of 17115667.

- **Chemical Analyses of the Effluent**

  The effluent was analyzed for nutrients, metals, organic constituents (base, neutral, and acid extractables) and pesticides following DEP SOPs. The results from these analyses were compared with Water Quality Criteria (62-302, F.A.C.) and facility permit limits.

- **Bacteriological Testing**

  High levels of fecal coliform bacteria may constitute an exceedance of 62-302.530(6) and/or facility permit limits. Fecal coliform results often are based on colony counts outside the acceptable range (B-qualifier). The dilutions performed on the sample did not yield results within the method acceptable range of 20- 60 colony forming units per plate. The B-qualifier does not affect data quality.

- **Chlorophyll *a* Content**

  Chlorophyll *a* content is an estimate of algal biomass. High algal biomass implies nutrient stress (Stevenson and Bahls 1999) and may be constitute exceedances of 62-302.530(47), F.A.C., 62-302.530(48)(a) F.A.C. and/or 62-302.530(48)(b) F.A.C..

- **Definition of Qualifiers**

  A - Value reported is the mean of two or more determinations
  B - Results based on colony counts outside the acceptable range.
  I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
  J - Estimated value
  K - Actual value is known to be less than value given
  L - Actual value is known to be greater than value given
  N - Presumptive evidence of presence of material.
  O - Sampled, but analysis lost or not performed.
  Q - Sample held beyond normal holding time.
  T - Value reported is less than the criterion of detection.
  U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
  V - Analyte was detected in both sample and method blank.
  X - Too few individuals to calculate SCI value.
  Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
  Z - Colonies were too numerous to count (TNTC)

Appendix C. Chain of Custody

Request Number: RQ-2019-04-29-29

FYI5 FL0003174 Hurlburt Field AWTP Sampling Inspection

Customer: NW-DIST

Project ID: FYI5

Florida Department of Environmental Protection
Central Laboratory Submittal Form

Page 1 of 5
last revised Jan 25, 2018

Requester: Tanya Welborn
Field Report Prepared By: Dana Vestal
Collected By: Dana Vestal
Sampling Agency: FDEP

Location	Collection (comp begin or grab)	Composite end	Bottle Group(s) (See pg 2)
Hurlburt Field AWTP (FL0003174)	☐ Comp ☒ Grab Date 5/6/19 Time 10:34 Eastern Central	Date Time	A
Field ID: Effluent Grab (EFF-01)	Matrix (type, e.g., Salt, Fresh, etc): Wastewater	Diss. Oxygen ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)
WIN/STORET #	Temp (C)	pH	Sample Depth ☐ ft ☐ m; Sp. Conductance (umho/cm)
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments

Location	Collection (comp begin or grab)	Composite end	Bottle Group(s)
Hurlburt Field AWTP (FL0003174)	☒ Comp ☐ Grab Date 5/5/19 Time 10:34A Eastern Central	Date 5/6/19 Time 10:18A	B
Field ID: Effluent Composite (EFF-01)	Matrix (type, e.g., Salt, Fresh, etc): Wastewater	Diss. Oxygen 8.08 ☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L) <0.002
WIN/STORET #	Temp (C)	pH 7.49 SU	Sample Depth ☐ ft ☐ m; Sp. Conductance (umho/cm)
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments: Field parameters-facility data

Location	Collection (comp begin or grab)	Composite end	Bottle Group(s)
Hurlburt Field AWTP (FL0003174)	☐ Comp ☒ Grab Date 5-6-19 SR 5/7/19 Time 1113 SR 5/7/19 Eastern Central	Date Time	D
Field ID: Field Blank	Matrix (type, e.g., Salt, Fresh, etc): DI water	Diss. Oxygen ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)
WIN/STORET #	Temp (C)	pH	Sample Depth ☐ ft ☐ m; Sp. Conductance (umho/cm)
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments: OV-Sulfide no Na-OH added, not enough sent for RQ.

Location	Collection (comp begin or grab)	Composite end	Bottle Group(s)
	☐ Comp ☐ Grab Date Time Eastern Central	Date Time	
Field ID	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)
WIN/STORET #	Temp (C)	pH	Sample Depth ☐ ft ☐ m; Sp. Conductance (umho/cm)
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
Dana Vestal	5/6/19 1:49P. CST	FedEx	3	SR	5-7-19/10:00

04-29-29

Request Number: RQ-2019-~~03-04-59~~

~~SMP Bioassessment~~ FYE Hurlburt Field

Florida Department of Environmental Protection
Central Laboratory Submittal Form

last revised Jan 25, 2018

Customer: NW-DIST

Project ID: ~~SMP~~ FYI5

Requester: ~~Michael King~~

Collected By: Nathan Mulkey

Field Report Prepared By: N. Mulkey

Sampling Agency: NW ROC

Location: Hurlburt Field AWTP	☐ Comp ☑ Grab	Collection (comp begin or grab) Date: 5/6/19 Time: 1045	Eastern Central	Composite end Date	Time	Bottle Group(s) (See pg 2): C					
Field ID: Control Wetland	Matrix (type, e.g., Salt, Fresh, etc):		Diss. Oxygen: 7.50	☑ mg/L ☐ % sat	Total Res. Chlorine (mg/L)						
WIN/STORET #	Temp (C): 20.7	pH: 5.51	Sample Depth: 0.2	☐ ft ☑ m	Sp. Conductance (umho/cm): 117.4						
Latitude: 30.44692 ☑ dd ☐ dms	Longitude: 86.65865 ☑ dd ☐ dms	Salinity (ppt)	Comments: Little flow								
Location: Hurlburt Field AWTP	☐ Comp ☑ Grab	Collection (comp begin or grab) Date: 5/6/19 Time: 1230	Eastern Central	Composite end Date	Time	Bottle Group(s): C					
Field ID: Test Wetland	Matrix (type, e.g., Salt, Fresh, etc):		Diss. Oxygen: 3.51	☑ mg/L ☐ % sat	Total Res. Chlorine (mg/L)						
WIN/STORET #	Temp (C): 22.7	pH: 5.47	Sample Depth: 0.1	☐ ft ☑ m	Sp. Conductance (umho/cm): 101.5						
Latitude: 30.41140 ☑ dd ☐ dms	Longitude: 86.47227 ☑ dd ☐ dms	Salinity (ppt)	Comments: Little flow								
Location	☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern Central	Composite end Date	Time	Bottle Group(s)					
Field ID	Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)						
WIN/STORET #	Temp (C)	pH	Sample Depth	☐ ft ☐ m	Sp. Conductance (umho/cm)						
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments								
Location	☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern Central	Composite end Date	Time	Bottle Group(s)					
Field ID	Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)						
WIN/STORET #	Temp (C)	pH	Sample Depth	☐ ft ☐ m	Sp. Conductance (umho/cm)						
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments								

