Biological Assessment of Lynn Haven AWTF Bay County NPDES # FL0169978 Sampled April 8, 2024

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

All analytes in the effluent grab and most in the effluent composite samples complied with the Class III Water Quality Criteria for Marine Waters and effluent permit limits. Copper in the effluent composite sample exceeded Class III Water Quality Criterion for Marine Waters (Subsection 62-302.530(23), F.A.C.) and effluent permit limits. There were 18 organic constituents detected in the effluent grab sample.

Facility Overview

The Lynn Haven Advance Wastewater Treatment Facility (AWTF) 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.

The effluent is continuously discharged through a 1550 ft outfall pipe at a depth of 22 ft into St. Andrews Bay, a Class III Marine Water [waterbody identification (WBID) 1061D] (Figure 1). The outlet diffuser has 5 dual riser ports at 10-ft centers. There are four permitted dischargers to St. Andrew Bay WBID 1061D. Lynn Haven AWTF (FL0169978) and Millville WWTP (FL0170909) each have separate outfall pipes and discharge close to each other on the northside of the WBID. Military Point Regional AWTF (FL0167959) and Hollingshead Materials - TAFB Lagoon (FL0002631) discharge through the same outfall pipe on the south side of the WBID.

Receiving waters for this facility fall under the Estuary Specific Numeric Interpretation of the Narrative Nutrient Criteria (NNC) East Bay (west segment) of St. Andrews Bay. For this region, the NNC, expressed as annual geometric means, are 0.016 mg/L total phosphorus, 0.33 mg/L total nitrogen, and 3.9 µg/L chlorophyll *a* (Subparagraph 62-302.532(1)(n)1., F.A.C.). For Class III predominantly marine waters, the daily average dissolved oxygen (DO) saturation shall not be below 42 percent in more than 10 percent of the values (Subparagraph 62-302.533(2)(a)1., F.A.C.). This FYI event only provides single sample results. It should be noted that waterbody impairment assessments are based on longer-term data, and individual exceedances of a criterion do not indicate use impairment. http://ca.dep.state.fl.us/mapdirect/?focus=nutrientcriteria

Methods

Effluent samples were collected on April 8, 2024, as both grab and 24-hour time proportioned composite samples for outfall D-001. Grab and composite samples were collected at effluent sampling point EFF-02, located at the end of the UV Channel prior to the V-Notch Weir to a pit to the effluent pumping station. Grab samples for microbiological analyses were collected at EFA-02, located at the end of the chlorine contact chamber pipe located near the intersection of the 800 block of Illinois Avenue and West 8th Street. The permit specifies 16-hour flow proportioned composite samples for biological oxygen demand (BOD), total suspended solids (TSS), total nitrogen, total phosphorus, copper, and zinc; however, samplers were given permission by the permitting group to collect 24-hour time proportioned composite samples. The

permit specifies 24-hour flow proportioned composite samples for the bioassay tests. Chemical and biological comparisons were made between a Control Site (located approximately 2.9 miles southeast of the outfall in East Bay) and a Test Site (located approximately 1550 feet from shore and discharging at a depth of 22 feet south-southeast of the outfall in St. Andrew's Bay) (Figure 1). The Control Site is located in WBID 1061F and the Test Site in WBID 1061D, both of which are in the NNC's East Bay (west segment) of St. Andrew Bay. The Control Site was sampled on a slack tide and the Test Site was sampled on an outgoing tide. An acute definitive toxicity bioassay was performed for *Ceriodaphnia dubia* instead of the chronic whole effluent toxicity bioassay required by the permit due to organism health issues. Algal Growth Potential (AGP) analysis was not performed because of instrument malfunction. Total residual chlorine (TRC) was not measured due to chlorine meter failure.

Samples were collected by Mike Brumfield and Morgan Newsome (DEP Northwest district), Nathan Mulkey and Frank Butera (DEP Division of Environmental Assessment and Restoration Northwest Regional Operation Center). Analyses were performed by Wetlands Research Laboratory at University of West Florida in Pensacola, Eurofins Environmental Testing Southeast in Savannah, and DEP Laboratory in Tallahassee. The report was reviewed by District representatives and the Point Source Studies Review Committee (Lauren Gottfreid and Ben Nomann).

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.

Class III Water Quality Criteria for Fresh and Marine Waters are found in Chapter 62-302, F.A.C. All references to Rule 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.