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
	5/6/19	Fed Ex	2		5-7-19 / 10:00

SAMPLE TRANSMITTAL FORM
Document Reference # 05.1.0

Project: FDEP

Laboratory: Wetlands Research Laboratory

Sampler's intials : NM

Method of transport: Drop off on ice by automobile

Samples delivered by: [signature] of FDEP

Sample received by: [signature] of WRL

Page _1_ of _1_

Date/Time: 5/6/19 1434

Date/Time: 5/6/19 1434

Instructions: Fill in all fields except "Lab ID" on sample transport form completely. Each sample container must use a separate line. Place this form in a waterproof bag and place it with the samples for transport. If a field log or other chain of custody is attached, that information may be referenced on this form and the log or COC attached.

CST

Lab ID	Sample ID	Matrix[1]	Type[2]	Container Type	Analyses Requested	Preservative	Sample (°C)[3]	Sampling Date/Time
19-45085	Hurlburt Field AWTP Control Wetland	SW	G	Sterile plastic	Escherichia Coli / Fecal	ice/Na2S2O3	3.9	5/6/19 1045
19-45086	Hurlburt Field AWTP Test Wetland	↓	↓	↓	↓ ↓	↓	4.1	↓ 1230

Comments sample container lot# #18145

RQ-2019-04-29-29

Contact organization FDEP NWROC

Contact name

Phone: (850) 595-8300

Address 160 W Governmental Street, suite 208, Pensacola, FL 32502

Sampler's name: Nathan Nalley

[1]Matrix: SW = surface water, PW = pore water, GW = ground water, S = soil/sediment, X =

[2]Type codes: G = grab, C = composite, X =

[3] Recorded using IRT-2

SAMPLE TRANSMITTAL FORM
Document Reference # 05.1.0

Project: FDEP RQ-2019-04-29-29 Laboratory: Wetlands Research Laboratory Sampler's intials : DV

Method of transport: on ice by hand Page 1 of 1

Samples delivered by: Dana Vestal of FDEP Date/Time: 5/6/19 1 13:15

Sample received by: Jeremy Bosso of WRL Date/Time: 5/6/19 1 13:15

Instructions: Fill in all fields except "Lab ID" on sample transport form completely. Each sample container must use a separate line. Place this form in a waterproof bag and place it with the samples for transport. If a field log or other chain of custody is attached, that information may be referenced on this form and the log or COC attached.

Lab ID	Sample ID	Matrix[1]	Type[2]	Container Type	Analyses Requested	Preservative	Sample (°C)[3]	Sampling Date/Time
19-45083	Hurlburt Field AWTP Effluent (FL0003174)	X	G	Sterile plastic	Fecal coliform MF/E. coli Colilert 18 Quanti-tray	ice/Na2S2O3	2.1	05/06/2019 / 11:34A
19-45084	Hurlburt Field AWTP Field Blank	DI	G	Sterile plastic	Fecal coliform MF/E. coli Colilert 18 Quanti-tray	ice/Na2S2O3	2.6	05/06/2019 / 11:13A

Comments: sample container lot# L18145#

Contact organization: FDEP Contact name: Dana Vestal Phone: (850) 595-0659

Address 160 Governmental Center, suite 308, Pensacola, FL 32502 Sampler's name: Dana Vestal

[1]Matrix: SW = surface water, PW = pore water, GW = ground water, S = soil/sediment, X = Wastewater

[2]Type codes: G = grab, C = composite, X =

[3] Recorded using IRT-2

Appendix D. Chemical Analysis of Effluent and Receiving Water

Date_Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
5/6/2019 11:18	Effluent Composite	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	7.2 JV	mg/L	0.2	2
5/6/2019 11:18	Effluent Composite	Metals	Calcium	16.8	mg/L	0.075	0.3
5/6/2019 11:18	Effluent Composite	Metals	Nickel	1.2 I	ug/L	0.5	2
5/6/2019 11:18	Effluent Composite	Metals	Arsenic	0.19 I	ug/L	0.05	0.2
5/6/2019 11:18	Effluent Composite	Metals	Cadmium	0.289	ug/L	0.02	0.08
5/6/2019 11:18	Effluent Composite	Metals	Silver	0.010 U	ug/L	0.01	0.04
5/6/2019 11:18	Effluent Composite	Metals	Aluminum	64	ug/L	5	20
5/6/2019 11:18	Effluent Composite	Metals	Zinc	24	ug/L	5	20
5/6/2019 11:18	Effluent Composite	Metals	Magnesium	3.00	mg/L	0.04	0.16
5/6/2019 11:18	Effluent Composite	Metals	Copper	2.81	ug/L	0.4	0.8
5/6/2019 11:18	Effluent Composite	Metals	Selenium	0.20 U	ug/L	0.2	0.8
5/6/2019 11:18	Effluent Composite	Metals	Chromium	0.40 U	ug/L	0.4	1.6
5/6/2019 11:18	Effluent Composite	Metals	Sodium	96.7	mg/L	0.5	2
5/6/2019 11:18	Effluent Composite	Metals	Iron	30 U	ug/L	30	120
5/6/2019 11:18	Effluent Composite	Metals	Potassium	11.3	mg/L	0.3	1.2
5/6/2019 11:18	Effluent Composite	Metals	Lead	0.20 U	ug/L	0.2	0.4
5/6/2019 11:18	Effluent Composite	Nutrients	NO2NO3-N	1.6	mg N/L	0.04	0.1
5/6/2019 11:18	Effluent Composite	Nutrients	TSS	2 U	mg/L	2	10
5/6/2019 11:18	Effluent Composite	Nutrients	NO2NO3-N	1.6	mg N/L	0.04	0.1
5/6/2019 11:18	Effluent Composite	Nutrients	Organic Carbon	4.4	mg C/L	0.5	1
5/6/2019 11:18	Effluent Composite	Nutrients	Nitrite-N	0.002 UJ	mg N/L	0.002	0.005
5/6/2019 11:18	Effluent Composite	Nutrients	Total-P	0.59	mg P/L	0.005	0.05
5/6/2019 11:18	Effluent Composite	Nutrients	Kjeldahl Nitrogen	0.44 J	mg N/L	0.08	0.2
5/6/2019 11:18	Effluent Composite	Nutrients	pH	7.49			
5/6/2019 11:18	Effluent Composite	Nutrients	Total Residual Chlorine	0.002	mg/L		
5/6/2019 11:18	Effluent Composite	Nutrients	Dissolved Oxygen	8.08	mg/L		
5/6/2019 11:34	Effluent Grab	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Uncorrected	1.2 U	ug/L	1.2	3.6
5/6/2019 11:34	Effluent Grab	Chlorophyll/Grain Size/BOD	Phaeophytin-a	1.8 U	ug/L	1.8	5.4
5/6/2019 11:34	Effluent Grab	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	1.6 U	ug/L	1.6	5.1
5/6/2019 11:34	Effluent Grab	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	8.1 JV	mg/L	0.2	2
5/6/2019 11:34	Effluent Grab	Overflow	Fecal Coliforms-Membrane Filter	2 U	cfu/100 mL	2	2
5/6/2019 11:34	Effluent Grab	Overflow	Escherichia Coli-Quanti-Tray	10 U	MPN/100 mL	10	10
5/6/2019 11:34	Effluent Grab	Nutrients	Sulfate	30	mg SO4/L	0.4	1.2
5/6/2019 11:34	Effluent Grab	Nutrients	O-Phosphate-P	0.48	mg P/L	0.04	0.1

Date_Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
5/6/2019 11:34	Effluent Grab	Nutrients	Chloride	73	mg Cl/L	0.4	1.2
5/6/2019 11:34	Effluent Grab	Nutrients	Total Alkalinity	133 A	mg CaCO3/L	0.65	2.5
5/6/2019 11:34	Effluent Grab	Nutrients	Turbidity	0.45	NTU	0.1	0.13
5/6/2019 11:34	Effluent Grab	Nutrients	NO2NO3-N	1.7	mg N/L	0.04	0.1
5/6/2019 11:34	Effluent Grab	Nutrients	Kjeldahl Nitrogen	0.44	mg N/L	0.08	0.2
5/6/2019 11:34	Effluent Grab	Nutrients	Color (true)	2.5 U	PCU	2.5	6
5/6/2019 11:34	Effluent Grab	Nutrients	Total-P	0.53	mg P/L	0.005	0.05
5/6/2019 11:34	Effluent Grab	Nutrients	TSS	2 U	mg/L	2	10
5/6/2019 11:34	Effluent Grab	Nutrients	Organic Carbon	4.1	mg C/L	0.5	1
5/6/2019 11:34	Effluent Grab	Nutrients	Ammonia-N	0.011	mg N/L	0.002	0.005
5/6/2019 11:34	Effluent Grab	Nutrients	Fluoride	0.62	mg F/L	0.035	0.1
5/6/2019 11:34	Effluent Grab	Overflow	Sulfide	1.0 U	mg/L	1	1
5/6/2019 11:34	Effluent Grab	Pesticides	Atrazine Desisopropyl	0.011 U	ug/L	0.011	0.045
5/6/2019 11:34	Effluent Grab	Pesticides	Diazinon	0.011 U	ug/L	0.011	0.045
5/6/2019 11:34	Effluent Grab	Pesticides	Atrazine	0.011 U	ug/L	0.011	0.045
5/6/2019 11:34	Effluent Grab	Pesticides	Disulfoton	0.0056 U	ug/L	0.0056	0.022
5/6/2019 11:34	Effluent Grab	Pesticides	Fenamiphos	0.034 UJ	ug/L	0.034	0.13
5/6/2019 11:34	Effluent Grab	Pesticides	Bromacil	0.045 U	ug/L	0.045	0.18
5/6/2019 11:34	Effluent Grab	Pesticides	Chlorpyrifos Methyl	0.011 U	ug/L	0.011	0.045
5/6/2019 11:34	Effluent Grab	Pesticides	Demeton	0.027 U	ug/L	0.027	0.11
5/6/2019 11:34	Effluent Grab	Pesticides	Ethoprop	0.0056 U	ug/L	0.0056	0.022
5/6/2019 11:34	Effluent Grab	Pesticides	Malathion	0.011 U	ug/L	0.011	0.045
5/6/2019 11:34	Effluent Grab	Pesticides	Phorate	0.0056 UJ	ug/L	0.0056	0.022
5/6/2019 11:34	Effluent Grab	Pesticides	Butylate	0.056 UJ	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Pesticides	Chlorpyrifos Ethyl	0.011 U	ug/L	0.011	0.045
5/6/2019 11:34	Effluent Grab	Pesticides	Metolachlor	0.13 U	ug/L	0.13	0.54
5/6/2019 11:34	Effluent Grab	Pesticides	Parathion Ethyl	0.022 U	ug/L	0.022	0.09
5/6/2019 11:34	Effluent Grab	Pesticides	Prometon	0.022 U	ug/L	0.022	0.09
5/6/2019 11:34	Effluent Grab	Pesticides	Alachlor	0.067 U	ug/L	0.067	0.27
5/6/2019 11:34	Effluent Grab	Pesticides	Azinphos Methyl	0.10 UJ	ug/L	0.1	0.4
5/6/2019 11:34	Effluent Grab	Pesticides	Fonofos	0.011 U	ug/L	0.011	0.045
5/6/2019 11:34	Effluent Grab	Pesticides	Metribuzin	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Pesticides	Norflurazon	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Pesticides	Parathion Methyl	0.011 U	ug/L	0.011	0.045
5/6/2019 11:34	Effluent Grab	Pesticides	Simazine	0.011 U	ug/L	0.011	0.045
5/6/2019 11:34	Effluent Grab	Pesticides	Ametryn	0.011 U	ug/L	0.011	0.045
5/6/2019 11:34	Effluent Grab	Pesticides	Atrazine Desethyl	0.12	ug/L	0.011	0.045
5/6/2019 11:34	Effluent Grab	Pesticides	Mevinphos	0.011 U	ug/L	0.011	0.045