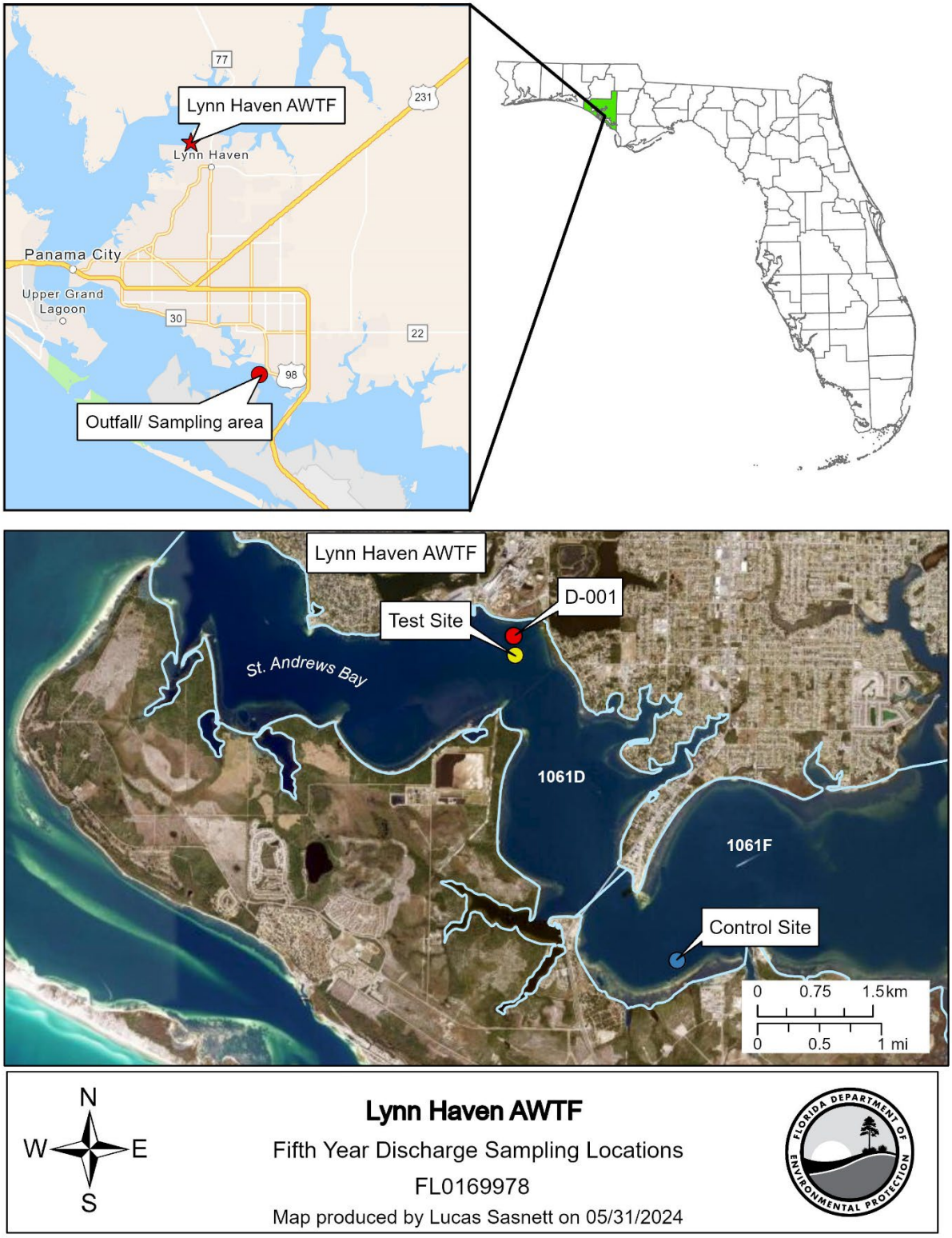


Figure 1. Map of Facility and Sampling Locations

Results

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

- All measured effluent water quality parameters complied with Class III Water Quality Criteria for Marine Waters and effluent permit limits.

- All water quality parameters measured at the Test and Control Sites complied with Class III Water Quality Criteria for Marine Waters.

Analytical Water Chemistry (See Table 2 and Appendix D)

- All water chemistry analytes detected in the effluent grab and composite samples complied with Class III Water Quality Criteria for Marine Waters and effluent permit limits.

- All water chemistry analytes detected in the Test and Control Site samples complied with Class III Water Quality Criteria for Marine Waters.

- For comparative purposes only, the effluent composite and effluent grab single sample values for total phosphorus and total nitrogen were greater than the Estuary Specific Numeric Nutrient Criteria (NNC) annual geometric mean values for the region.

- For comparative purposes only, Test and Control Site single sample values for total phosphorus were less than the Estuary Specific Numeric Nutrient Criteria (NNC) annual geometric mean values for the region. The single sample result for total nitrogen at the Control Site was above limit (Subparagraph 62-302.532(1)(n)1., F.A.C.).

- Nutrient measurements in the Test and Control Site samples were similar. There was no detectable nutrient enrichment from the effluent at the Test Site compared to the Control Site.

Microbiology (See Table 2 and Appendices B and D)

- For the effluent grab sample, *Escherichia coli* (*E. coli*) was incorrectly requested at the lab instead of enterococci as scheduled. The effluent permit limit is for enterococci. *E. coli* was not detected in the effluent grab sample.

- Fecal coliform was not detected in the effluent grab sample and therefore complied with the permit limit.

- Enterococci was not detected in the Test and Control Site samples and therefore complied with Class III Water Quality Criteria for Marine Waters. *E.coli* was not detected in the Test Site and Control Site samples.

Toxicity Whole Effluent Test (See Table 2 and Appendices B and D)

- Tests were performed April 9 through April 16, 2024.

- The sample was aerated for 15 minutes at a rate of approximately 100 bubbles per minute to decrease the DO from 10.3 mg/L to 8.7 mg/L.

- Chronic bioassay results are reported as the 25% Inhibition Concentration (IC25). An IC25 is the effluent concentration causing a 25% reduction in a biological response such as biomass or reproduction when compared to a control population. An IC25 of less than 100% in a chronic test may constitute exceedances of Subsection 62-302.200(5), Subsection 62-302.530(20) and/or facility permit limits.

- During the chronic definitive bioassay, the effluent composite sample IC25 for the fish, *Pimephales promelas*, was calculated as being greater than 100% effluent and therefore complied with effluent permit limits.

- Acute bioassay results are reported as the Concentration Lethal to 50% of the test organisms (LC50).

- Monthly reference toxicity tests indicated the chronic sensitivity of the *Ceriodaphnia dubia* were outside the lower control bound, therefore an acute definitive toxicity bioassay was performed for *Ceriodaphnia dubia* instead of the chronic whole effluent toxicity bioassay required by the permit.

- For the 96-hour acute definitive test, the calculated LC50 for the water flea, *Ceriodaphnia dubia*, was 100% effluent with 0% mortality in 100% sample. The effluent sample was not toxic to the water flea and therefore complied with effluent permit limits.

- For more information or to obtain copies of the toxicity bench sheets, please contact the Biology Laboratory at 850-245-8177.

Metals (See Table 3 and Appendix D)

- Copper in the effluent composite sample exceeded the Class III Water Quality Criterion for Marine Waters (Subsection 62-302.530(23), F.A.C.) and effluent permit limits.

- All metals in Test and Control Site samples complied with Class III Water Quality Criteria for Marine Waters.

Organic Constituents (See Table 4 and Appendix D)

- There are no effluent permit limits for organic constituents.

- Atrazine (herbicide), azoxystrobin (fungicide), chlorfenapyr (insecticide), dithiopyr (herbicide), fipronil (insecticide), fipronil desulfinyl (insecticide), fipronil sulfide (insecticide), fipronil sulfone (insecticide), fludioxonil (fungicide), flutolanil (fungicide), fluxapyroxad (fungicide), loratadine (antihistaminic), metribuzin (herbicide), oxadiazon (herbicide), prodiamine (herbicide), simazine (herbicide), sulfentrazone (herbicide), and tebuconazole (fungicide) were detected in the effluent grab sample.

- The effluent grab sample for azoxystrobin was J qualified due to internal standard recovery exceeding control limits.

Table 1. Measured field parameters

Effluent limits, Class III Water Quality Criteria for Marine Waters, and field parameters

Parameter	Units	Class III Criteria	Effluent Permit Limits	Effluent Grab EFF-02	Test Site	Control Site
Sample Depth	m	-	-	-	0.3	0.3
Temperature	C	-	-	20.6	20.5	20.4
pH	SU	6.5 - 8.5	6.5 - 8.5	6.93	8.18	8.19
Specific Conductance	µmhos/cm	-	-	568	35,350	33,438
Salinity	PPTh	-	-	0.3 c	22.33	21.03
Dissolved Oxygen	mg/L	-	≥ 6.0	-	8.17	8.43
Dissolved Oxygen	% saturation	≥ 42	-	81.6	104.9	105.9
Total Residual Chlorine	mg/L	≤ 0.01	Report	≤ 0.03[1]	-	-
Flow	MGD	-	≤ 2.5	1.4	-	-

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
c - Value is calculated
1 - Measurement taken in bioassay composite sample.