Date_Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
5/6/2019 11:34	Effluent Grab	Pesticides	Prometryn	0.022 U	ug/L	0.022	0.09
5/6/2019 11:34	Effluent Grab	Pesticides	Ibuprofen	0.020 U	ug/L	0.02	0.08
5/6/2019 11:34	Effluent Grab	Pesticides	Naled	0.090 U	ug/L	0.09	0.36
5/6/2019 11:34	Effluent Grab	Pesticides	Naproxen	0.0080 U	ug/L	0.008	0.032
5/6/2019 11:34	Effluent Grab	Pesticides	Ethion	0.011 U	ug/L	0.011	0.045
5/6/2019 11:34	Effluent Grab	Pesticides	Hexazinone	0.079 U	ug/L	0.079	0.31
5/6/2019 11:34	Effluent Grab	Pesticides	Metalaxyl	0.20 UJ	ug/L	0.2	0.81
5/6/2019 11:34	Effluent Grab	Pesticides	Sucralose	56	ug/L	0.01	0.04
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	0.11 U	ug/L	0.11	0.44
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Di-n-butyl phthalate	2.2 U	ug/L	2.2	8.9
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Butyl benzyl phthalate	1.1 U	ug/L	1.1	4.4
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	5.6 U	ug/L	5.6	22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Benzo(k)fluoranthene	0.028 U	ug/L	0.028	0.11
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Acenaphthylene	0.028 U	ug/L	0.028	0.11
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Diethyl phthalate	2.2 U	ug/L	2.2	8.9
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Hexachlorobenzene	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Hexachlorobutadiene	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Naphthalene	0.11 U	ug/L	0.11	0.44
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Nitrobenzene	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Benzo(a)anthracene	0.028 U	ug/L	0.028	0.11
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Hexachloroethane	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.028 U	ug/L	0.028	0.11
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Isophorone	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Phenol	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Pyrene	0.11 U	ug/L	0.11	0.44
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	2,4-Dinitrophenol	11 U	ug/L	11	44
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.3 U	ug/L	3.3	13
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	3,3'-Dichlorobenzidine	11 U	ug/L	11	44
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Anthracene	0.028 U	ug/L	0.028	0.11
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	N-Nitrosodimethylamine	2.2 U	ug/L	2.2	8.9
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Pentachlorophenol	0.56 U	ug/L	0.56	2.2
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	2-Nitrophenol	0.056 U	ug/L	0.056	0.22

Date_Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	4-Nitrophenol	11 U	ug/L	11	44
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	2,4-Dichlorophenol	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Benzidine	11 U	ug/L	11	44
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Benzo(a)pyrene	0.028 U	ug/L	0.028	0.11
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Fluorene	0.028 U	ug/L	0.028	0.11
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	2-Chloronaphthalene	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Benzo(b)fluoranthene	0.028 U	ug/L	0.028	0.11
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.028 U	ug/L	0.028	0.11
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Hexachlorocyclopentadiene	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Acenaphthene	0.028 U	ug/L	0.028	0.11
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	2,4-Dimethylphenol	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	2,6-Dinitrotoluene	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Di-n-octyl phthalate	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.028 U	ug/L	0.028	0.11
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Chrysene	0.028 U	ug/L	0.028	0.11
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Fluoranthene	0.028 U	ug/L	0.028	0.11
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Phenanthrene	0.11 U	ug/L	0.11	0.44
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	1,4-Dioxane	0.20	ug/L	0.02	0.08
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	2,4-Dinitrotoluene	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	2-Chlorophenol	0.056 U	ug/L	0.056	0.22
5/6/2019 11:34	Effluent Grab	Priority Organic Pollutants	Dimethyl phthalate	0.056 U	ug/L	0.056	0.22
5/6/2019 13:30	Test Wetland	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Uncorrected	1.7 I	ug/L	1.2	3.6
5/6/2019 13:30	Test Wetland	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	3.9 JV	mg/L	0.2	2
5/6/2019 13:30	Test Wetland	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	1.6 U	ug/L	1.6	5.1
5/6/2019 13:30	Test Wetland	Chlorophyll/Grain Size/BOD	Phaeophytin-a	1.8 U	ug/L	1.8	5.4
5/6/2019 13:30	Test Wetland	Overflow	Fecal Coliforms-Membrane Filter	58	cfu/100 mL	2	2
5/6/2019 13:30	Test Wetland	Overflow	Escherichia Coli-Quanti-Tray	20	MPN/100 mL	10	10
5/6/2019 13:30	Test Wetland	Metals	Chromium	0.40 U	ug/L	0.4	1.6
5/6/2019 13:30	Test Wetland	Metals	Zinc	5.0 U	ug/L	5	20
5/6/2019 13:30	Test Wetland	Metals	Sodium	14.9	mg/L	0.5	2
5/6/2019 13:30	Test Wetland	Metals	Silver	0.010 U	ug/L	0.01	0.04
5/6/2019 13:30	Test Wetland	Metals	Magnesium	0.84	mg/L	0.04	0.16
5/6/2019 13:30	Test Wetland	Metals	Selenium	0.20 U	ug/L	0.2	0.8
5/6/2019 13:30	Test Wetland	Metals	Arsenic	0.55	ug/L	0.05	0.2
5/6/2019 13:30	Test Wetland	Metals	Lead	0.24 I	ug/L	0.2	0.4