Table 2. Analytical water chemistry, microbiological, and toxicological data

Effluent limits, Class III Water Quality Criteria for Marine Waters, and analytical water chemistry, microbiological, and toxicological data

Analyte	Units	Class III Criteria	Effluent Permit Limits	Effluent Composite EFF-02	Effluent Grab EFF-02	Test Site	Control Site
Orthophosphate	mg P/L	-	-	-	0.44	0.005 I	0.004 U
Total Phosphorus	mg P/L	≤ 0.016 g	≤ 2.0 s, p_{16}	0.52	0.58	0.005 I	0.006 I
Total Ammonia Nitrogen	mg N/L	-	-	-	0.52	0.004 I	0.004 I
Un-ionized Ammonia (calculated salinity)	-	-	-	-	< 0.02 c	< 0.02 c	< 0.02 c
Nitrate and Nitrite	mg N/L	-	-	2.2	1.3	0.017	0.020
Total Kjeldahl Nitrogen	mg N/L	-	-	2.7	1.9	0.31 I	0.33 I
Organic Nitrogen	mg N/L	-	-	-	1.4 c	0.31 c	0.33 c
Total Nitrogen	mg N/L	≤ 0.33 g	≤ 9.0 s, p_{16}	4.9 c	3.2 c	0.33 c	0.35 c
Total Organic Carbon	mg C/L	-	-	-	7.9	4.5	5.0
Chlorophyll *a* - Corrected	µg/L	≤ 3.9 g	-	-	1.9 U	2.1 I	2.1 I
Phaeophytin	µg/L	-	-	-	2.0 U	1.0 U	1.0 U
CBOD, 5-day, N - inhibited	mg/L	-	≤ 12.6 s, p_{16}	6.7 J	-	2.0 U	2.0 U
Hardness	mg CaCO3/L	-	-	-	116 c	4,200 c	4,040 c
Total Suspended Solids	mg/L	-	≤ 15.0 s, p_{16}	12	-	3.0 I	9.0 I
Turbidity	NTU	≤ 29 t	-	-	2.3	0.70 I	0.75 I
Color (true)	PCU	-	-	-	28	14 A	17
Alkalinity	mg CaCO3/L	-	-	-	110 A	84 A	80
Chloride	mg Cl/L	-	-	-	83 A	13,000	12,000
Fluoride	mg F/L	≤ 5.0	-	-	0.47	0.77	0.73
Sulfate	mg SO4/L	-	-	-	44 A	1,800	1,700
Fecal Coliforms	CFU/100 mL	-	≤ 86 s (EFA-02)	-	10 U	2 UQ	2 UQ
Enterococci	MPN/100 mL	≤ 130[2]	≤ 35[2] (EFA-02)	-	-	10 U	10 U

Analyte	Units	Class III Criteria	Effluent Permit Limits	Effluent Composite EFF-02	Effluent Grab EFF-02	Test Site	Control Site
Escherichia coli	MPN/100 mL	-	-	-	10 U	10 U	10 U
Acute Bioassay - Water flea *(Ceriodaphnia dubia)*	% effluent	-	> 100 p	> 100	-	-	-
Chronic Bioassay - Fish (*Pimephales promelas)*	% effluent	-	> 100 p	> 100	-	-	-

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
c - Value is calculated
g - Value expressed as an annual geometric mean
p - permit limit for a 24-hour flow proportioned composite
p_{16} - permit limit for a 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
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J - Estimated value
Q - Sample held beyond normal holding time
U - Material analyzed for but not detected; value reported is the method detection limit
2 - If fewer than 10 samples are taken within a month for a given location, the Ten Percent Threshold Value (TPTV) is assessed as a single sample maximum (62-302.530(6)(c), F.A.C.)

Table 3. Analytical metals data

Effluent limits, Class III Water Quality Criteria for Marine Waters, and analytical metals data

Analyte	Units	Class III Criteria	Effluent Permit Limits	Effluent Composite EFF-02	Effluent Grab EFF-02	Test Site	Control Site
Aluminum	µg/L	≤ 1,500	-	-	65	56 I	61 I
Arsenic	µg/L	≤ 50	-	-	0.30	0.99	0.99
Cadmium	µg/L	≤ 8.8	-	-	0.020 U	0.080 U	0.080 U
Calcium	mg/L	-	-	-	27.5	263	253
Chromium, Total [3]	µg/L	≤ 50	-	-	0.40 U	4.0 U	4.0 U
Copper	µg/L	≤ 3.7	≤ 3.7 s, p_{16}	18 e	2.6	1.6 U	1.6 U
Iron	µg/L	≤ 300	-	-	98 I	90 U	90 U
Lead	µg/L	≤ 8.5	-	-	0.20 U	0.80 U	0.80 U
Magnesium	mg/L	-	-	-	11.4	861	827
Nickel	µg/L	≤ 8.3	-	-	0.93 I	5.0 U	5.0 U
Potassium	mg/L	-	-	-	10.4	263	239
Selenium	µg/L	≤ 71	-	-	0.20 U	2.0 U	2.0 U
Silver	µg/L	≤ 2.3	-	-	0.010 U	0.040 U	0.040 U
Sodium	mg/L	-	-	-	56.3	6,780	6,250
Zinc	µg/L	≤ 86	≤ 86.0 s, p_{16}	53	31	50 U	15 U

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
c - Value is calculated
e - The permit limit is for 16-hr FPC, and this value is from 24-hr FPC.
p^{16} – permit limit for 16-hour flow proportioned composite.
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
3 - Class III Marine Quality Criterion (62-302.530(19)(b), F.A.C.) is for chromium-VI

Table 4. Detected Organic Constituents

Effluent limits, Class III Water Quality Criteria for Marine Waters, and analytical organic and pesticide data

Analyte	Units	Class III Criteria	Effluent Permit Limits	Effluent Grab
Atrazine	ng/L	-	-	73
Azoxystrobin	ng/L	-	-	9.2 J
Chlorfenapyr	ng/L	-	-	1.2 I
Dithiopyr	ng/L	-	-	1.3 I
Fipronil	ng/L	-	-	44
Fipronil Desulfinyl	ng/L	-	-	1.3
Fipronil Sulfide	ng/L	-	-	4.1
Fipronil Sulfone	ng/L	-	-	2.9
Fludioxonil	ng/L	-	-	5.6
Flutolanil	ng/L	-	-	2.4
Fluxapyroxad	ng/L	-	-	0.36 I
Loratadine	ng/L	-	-	23
Metribuzin	ng/L	-	-	1.7 I
Oxadiazon	ng/L	-	-	1.3 I
Prodiamine	ng/L	-	-	0.32 I
Simazine	ng/L	-	-	8.3
Sulfentrazone	ng/L	-	-	8.9
Tebuconazole	ng/L	-	-	9.1

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J - Estimated value

Appendix A. Facility Summary

PART I: Information gathered prior to sampling event.	
Prepared By: **Mike Brumfield**	**Contact Number:** **(850) 595-0557**
Facility Name (as it appears on permit): **Lynn Haven AWTF**	**Former Names:**
NPDES Permit Number: **FL0169978**	**Permit Expiration Date:** **February 27, 2025**
Physical Address: **5th Street and Montana Ave Lynn Haven, FL 32444-2351**	
District: **Northwest**	**County:** **Bay**
Function of Facility: **Municipal wastewater treatment facility**	
Facility Type: **Domestic**	**Permitted Capacity (MGD):** **2.5 MGD**
Mean Flow for previous 12 months for all EXTERNAL outfalls listed in permit (list date range including months): **1.538 MGD**	
If applicable, Mean Flow for previous 12 months for REUSE outfall(s) (list date range including months): **1.15 MGD**	
Description of type of Discharge: **☒ Continuous ☐ Intermittent ☐ Seasonal ☐ Rainfall Dependent** **☐ Other, please specify:**	
• **FLW-01 Turbo Flow Meter (model Sensus W-5500) located at the de-chlorination facility located near the Sports Park (Hilltop Lane and Recreation Drive).** • **EFF-02 Composite and pH Effluent Sampling Point located at the end of the UV Channel prior to the V-Notch Weir to a pit to the Effluent Pumping Station.** • **EFA-02 Grab Sampling Point for Fecal Coliform, TRC, Giardia and Cryptosporidium at the end of the chlorine contact chamber pipe. Located near the intersection of 800 block of Illinois Avenue and West 8th Street.** • **EFA-03 Total Residual Chlorine continuous meter monitoring location at the effluent pump station at the WWTP.** • **EFD-01 D-001 Surface Water Monitoring Point located at the Sports Park (intersection of Hilltop Lane and Recreation Drive)** • **EFA-UV Calculate UV dosage.** • **SWI-LH01 LH-01 Ambient Monitoring station 30 deg-08 min-00.4 sec N, 85 deg-37 min-14.0 sec W** • **SWI-LH02 LH-02 Ambient Monitoring station 30 deg-06 min-34.5 sec N, 85 deg-36 min-53.1 sec W** • **SWI-LH03 LH-03 Ambient Monitoring station 30 deg-08 min-04.0 sec N, 85 deg-38 min-06.2 sec W**	
Description of Permitted Outfall(s): **An existing 2.5 MGD annual average daily flow discharge to St. Andrews Bay, East Bay (West Segment) (WBID# 1061D), Class III Marine waters, which is approximately 24 Inch diameter at 1550 feet in length and discharges at a depth of approximately 22 feet. Outlet Diffuser has 5 dual**	

riser ports at 10 feet centers. The point of discharge is located approximately at latitude 30°7' 55" N, longitude 85°37' 12" W.

Description of Treatment Process (if multiple discharge points, include a detailed map or diagram of facility):
Lynn Haven advance wastewater treatment facility (AWTF) is an existing treatment plant with a treatment capacity of capacity of 2.5 MGD annual average daily flow (AADF). The AWTF operates in the extended aeration treatment mode. The AWTF process components include pretreatment (mechanical bar screen vortex de-gritting unit), two (2) sequential batch reactors (1,365,000 gallons capacity each) operating in anoxic/aerobic biological treatment/settling mode, a post equalization tank (329,000 gallon capacity), dual (2) unit Schreiber Fuzzy Filter compressible media up-flow filtration process system with a design capacity of an average daily flow of 3.5 MGD including two blowers for backwashing and new canopy enclosure and turbidity meter, Intermediate level disinfection for D-001 is provided by either or a combination of a dual channel Trojan UV 4000 ultraviolet light disinfection units (each UV unit contains two (2) banks) with Allen Bradley SLC-5/05 programmable controller prior to a high-level disinfection system using sodium hypochlorite. The chlorine contact chamber is the effluent pipeline between the effluent pump station at the AWTF to the intersection of Illinois Avenue and 8th Street. A chlorine analyzer operates at the effluent Pump Station within the plant and another chlorine analyzer is positioned at the intersection of Illinois Avenue and 8th Avenue. A controlled and secured remote de-chlorination system (utilizing sulfur dioxide), prior to outfall discharge to St. Andrews Bay D-001, is located near the sports park. Biosolids from the SBR are wasted to four (4) aerobic digesters operating in series with a total capacity of 0.562 MG, associated blower building. Biosolids can be land applied without dewatering. Biosolids can be dewatered by a centrifuge with backup drying beds.
Wet weather storage for the Part III reclaimed water system includes a 1.0 MG reclaimed water storage tank (located at sports park), 11.0 MG unlined reclaimed water storage pond (located at the Nature Walk Golf Course). Facility has a 3.0 MG lined reject holding pond (located at a the AWTF) Documents attached to this permit include the Location Map, AWTF Site Plan, Off-Site Exhibit Sanitary Reuse Site Plan, Wastewater Service Area Map, Process Flow Schematic, St. Andrew Bay Ambient Monitoring Stations, and Ground Water Monitoring Well Locations for reference to the Lynn Haven AWTF Permit.

REUSE OR DISPOSAL:
Surface Water Discharge D-001: An existing 2.5 MGD annual average daily flow discharge to St. Andrews Bay, East Bay (West Segment) (WBID# 1061D), Class III Marine waters, which is approximately 24 Inch diameter at 1550 feet in length and discharges at a depth of approximately 22 feet. Outlet Diffuser has 5 dual riser ports at 10 feet centers. The point of discharge is located approximately at latitude 30°7' 55" N, longitude 85°37' 12" W.