Date_Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
5/6/2019 13:30	Test Wetland	Metals	Aluminum	200	ug/L	5	20
5/6/2019 13:30	Test Wetland	Metals	Copper	0.40 U	ug/L	0.4	0.8
5/6/2019 13:30	Test Wetland	Metals	Iron	310	ug/L	30	120
5/6/2019 13:30	Test Wetland	Metals	Nickel	0.50 U	ug/L	0.5	2
5/6/2019 13:30	Test Wetland	Metals	Calcium	5.03	mg/L	0.075	0.3
5/6/2019 13:30	Test Wetland	Metals	Potassium	0.84 I	mg/L	0.3	1.2
5/6/2019 13:30	Test Wetland	Metals	Cadmium	0.020 U	ug/L	0.02	0.08
5/6/2019 13:30	Test Wetland	Nutrients	NO2NO3-N	0.007 I	mg N/L	0.004	0.01
5/6/2019 13:30	Test Wetland	Nutrients	TSS	4 I	mg/L	2	10
5/6/2019 13:30	Test Wetland	Nutrients	Sulfate	1.4	mg SO4/L	0.2	0.6
5/6/2019 13:30	Test Wetland	Nutrients	Total Alkalinity	20	mg CaCO3/L	0.65	2.5
5/6/2019 13:30	Test Wetland	Nutrients	Organic Carbon	16	mg C/L	0.5	1
5/6/2019 13:30	Test Wetland	Nutrients	Ammonia-N	0.041	mg N/L	0.002	0.005
5/6/2019 13:30	Test Wetland	Nutrients	Chloride	15	mg Cl/L	0.2	0.6
5/6/2019 13:30	Test Wetland	Nutrients	Turbidity	1.7	NTU	0.1	0.13
5/6/2019 13:30	Test Wetland	Nutrients	O-Phosphate-P	0.005 I	mg P/L	0.004	0.01
5/6/2019 13:30	Test Wetland	Nutrients	Kjeldahl Nitrogen	0.86	mg N/L	0.08	0.2
5/6/2019 13:30	Test Wetland	Nutrients	Fluoride	0.039 I	mg F/L	0.035	0.1
5/6/2019 13:30	Test Wetland	Nutrients	Color (true)	220	PCU	5	12
5/6/2019 13:30	Test Wetland	Nutrients	Total-P	0.024	mg P/L	0.002	0.005
5/6/2019 13:30	Test Wetland	Overflow	Sulfide	1.0 U	mg/L	1	1
5/6/2019 13:30	Test Wetland	Pesticides	Sucralose	6.5	ug/L	0.01	0.04
5/6/2019 13:30	Test Wetland	Pesticides	Naproxen	0.0080 U	ug/L	0.008	0.032
5/6/2019 13:30	Test Wetland	Pesticides	Ibuprofen	0.020 U	ug/L	0.02	0.08
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	2,4-Dimethylphenol	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	2,6-Dinitrotoluene	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	2-Chloronaphthalene	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Benzo(a)pyrene	0.027 U	ug/L	0.027	0.11
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Isophorone	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	1,4-Dioxane	0.020 U	ug/L	0.02	0.08
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	2,4-Dinitrophenol	11 U	ug/L	11	43
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	2,4-Dinitrotoluene	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Acenaphthene	0.027 U	ug/L	0.027	0.11
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.027 U	ug/L	0.027	0.11
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Hexachlorobenzene	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Hexachloroethane	0.054 U	ug/L	0.054	0.22

Date_Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Phenanthrene	0.11 U	ug/L	0.11	0.43
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	2-Nitrophenol	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Acenaphthylene	0.027 U	ug/L	0.027	0.11
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Benzo(k)fluoranthene	0.027 U	ug/L	0.027	0.11
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	5.4 U	ug/L	5.4	22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Diethyl phthalate	2.2 U	ug/L	2.2	8.6
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Fluorene	0.027 U	ug/L	0.027	0.11
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.027 U	ug/L	0.027	0.11
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	2,4-Dichlorophenol	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.2 U	ug/L	3.2	13
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	3,3'-Dichlorobenzidine	11 U	ug/L	11	43
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	4-Nitrophenol	11 U	ug/L	11	43
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Hexachlorobutadiene	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Hexachlorocyclopentadiene	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	2-Chlorophenol	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Anthracene	0.027 U	ug/L	0.027	0.11
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Phenol	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Chrysene	0.027 U	ug/L	0.027	0.11
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Di-n-butyl phthalate	2.2 U	ug/L	2.2	8.6
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Fluoranthene	0.027 U	ug/L	0.027	0.11
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	N-Nitrosodimethylamine	2.2 U	ug/L	2.2	8.6
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Nitrobenzene	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Pyrene	0.11 U	ug/L	0.11	0.43
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Benzo(a)anthracene	0.027 U	ug/L	0.027	0.11
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.027 U	ug/L	0.027	0.11
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Butyl benzyl phthalate	1.1 U	ug/L	1.1	4.3
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Dimethyl phthalate	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Naphthalene	0.11 U	ug/L	0.11	0.43
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Pentachlorophenol	0.54 U	ug/L	0.54	2.2
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Benzidine	11 U	ug/L	11	43
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Benzo(b)fluoranthene	0.027 U	ug/L	0.027	0.11
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	0.054 U	ug/L	0.054	0.22