Land Application R-001: An existing 1.5 MGD annual average daily flow permitted capacity slow-rate public access system. The public access quality reclaimed water will be pumped to a 1 MG covered tank located at the Sports Park and Recreation Center and to a 11 MG unlined storage pond at Nature Walk Golf Course wet weather location. R-001 is a reuse system which consists of General Reuse Service Area

PART I: Continued

List <u>current</u> 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)

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow (D-001)	MGD	Max Max	2.5 Report	Annual Average Monthly Average	Continuous	Recording Flow Meter with Totalizer	FLW-01	See I.A.4
BOD, Carbonaceous 5 day, 20C (D-001)	mg/L	Max Max Max Max	6.3 6.3 9.45 12.6	Annual Average Monthly Average Weekly Average Single Sample	Weekly	16-hr FPC	EFF-02	See I.A.6
Solids, Total Suspended (D-001)	mg/L	Max Max Max Max	7.5 7.5 11.25 15.0	Annual Average Monthly Average Weekly Average Single Sample	Weekly	16-hr FPC	EFF-02	See I.A.6
Nitrogen, Total	mg/L	Max Max Max Max	4.5 4.5 6.75 9.0	Annual Average Monthly Average Weekly Average Single Sample	Weekly	16-hr FPC	EFF-02	See I.A.13
Phosphorus, Total (as P)	mg/L	Max Max Max Max	1.0 1.0 1.5 2.0	Annual Average Monthly Average Weekly Average Single Sample	Weekly	16-hr FPC	EFF-02	
pH	s.u.	Min Max	6.5 8.5	Single Sample Single Sample	Continuous	Meter	EFF-02	See I.A.3

			Effluent Limitations		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Coliform, Fecal (D-001)	#/100mL	Max Max Max Max	14 14 43 86	Annual Average Monthly Median 90th Percentile Single Sample	Weekly	Grab	EFA-02	See I.A.7 and I.A.12
Enterococci	#/100mL	Max Max	35 130	Monthly Geometric Mean 90th Percentile	Weekly	Grab	EFA-02	See I.A.11 and I.A.12

Chlorine, Total Residual (For Disinfection)	mg/L	Min	4.0	Single Sample	Continuous	Meter	EFA-03	See I.A.3, I.A.8 and I.A.9
Chlorine, Total Residual (End CCC Pipe)	mg/L	Min	Report	Single Sample	Continuous	Meter	EFA-02	
Chlorine, Total Residual (For Dechlorination)	mg/L	Max	0.01	Single Sample	Daily; 24 hours	Grab	EFD-01	
Ultraviolet Light Dosage (For Disinfection)	mW-s/sqcm	Min	43	Single Sample	Continuous	Calculated	EFA-UV	I.A.8, I.A.12 & 13
Oxygen, Dissolved (DO)	mg/L	Min	6.0	Single Sample	Daily; 24 hours	Grab	EFF-02	
Copper, Total Recoverable	µg/L	Max	3.7	Single Sample	Monthly	16-hr FPC	EFF-02	
Zinc, Total Recoverable	µg/L	Max	86.0	Single Sample	Quarterly	16-hr FPC	EFF-02	
Nitrogen, Total	mg/L	Max	Report	Single Sample	Quarterly	Grab	SWI-LH01 SWI-LH02 SWI-LH03	See I.A.15
Phosphorus, Total (as P)	mg/L							
Temperature (C), Water	Deg C							
Oxygen, Dissolved Percent Saturation	percent							
Chronic Whole Effluent Toxicity, 7-Day IC25 (Ceriodaphnia dubia)	percent	Min	100	Single Sample	Semi-Annually; twice per year	24-hr FPC	EFF-02	See I.A.10
Chronic Whole Effluent Toxicity, 7-Day IC25 (Pimephales promelas)	percent	Min	100	Single Sample	Semi-Annually; twice per year	24-hr FPC	EFF-02	See I.A.10

PART I: Continued

Receiving Waters: **St. Andrews Bay**	**Classification (indicate whether fresh or marine):** **Class III Marine**

Toxicity Test Requirements (routine and/or additional test language, test species, salinity adjustment, etc.):

1. **The permittee shall comply with the following requirements to evaluate chronic whole effluent toxicity of the discharge from outfall D-001.**
   a. **Effluent Limitation**
      (1) **In any routine or additional follow-up test for chronic whole effluent toxicity, the 25 percent inhibition concentration (IC25) for reproduction or growth shall not be less than 100% effluent. [Rules 62- 302.530(61) and 62-4.241(1)(b), F.A.C.]**
      (2) **For acute whole effluent toxicity, the 96-hour LC50 shall not be less than 100% effluent in any test. [Rule 62-302.500(1)(a)4. and 62-4.241(1)(a), F.A.C.]**
   b. **Monitoring Frequency**
      (1) **Routine toxicity tests shall be conducted once every six months, the first starting within semi-annual schedule and lasting for the duration of this permit.**
   c. **Sampling Requirements**
      (1) **For each routine test or additional follow-up test conducted, a total of three flow proportional 24-hr composite samples of final effluent shall be collected and used in accordance with the sampling protocol discussed in EPA-821-R-02-013, Section 8.**
      (2) **The first sample shall be used to initiate the test. The remaining two samples shall be collected according to the protocol and used as renewal solutions on Day 3 (48 hours) and Day 5 (96 hours) of the test.**
      (3) **Samples for routine and additional follow-up tests shall not be collected on the same day.**
   d. **Test Requirements**
      (1) **Routine Tests: All routine tests shall be conducted using a control (0% effluent) and a minimum of five test dilutions: 100%, 50%, 25%, 12.5%, and 6.25% final effluent.**
      (2) **The permittee shall conduct a daphnid, Ceriodaphnia dubia, Survival and Reproduction Test and a fathead minnow, Pimephales promelas, Larval Survival and Growth Test, concurrently.**
      (3) **All test species, procedures and quality assurance criteria used shall be in accordance with Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, 4th Edition, EPA-821-R-02-013. Any deviation of the bioassay procedures outlined herein shall be submitted in writing to the Department for review and approval prior to use. In the event the above method is revised, the permittee shall conduct chronic toxicity testing in accordance with the revised method.**

The control water and dilution water shall be moderately hard water as described in EPA-821-R-02- 013, Section 7.2.3.

Administrative or Consent Orders (date executed, specific requirements, interim limit dates-if applicable, etc.):

There are no open/executed Administrative or Consent Orders

Facility Mixing Zone Details (if applicable):



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

Date	Parameter and Units		Limit	Result
1/31/2024	Coliform, Fecal, % less than detection	percent	75	0
10/31/2023	Coliform, Fecal, % less than detection	percent	75	74
6/30/2023	Coliform, Fecal, % less than detection	percent	75	55
5/31/2023	Coliform, Fecal, % less than detection	percent	75	35
3/31/2023	Coliform, Fecal	#/100mL	14	101.3