Date_Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	Di-n-octyl phthalate	0.054 U	ug/L	0.054	0.22
5/6/2019 13:30	Test Wetland	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	0.11 U	ug/L	0.11	0.43
5/6/2019 13:30	Test Wetland	Nutrients	Specific Conductance	101.5	umhos/cm		
5/6/2019 13:30	Test Wetland	Nutrients	Dissolved Oxygen	3.51	mg/L		
5/6/2019 13:30	Test Wetland	Nutrients	pH	5.47			
5/6/2019 13:30	Test Wetland	Nutrients	Temperature	22.7	C		
5/6/2019 13:30	Test Wetland	Nutrients	Sample Depth	0.1	m		
5/6/2019 11:45	Control Wetland	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Uncorrected	2.2 I	ug/L	1.2	3.6
5/6/2019 11:45	Control Wetland	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	1.6 U	ug/L	1.6	5.1
5/6/2019 11:45	Control Wetland	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	4.8 AJV	mg/L	0.2	2
5/6/2019 11:45	Control Wetland	Chlorophyll/Grain Size/BOD	Phaeophytin-a	1.8 U	ug/L	1.8	5.4
5/6/2019 11:45	Control Wetland	Overflow	Fecal Coliforms-Membrane Filter	11 B	cfu/100 mL	2	2
5/6/2019 11:45	Control Wetland	Overflow	Escherichia Coli-Quanti-Tray	31	MPN/100 mL	10	10
5/6/2019 11:45	Control Wetland	Metals	Copper	0.40 U	ug/L	0.4	0.8
5/6/2019 11:45	Control Wetland	Metals	Sodium	9.1	mg/L	0.5	2
5/6/2019 11:45	Control Wetland	Metals	Cadmium	0.020 U	ug/L	0.02	0.08
5/6/2019 11:45	Control Wetland	Metals	Aluminum	41	ug/L	5	20
5/6/2019 11:45	Control Wetland	Metals	Lead	0.20 U	ug/L	0.2	0.4
5/6/2019 11:45	Control Wetland	Metals	Nickel	0.50 U	ug/L	0.5	2
5/6/2019 11:45	Control Wetland	Metals	Selenium	0.20 U	ug/L	0.2	0.8
5/6/2019 11:45	Control Wetland	Metals	Zinc	5.0 U	ug/L	5	20
5/6/2019 11:45	Control Wetland	Metals	Chromium	0.40 U	ug/L	0.4	1.6
5/6/2019 11:45	Control Wetland	Metals	Iron	1.28E+03	ug/L	30	120
5/6/2019 11:45	Control Wetland	Metals	Potassium	0.38 I	mg/L	0.3	1.2
5/6/2019 11:45	Control Wetland	Metals	Magnesium	1.12	mg/L	0.04	0.16
5/6/2019 11:45	Control Wetland	Metals	Silver	0.010 U	ug/L	0.01	0.04
5/6/2019 11:45	Control Wetland	Metals	Arsenic	1.39	ug/L	0.05	0.2
5/6/2019 11:45	Control Wetland	Metals	Calcium	12.0	mg/L	0.075	0.3
5/6/2019 11:45	Control Wetland	Nutrients	Kjeldahl Nitrogen	0.39	mg N/L	0.08	0.2
5/6/2019 11:45	Control Wetland	Nutrients	Color (true)	75	PCU	2.5	6
5/6/2019 11:45	Control Wetland	Nutrients	TSS	4 I	mg/L	2	10
5/6/2019 11:45	Control Wetland	Nutrients	Total Alkalinity	34	mg CaCO3/L	0.65	2.5
5/6/2019 11:45	Control Wetland	Nutrients	Sulfate	1.6	mg SO4/L	0.2	0.6
5/6/2019 11:45	Control Wetland	Nutrients	NO2NO3-N	0.004 U	mg N/L	0.004	0.01
5/6/2019 11:45	Control Wetland	Nutrients	Turbidity	2.9	NTU	0.1	0.13
5/6/2019 11:45	Control Wetland	Nutrients	Fluoride	0.035 U	mg F/L	0.035	0.1
5/6/2019 11:45	Control Wetland	Nutrients	Organic Carbon	7.0	mg C/L	0.5	1
5/6/2019 11:45	Control Wetland	Nutrients	Chloride	11	mg Cl/L	0.2	0.6

Date_Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
5/6/2019 11:45	Control Wetland	Nutrients	Ammonia-N	0.004 I	mg N/L	0.002	0.005
5/6/2019 11:45	Control Wetland	Nutrients	Total-P	0.025	mg P/L	0.002	0.005
5/6/2019 11:45	Control Wetland	Nutrients	O-Phosphate-P	0.009 I	mg P/L	0.004	0.01
5/6/2019 11:45	Control Wetland	Overflow	Sulfide	1.1 U	mg/L	1.1	1.1
5/6/2019 11:45	Control Wetland	Pesticides	Ibuprofen	0.020 U	ug/L	0.02	0.08
5/6/2019 11:45	Control Wetland	Pesticides	Sucralose	0.048	ug/L	0.01	0.04
5/6/2019 11:45	Control Wetland	Pesticides	Naproxen	0.0080 U	ug/L	0.008	0.032
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	2-Nitrophenol	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Benzo(k)fluoranthene	0.027 U	ug/L	0.027	0.11
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Butyl benzyl phthalate	1.1 U	ug/L	1.1	4.4
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Di-n-octyl phthalate	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	2-Chloronaphthalene	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.3 U	ug/L	3.3	13
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Benzo(a)anthracene	0.027 U	ug/L	0.027	0.11
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Benzo(a)pyrene	0.027 U	ug/L	0.027	0.11
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Benzo(b)fluoranthene	0.027 U	ug/L	0.027	0.11
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Diethyl phthalate	2.2 U	ug/L	2.2	8.8
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Fluoranthene	0.027 U	ug/L	0.027	0.11
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Nitrobenzene	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Phenanthrene	0.11 U	ug/L	0.11	0.44
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Pyrene	0.11 U	ug/L	0.11	0.44
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Chrysene	0.027 U	ug/L	0.027	0.11
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Dimethyl phthalate	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Hexachlorobenzene	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Hexachlorobutadiene	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	2,4-Dinitrophenol	11 U	ug/L	11	44
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Hexachlorocyclopentadiene	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	1,4-Dioxane	0.020 U	ug/L	0.02	0.08
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	2,4-Dichlorophenol	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	2,4-Dinitrotoluene	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Acenaphthene	0.027 U	ug/L	0.027	0.11
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Acenaphthylene	0.027 U	ug/L	0.027	0.11
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Anthracene	0.027 U	ug/L	0.027	0.11