3/31/2023	Coliform, Fecal	#/100mL	25	1733
3/31/2023	Coliform, Fecal	#/100mL	86	1732.9
4/30/2023	Coliform, Fecal	#/100mL	14	101.8
4/30/2023	Coliform, Fecal	#/100mL	25	70
5/31/2023	Coliform, Fecal	#/100mL	14	159.5
5/31/2023	Coliform, Fecal	#/100mL	25	2420
5/31/2023	Coliform, Fecal	#/100mL	43	2419.6
5/31/2023	Coliform, Fecal	#/100mL	86	2419.6
6/30/2023	Coliform, Fecal	#/100mL	14	159.4
6/30/2023	Coliform, Fecal	#/100mL	25	2419.6
6/30/2023	Coliform, Fecal	#/100mL	43	2419.6
6/30/2023	Coliform, Fecal	#/100mL	86	2419.6
6/30/2023	Enterococci	#/100mL	130	1986
7/31/2023	Coliform, Fecal	#/100mL	14	452.7
7/31/2023	Coliform, Fecal	#/100mL	25	2419.6
7/31/2023	Coliform, Fecal	#/100mL	43	1899.3
7/31/2023	Coliform, Fecal	#/100mL	86	2419.6
7/31/2023	Enterococci	#/100mL	130	1175
8/31/2023	Coliform, Fecal	#/100mL	14	467.5
8/31/2023	Coliform, Fecal	#/100mL	25	179
8/31/2023	Coliform, Fecal	#/100mL	86	178.5
9/30/2023	Coliform, Fecal	#/100mL	14	481.2
9/30/2023	Coliform, Fecal	#/100mL	25	2420
9/30/2023	Coliform, Fecal	#/100mL	43	107.1
9/30/2023	Coliform, Fecal	#/100mL	86	2419.6
9/30/2023	Enterococci	#/100mL	130	387
10/31/2023	Coliform, Fecal	#/100mL	14	569.4
10/31/2023	Coliform, Fecal	#/100mL	25	1732.9
10/31/2023	Coliform, Fecal	#/100mL	43	980.4
10/31/2023	Coliform, Fecal	#/100mL	86	1732.9
11/30/2023	Coliform, Fecal	#/100mL	14	695.8
11/30/2023	Coliform, Fecal	#/100mL	25	2420
11/30/2023	Coliform, Fecal	#/100mL	43	1801.6
11/30/2023	Coliform, Fecal	#/100mL	86	2419.6
11/30/2023	Enterococci	#/100mL	130	1012
12/31/2023	Coliform, Fecal	#/100mL	14	614
1/31/2024	Coliform, Fecal	#/100mL	14	201.5

2/29/2024	Coliform, Fecal	#/100mL	14	184.8
3/31/2024	Coliform, Fecal	#/100mL	14	153.8
4/30/2024	Coliform, Fecal	#/100mL	14	152.4
5/31/2024	Coliform, Fecal	#/100mL	14	109.2

Describe previous FYI and WQBEL study:
A CSI was conducted on August 26, 2021. Case study can be found at:
https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=38.1034625.1]&[profile=Discovery_Compliance]

Describe previous or current Enforcement Actions (including WLs):
WL from previous inspection conducted on January 30, 2024.

Describe any violations or problems noted in previous inspection:
Numerous violations and problems were noted in previous inspection. Inspection report
https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=38.1271977.1]&[profile=Discovery_Compliance]

Discuss whether DMR trends within previous five years are improving or declining:

DMR trends are declining.

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: **4/7/2024**	**Sampler(s):** **Mike Brumfield, Morgan Newsome**
Temperature (Deg C): **5.4**	**pH (SU):** **6.93**
Dissolved Oxygen (mg/L): **81.6**	**Conductivity (umhos/cm):** **568**
Total Residual Chlorine (mg/L): **Did not measure**	**Total Residual Chlorine - after Disinfection (mg/L):** **Did not measure**
Method of Chlorination: **Sodium hypochlorite**	**Method of De-chlorination:** **Sulfur dioxide**
Flow During Sample Collection for each outfall(MGD): **1.408**	
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): **1.538 MGD**	
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: Chlorine meter during the time of inspection provided an error code and DEP personnel were unable to successfully test for TRC.	

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 (Chapter 62-302, F.A.C.) and facility permit limits.

- **Toxicity Bioassays**

  Greater than 50% mortality in an acute toxicity test may constitute an exceedance of Paragraph 62-302.500(1)(a) and/or facility permit limits. A 25% inhibition concentration (IC25) is the effluent concentration causing a 25% reduction in a biological response such as biomass or reproduction when compared to a control population. An IC25 of less than 100% in a chronic test may constitute exceedances of Subsection 62-302.530(20), Subsection 62-302.530(62) and/or facility permit limits. A no observed effect concentration (NOEC) less than 100% effluent in a chronic test may constitute an exceedance of Subsection 62-302.530(62) and/or facility permit limits. Standard reference toxicant (SRT) tests are conducted monthly to ensure quality in toxicity testing.

- **Bacteriological Testing**

  High levels of fecal indicator bacteria may constitute an exceedance of Subsection 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.

- **Definition of Qualifiers** (Rule 62-160.700, F.A.C.)

  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

RQ-2024-03-25-37	**Collected By**: Frank Butera, Nathan Mulkey
Customer: FDEP	**Field Report Prepared by**: Frank Butera, Nathan Mulkey
Project ID: SPPROJECTS	**Sampling Agency**: FDEP
WIN ID/Field ID:  **WIN ID/Field ID:** Control	**Comments**: Microbiology sample(s) submitted to contract laboratory. BOD sample(s) submitted to contract laboratory.
Location: East Bay east of St. Andrew Bay	
Matrix: Marine	(Check One) ✓Grab ☐ Composite

Date and Time {CEN}	DO (mg/L)	DO (%SAT)	Temp. °C	pH	Sample Depth (m)	Secchi Depth	Total Depth (m)	Sp COND (µmhos /cm)	Salinity (PPTh)
4/8/2024 1040	8.43	105.9	20.4	8.19	0.3	2.4	6.3	33438	21.03

Parameter Suite	Parameter Methods	Preservation	pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)	X W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP Lot # 3193140 Exp: 07/31/2024	x Ice x H2SO4*	<2	1	C
Metals (P-500ML)	x W-ICPMS x W-ICP x W-HARD Lot # 3340030 Exp: 12/13/2024	x Ice x HNO3*	<2	1	C
Filtered Nutrients (P125ML)	x W-PO4-F x Field Filtered 0.45 um Filter Filter Lot # 17460495 Syringe Lot # 1363514	x Ice		1	C
BOD (BP-1L)	x OV-BODUNIN	x Ice			
Chlorophyll (BP-1L)	x CHLSUITE-W	x Ice		1	C
Physical/Aggregate (Fresh) (P-1L)	X Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W- TDS	x Ice		1	C
Physical/Aggregate (Marine) (P-1L)	Alkalinity / W-F / W-TSS / TURBIDITY	Ice			
Macroinvertebrates (PJ-2L)	MI-FW-QLDC **Formalin Lot #**	Formalin			
Periphyton (PT-50ML)	ALGAE-ID	Ice			
Microbiology (Contract Lab Bottle)	X E Coli X F Coli X Enterococci X Contract Lab	x Ice		3	C
Molecular (QPCR-P-500ML)	PCR-HF183 PCR-BacR PCR-DG3 PCR-GULL2 PCR-GFD	Ice			
Tracers (BG-500ML)	X W-E8321-DI x W-E8321-MS	x Ice		1	C
Pesticides (BG-500ML) (BG-1L)	W-E8321-DI W-E8321-MS W-PSNP-TQ W-PCL-TQ-R W-CARB-AA (5 ml of MCAA Buffer Solution) W-CT-CL-R W-TR-SQ-R W-PCB-TQ-R	Ice **MCAA Exp.**	**MCAA Lot#**		
Phytoplankton (BP-1L)	DTY-QN-C PKD-QN-BV	Ice			
DOC (P-500ML)	W-DOC Field Filtered 0.45 um Filter **Acid Preservative Expiration Date** **Acid Preservative Lot Number**	Ice H2SO4*	<2		