Date_Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.027 U	ug/L	0.027	0.11
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.027 U	ug/L	0.027	0.11
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Fluorene	0.027 U	ug/L	0.027	0.11
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	0.11 U	ug/L	0.11	0.44
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Naphthalene	0.11 U	ug/L	0.11	0.44
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Phenol	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	2,4-Dimethylphenol	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	3,3'-Dichlorobenzidine	11 U	ug/L	11	44
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Benzidine	11 U	ug/L	11	44
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.027 U	ug/L	0.027	0.11
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Isophorone	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	N-Nitrosodimethylamine	2.2 U	ug/L	2.2	8.8
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	2,6-Dinitrotoluene	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	2-Chlorophenol	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	4-Nitrophenol	11 U	ug/L	11	44
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	5.5 U	ug/L	5.5	22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Pentachlorophenol	0.55 U	ug/L	0.55	2.2
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Hexachloroethane	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	0.055 U	ug/L	0.055	0.22
5/6/2019 11:45	Control Wetland	Priority Organic Pollutants	Di-n-butyl phthalate	2.2 U	ug/L	2.2	8.8
5/6/2019 11:45	Control Wetland	Nutrients	Sample Depth	0.2	m		
5/6/2019 11:45	Control Wetland	Nutrients	Dissolved Oxygen	1.50	mg/L		
5/6/2019 11:45	Control Wetland	Nutrients	Temperature	20.7	C		
5/6/2019 11:45	Control Wetland	Nutrients	pH	5.51			
5/6/2019 11:45	Control Wetland	Nutrients	Specific Conductance	117.4	umhos/cm		
5/6/2019 12:13	Blank	Overflow	Escherichia Coli-Quanti-Tray	1 U	MPN/100 mL	1	1
5/6/2019 12:13	Blank	Overflow	Fecal Coliforms-Membrane Filter	1 U	cfu/100 mL	1	1
5/6/2019 12:13	Blank	Metals	Silver	0.010 U	ug/L	0.01	0.04
5/6/2019 12:13	Blank	Metals	Iron	30 U	ug/L	30	120
5/6/2019 12:13	Blank	Metals	Magnesium	0.040 U	mg/L	0.04	0.16
5/6/2019 12:13	Blank	Metals	Arsenic	0.050 U	ug/L	0.05	0.2
5/6/2019 12:13	Blank	Metals	Aluminum	5.0 U	ug/L	5	20
5/6/2019 12:13	Blank	Metals	Cadmium	0.020 U	ug/L	0.02	0.08
5/6/2019 12:13	Blank	Metals	Selenium	0.20 U	ug/L	0.2	0.8
5/6/2019 12:13	Blank	Metals	Zinc	5.0 U	ug/L	5	20

Date_Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
5/6/2019 12:13	Blank	Metals	Copper	0.40 U	ug/L	0.4	0.8
5/6/2019 12:13	Blank	Metals	Lead	0.20 U	ug/L	0.2	0.4
5/6/2019 12:13	Blank	Metals	Nickel	0.50 U	ug/L	0.5	2
5/6/2019 12:13	Blank	Metals	Chromium	0.40 U	ug/L	0.4	1.6
5/6/2019 12:13	Blank	Metals	Sodium	0.50 U	mg/L	0.5	2
5/6/2019 12:13	Blank	Metals	Calcium	0.075 U	mg/L	0.075	0.3
5/6/2019 12:13	Blank	Metals	Potassium	0.30 U	mg/L	0.3	1.2
5/6/2019 12:13	Blank	Nutrients	Fluoride	0.035 U	mg F/L	0.035	0.1
5/6/2019 12:13	Blank	Nutrients	NO2NO3-N	0.004 U	mg N/L	0.004	0.01
5/6/2019 12:13	Blank	Nutrients	Ammonia-N	0.002 U	mg N/L	0.002	0.005
5/6/2019 12:13	Blank	Nutrients	Total Alkalinity	0.65 U	mg CaCO3/L	0.65	2.5
5/6/2019 12:13	Blank	Nutrients	Sulfate	0.20 U	mg SO4/L	0.2	0.6
5/6/2019 12:13	Blank	Nutrients	Kjeldahl Nitrogen	0.080 U	mg N/L	0.08	0.2
5/6/2019 12:13	Blank	Nutrients	Turbidity	0.10 U	NTU	0.1	0.13
5/6/2019 12:13	Blank	Nutrients	Color (true)	2.5 U	PCU	2.5	6
5/6/2019 12:13	Blank	Nutrients	Total-P	0.002 U	mg P/L	0.002	0.005
5/6/2019 12:13	Blank	Nutrients	Chloride	0.20 U	mg Cl/L	0.2	0.6
5/6/2019 12:13	Blank	Nutrients	O-Phosphate-P	0.004 U	mg P/L	0.004	0.01
5/6/2019 12:13	Blank	Nutrients	Organic Carbon	0.50 U	mg C/L	0.5	1
5/6/2019 12:13	Blank	Overflow	Sulfide	1.0 U	mg/L	1	1
5/6/2019 12:13	Blank	Pesticides	Malathion	0.011 U	ug/L	0.011	0.043
5/6/2019 12:13	Blank	Pesticides	Butylate	0.054 UJ	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Pesticides	Parathion Methyl	0.011 U	ug/L	0.011	0.043
5/6/2019 12:13	Blank	Pesticides	Sucralose	0.010 U	ug/L	0.01	0.04
5/6/2019 12:13	Blank	Pesticides	Metolachlor	0.13 U	ug/L	0.13	0.52
5/6/2019 12:13	Blank	Pesticides	Metribuzin	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Pesticides	Mevinphos	0.011 U	ug/L	0.011	0.043
5/6/2019 12:13	Blank	Pesticides	Ametryn	0.011 U	ug/L	0.011	0.043
5/6/2019 12:13	Blank	Pesticides	Atrazine	0.011 U	ug/L	0.011	0.043
5/6/2019 12:13	Blank	Pesticides	Azinphos Methyl	0.097 UJ	ug/L	0.097	0.39
5/6/2019 12:13	Blank	Pesticides	Diazinon	0.011 U	ug/L	0.011	0.043
5/6/2019 12:13	Blank	Pesticides	Prometon	0.022 U	ug/L	0.022	0.086
5/6/2019 12:13	Blank	Pesticides	Atrazine Desethyl	0.011 U	ug/L	0.011	0.043
5/6/2019 12:13	Blank	Pesticides	Atrazine Desisopropyl	0.011 U	ug/L	0.011	0.043
5/6/2019 12:13	Blank	Pesticides	Demeton	0.026 U	ug/L	0.026	0.1
5/6/2019 12:13	Blank	Pesticides	Fenamiphos	0.032 UJ	ug/L	0.032	0.13
5/6/2019 12:13	Blank	Pesticides	Metalaxyl	0.19 UJ	ug/L	0.19	0.78
5/6/2019 12:13	Blank	Pesticides	Prometryn	0.022 U	ug/L	0.022	0.086