Page **3** of **3**

RQ-2024-03-25-37	**Collected By:** Frank Butera, Nathan Mulkey
Customer: FDEP	**Field Report Prepared by:** Frank Butera, Nathan Mulkey
Project ID: SPPROJECTS	**Sampling Agency:** FDEP
WIN ID/Field ID:  **WIN ID/Field ID:** Test	**Comments:** Microbiology sample(s) submitted to contract laboratory. BOD sample(s) submitted to contract laboratory.
Location: Lynn Haven WWTF Outfall St. Andrew Bay	
Matrix: Marine	(Check One) ✓Grab ☐ Composite

Date and Time {CEN}	DO (mg/L)	DO (%SAT)	Temp. °C	pH	Sample Depth (m)	Secchi Depth	Total Depth (m)	Sp COND (µmhos /cm)	Salinity (PPTh)
4/8/2024 1125	8.27	104.9	20.5	8.18	0.3	2.9	6.7	35350	22.33

Parameter Suite	Parameter Methods	Preservation	pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)	X W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP Lot # 3193140 Exp: 07/31/2024	X Ice X H2SO4*	<2	1	C
Metals (P-500ML)	X W-ICPMS X W-ICP X W-HARD Lot # 3340030 Exp: 12/13/2024	X Ice X HNO3*	<2	1	C
Filtered Nutrients (P125ML)	X W-PO4-F X Field Filtered 0.45 um Filter Filter Lot # 17460495 Syringe Lot # 1363514	X Ice		1	C
BOD (BP-1L)	X OV-BODUNIN	X Ice			
Chlorophyll (BP-1L)	X CHLSUITE-W	X Ice		1	C
Physical/Aggregate (Fresh) (P-1L)	X Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W- TDS	X Ice		1	C
Physical/Aggregate (Marine) (P-1L)	Alkalinity / W-F / W-TSS / TURBIDITY	Ice			
Macroinvertebrates (PJ-2L)	MI-FW-QLDC Formalin Lot #	Formalin			
Periphyton (PT-50ML)	ALGAE-ID	Ice			
Microbiology (Contract Lab Bottle)	X E Coli X F Coli X Enterococci X Contract Lab	X Ice		3	C
Molecular (QPCR-P-500ML)	PCR-HF183 PCR-BacR PCR-DG3 PCR-GULL2 PCR-GFD	Ice			
Tracers (BG-500ML)	X W-E8321-DI X W-E8321-MS	X Ice		1	C
Pesticides (BG-500ML) (BG-1L)	W-E8321-DI W-E8321-MS W-PSNP-TQ W-PCL-TQ-R W-CARB-AA (5 ml of MCAA Buffer Solution) W-CT-CL-R W-TR-SQ-R W-PC6-TQ-R	Ice MCAA Exp.	MCAA Lot#		
Phytoplankton (BP-1L)	DTY-QN-C PKD-QN-BV	Ice			
DOC (P-500ML)	W-DOC Field Filtered 0.45 um Filter Acid Preservative Expiration Date Acid Preservative Lot Number	Ice H2SO4*	<2		

SAMPLE TRANSMITTAL FORM
Document Reference # 05.1.0

Project: FDEP
Laboratory: Wetlands Research Laboratory
Sampler's intials :
Method of transport: on ice by hand
Page 1 of 1
Samples delivered by: MIKE BRUMFIELD of FDEP
Date/Time: 4/8/24 1045 1354
Sample received by: of WRL
Date/Time: 04/08/24 1354
4/8/24

Lab ID	Sample ID	Matrix[1]	Type[2]	Container Type	Analyses Requested	Preservative	Sample (°C)[3]	Sampling Date/Time
24-52647	EFA-02 (FL0169978 1548/1602)	WW	G	Sterile plastic	*E. coli* (QT) and Fecal Coliforms (QT)	ice/$Na_2S_2O_3$	4.7	4/8/24/0915

Comments: Sample Container lot# L213147
RQ-2024-03-25-37
FDEP17 FL0169978 1548/1602

Contact organization FDEP
Contact name MIKE BRUMFIELD
Phone: (850) 595-0557
Address 160 Governmental Center, suite 308, Pensacola, FL 32502
Sampler's name: MIKE BRUMFIELD

[1]Matrix examples: SW = surface water, PW = pore water, GW = ground water, FW = Freshwater, MW = Marine Water, BW = Brackish Water, WW = Wastewater S = soil/sediment, Other X =
[2]Type codes: G = grab, C = composite, X =
[3] Recorded using IRT-2

SAMPLE TRANSMITTAL FORM
Document Reference # 05.1.0

Project: FDEP
Laboratory: Wetlands Research Laboratory
Sampler's intials : NM
Method of transport: on ice by hand
Page 1 of 1
Samples delivered by: [illegible] of FDEP
Date/Time: 4/8/24 1446
Sample received by: [illegible] of WRL
Date/Time: 4/8/24 1446

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
24-52653	Control East Bay	SW/MW	G	Sterile plastic	Enterolert 24-QT / E coli	ice/$Na_2S_2O_3$	4.9	4/8/24/1040
24-52654	Test Lynn Haven Outfall	SW/MW	G	Sterile plastic	Enterolert 24-QT / E coli	ice/$Na_2S_2O_3$	4.9	4/8/24/1125

Comments: **Sample Container lot#** L21347 PO # C1E884 Surface water, no chlorine expected
RQ -2024- 03-25-57 NOTE: FL0169978 City of Lynn Haven WWTF #4/8/2024 Sylvia
Contact organization FDEP Contact name: ~~Stephen Slade~~ Nathan Mistkey
Address 160 Governmental Center, suite 308, Pensacola, FL 32502 Phone: 850-595-8300
Sampler's name: Nathan Mistkey
[1]Matrix examples: SW = surface water, PW = pore water, GW = ground water, FW = Freshwater, MW = Marine Water, BW = Brackish Water, S = soil/sediment, Other X =
[2]Type codes: G = grab, C = composite, X =
[3] Recorded using IRT-2