Date_Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
5/6/2019 12:13	Blank	Pesticides	Chlorpyrifos Methyl	0.011 U	ug/L	0.011	0.043
5/6/2019 12:13	Blank	Pesticides	Hexazinone	0.075 U	ug/L	0.075	0.3
5/6/2019 12:13	Blank	Pesticides	Phorate	0.0054 UJ	ug/L	0.0054	0.022
5/6/2019 12:13	Blank	Pesticides	Fonofos	0.011 U	ug/L	0.011	0.043
5/6/2019 12:13	Blank	Pesticides	Naled	0.086 U	ug/L	0.086	0.34
5/6/2019 12:13	Blank	Pesticides	Norflurazon	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Pesticides	Parathion Ethyl	0.022 U	ug/L	0.022	0.086
5/6/2019 12:13	Blank	Pesticides	Simazine	0.011 U	ug/L	0.011	0.043
5/6/2019 12:13	Blank	Pesticides	Naproxen	0.0080 U	ug/L	0.008	0.032
5/6/2019 12:13	Blank	Pesticides	Bromacil	0.043 U	ug/L	0.043	0.17
5/6/2019 12:13	Blank	Pesticides	Ethion	0.011 U	ug/L	0.011	0.043
5/6/2019 12:13	Blank	Pesticides	Chlorpyrifos Ethyl	0.011 U	ug/L	0.011	0.043
5/6/2019 12:13	Blank	Pesticides	Disulfoton	0.0054 U	ug/L	0.0054	0.022
5/6/2019 12:13	Blank	Pesticides	Ethoprop	0.0054 U	ug/L	0.0054	0.022
5/6/2019 12:13	Blank	Pesticides	Ibuprofen	0.020 U	ug/L	0.02	0.08
5/6/2019 12:13	Blank	Pesticides	Alachlor	0.065 U	ug/L	0.065	0.26
5/6/2019 12:13	Blank	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	Fluoranthene	0.027 U	ug/L	0.027	0.11
5/6/2019 12:13	Blank	Priority Organic Pollutants	Hexachlorobutadiene	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	2,4-Dinitrophenol	11 U	ug/L	11	43
5/6/2019 12:13	Blank	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.3 U	ug/L	3.3	13
5/6/2019 12:13	Blank	Priority Organic Pollutants	3,3'-Dichlorobenzidine	11 U	ug/L	11	43
5/6/2019 12:13	Blank	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.027 U	ug/L	0.027	0.11
5/6/2019 12:13	Blank	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	5.4 U	ug/L	5.4	22
5/6/2019 12:13	Blank	Priority Organic Pollutants	2,4-Dimethylphenol	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	2-Chlorophenol	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	Butyl benzyl phthalate	1.1 U	ug/L	1.1	4.3
5/6/2019 12:13	Blank	Priority Organic Pollutants	Chrysene	0.027 U	ug/L	0.027	0.11
5/6/2019 12:13	Blank	Priority Organic Pollutants	Di-n-butyl phthalate	2.2 U	ug/L	2.2	8.7
5/6/2019 12:13	Blank	Priority Organic Pollutants	Hexachloroethane	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	1,4-Dioxane	0.020 U	ug/L	0.02	0.08
5/6/2019 12:13	Blank	Priority Organic Pollutants	2,6-Dinitrotoluene	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	2-Chloronaphthalene	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	Benzo(a)pyrene	0.027 U	ug/L	0.027	0.11
5/6/2019 12:13	Blank	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.054 U	ug/L	0.054	0.22

Date_Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
5/6/2019 12:13	Blank	Priority Organic Pollutants	Fluorene	0.027 U	ug/L	0.027	0.11
5/6/2019 12:13	Blank	Priority Organic Pollutants	Naphthalene	0.11 U	ug/L	0.11	0.43
5/6/2019 12:13	Blank	Priority Organic Pollutants	Phenanthrene	0.11 U	ug/L	0.11	0.43
5/6/2019 12:13	Blank	Priority Organic Pollutants	2,4-Dichlorophenol	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	Dimethyl phthalate	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.027 U	ug/L	0.027	0.11
5/6/2019 12:13	Blank	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	0.11 U	ug/L	0.11	0.43
5/6/2019 12:13	Blank	Priority Organic Pollutants	Nitrobenzene	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	Acenaphthylene	0.027 U	ug/L	0.027	0.11
5/6/2019 12:13	Blank	Priority Organic Pollutants	Di-n-octyl phthalate	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.027 U	ug/L	0.027	0.11
5/6/2019 12:13	Blank	Priority Organic Pollutants	N-Nitrosodimethylamine	2.2 U	ug/L	2.2	8.7
5/6/2019 12:13	Blank	Priority Organic Pollutants	Pentachlorophenol	0.54 U	ug/L	0.54	2.2
5/6/2019 12:13	Blank	Priority Organic Pollutants	2-Nitrophenol	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	Acenaphthene	0.027 U	ug/L	0.027	0.11
5/6/2019 12:13	Blank	Priority Organic Pollutants	Benzo(a)anthracene	0.027 U	ug/L	0.027	0.11
5/6/2019 12:13	Blank	Priority Organic Pollutants	Benzo(k)fluoranthene	0.027 U	ug/L	0.027	0.11
5/6/2019 12:13	Blank	Priority Organic Pollutants	Diethyl phthalate	2.2 U	ug/L	2.2	8.7
5/6/2019 12:13	Blank	Priority Organic Pollutants	Hexachlorobenzene	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	Isophorone	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	2,4-Dinitrotoluene	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	4-Nitrophenol	11 U	ug/L	11	43
5/6/2019 12:13	Blank	Priority Organic Pollutants	Anthracene	0.027 U	ug/L	0.027	0.11
5/6/2019 12:13	Blank	Priority Organic Pollutants	Benzidine	11 U	ug/L	11	43
5/6/2019 12:13	Blank	Priority Organic Pollutants	Benzo(b)fluoranthene	0.027 U	ug/L	0.027	0.11
5/6/2019 12:13	Blank	Priority Organic Pollutants	Hexachlorocyclopentadiene	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	Phenol	0.054 U	ug/L	0.054	0.22
5/6/2019 12:13	Blank	Priority Organic Pollutants	Pyrene	0.11 U	ug/L	0.11	0.43