Wetlands Research Laboratory\Data\DEAR\WQAP\Regional Operation Centers\NW ROC\TMDL\WBID 2772W\Field Sheets and Labels\Shalimar Boat Run (754 843)\Bacteria CoC\UWF_Sample Transmittal Form

Request Number: RQ-2024-03-25-37

FYI5 Lynn Haven AWTF (FL0169978)

Customer: NW-DIST

Project ID: FYI5

Florida Department of Environmental Protection
Central Laboratory Submittal Form

last revised Jan 25, 2018

Requester: Benjamin Nomann

Field Report Prepared By: MIKE BRUMFIELD

Collected By: MIKE BRUMFIELD MORGAN NEWSOME

Sampling Agency: FDEP

Location: LYNN HAVEN AWTF	☒ Comp ☐ Grab	Collection (comp begin or grab) Date 04/07/24 Time 0850	Eastern Central	Composite end Date 4/8/24 Time 0851				Bottle Group(s) (See pg 2): B
Field ID: EFF-02	Matrix (type, e.g., Salt, Fresh, etc): COMPOSITE EFFLUENT		Diss. Oxygen: N/A ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)				
WIN/STORET #	Temp (C): 5.4	pH: N/A	Sample Depth: N/A ☐ ft ☐ m	Sp. Conductance (umho/cm): N/A				
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments: SAMPLES COLLECTED AT 0900 SAMPLES COLLECTED USING FACILITY SAMPLER					
Location: LYNN HAVEN AWTF	☐ Comp ☒ Grab	Collection (comp begin or grab) Date 4/8/24 Time 0915	Eastern Central	Composite end Date N/A Time				Bottle Group(s): A
Field ID: EFF-2	Matrix (type, e.g., Salt, Fresh, etc): FRESH EFFLUENT		Diss. Oxygen: 81.6 ☐ mg/L ☒ % sat	Total Res. Chlorine (mg/L): N/A				
WIN/STORET #	Temp (C): 20.6	pH: 6.93	Sample Depth: N/A ☐ ft ☐ m	Sp. Conductance (umho/cm): 568				
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt): N/A	Comments: GRAB SAMPLES TAKEN AT EFF-02					
Location: LYNN HAVEN AWTF	☐ Comp ☒ Grab	Collection (comp begin or grab) Date 4/8/24 Time 0930	Eastern Central	Composite end Date N/A Time N/A				Bottle Group(s): D
Field ID: FIELD BLANK	Matrix (type, e.g., Salt, Fresh, etc): FRESH DI WATER		Diss. Oxygen: N/A ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L): N/A				
WIN/STORET #	Temp (C): N/A	pH: N/A	Sample Depth: N/A ☐ ft ☐ m	Sp. Conductance (umho/cm): N/A				
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments: COLLECTED NEAR EFF-02					
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
MIKE BRUMFIELD	4/8/24 11:30AM	FEDEX		VK	4.9.24 0858

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
TASK ASSIGNMENT/NOTIFICATION FORM: LAB145

Contract Manager: Linda Allen/Devan Cobb (850)-245-8084 / (850) 245-8078
2600 Blair Stone Rd., MS 6512
Tallahassee, FL 32399-2400

Contractor: Eurofins Environmental Testing Southeast, LLC
5102 LaRoche Ave
Savannah, GA 31404
ATTN: Noel Savoie

DEP Approval By: Devan R. Cobb-Williams Contractor Approval By: Noel Savoie
Project Manager

Contractor Representatives Contacted: Noel Savoie

Date: 3/6/2024
Means of Contact: Email

Task Assignment Number: OV541 Maximum Cost: **$83.00** Turnaround Time: 5 BD

Sample Delivery Date: 4/9/2024

Project Name/Description:
RQ-2024-03-25-37;FYI5 Lynn Haven AWTF (FL0169978)

Deliverable Number/ Parameter Group/ Method	Sample Matrix	# of Samples	# of Containers	DEP ID #	Unit Cost	% Mark-up (if any)	Cost
Quote/OV-CBOD-IN CBOD, nitrogen-inhibited 5210B-2011	W	2	2		$39.00		$78.00
217/Sample Disposal Fee		2			$2.50		$5.00
						Total:	**$83.00**

Total Number of Containers Shipped: 3 BOD

670-37812 Chain of Custody

QC Instructions:

Comments: Quote #

Samples released to Contract Lab by: _____ Date/Time: 4/8/24 1600

Delivery Method: FedEx Shipping

Samples Accepted by: MC Date/Time 4/9/24 915

* **Please sign and return by email to** Linda.S.Allen@FloridaDEP.gov and Devan.R.Cobb@dep.state.fl.us

1-6/1-6 5-86°

Page 14 of 19

4/22/2024

Request Number: RQ-2024-03-25-37

FYI5 Lynn Haven AWTF (FL0169978)

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: Benjamin Nomann

Field Report Prepared By: MIKE BRUMFIELD

Collected By: MIKE BRUMFIELD, MORGAN NEWSOME

Sampling Agency: FDEP

Location: LYNN HAVEN AWTF	☒ Comp ☐ Grab	Collection (comp begin or grab) Date 04/8/24 4/7/24 Time 0850	Eastern Central	Composite end Date 4/8/24 Time 0851	Bottle Group(s) (See pg 2): B								
Field ID: EFF-02	Matrix (type, e.g., Salt, Fresh, etc): FRESH EFFLUENT			Diss. Oxygen: N/A ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L): N/A								
WIN/STORET #	Temp (C): 5.4	pH: N/A	Sample Depth: N/A ☐ ft ☐ m	Sp. Conductance (umho/cm): N/A									
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments: SAMPLES COLLECTED AT 0900 USED FACILITY COMPOSITE SAMPLER										
Location: East Bay Control	☐ Comp ☒ Grab	Collection (comp begin or grab) Date 4/8/24 Time 1040	Eastern Central	Composite end Date Time	Bottle Group(s): C								
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: Lynn Haven WWTF at Hall Test	☐ Comp ☒ Grab	Collection (comp begin or grab) Date 4/8/24 Time 1125	Eastern Central	Composite end Date Time	Bottle Group(s): C								
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
MIKE BRUMFIELD	4/8/24 1130	FED EX			

Appendix D. Chemical Analysis of Effluent and Receiving Water

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/8/2024 9:51	EFF-02 Composite	Overflow	Carbonaceous Biochemical Oxygen Demand	6.7 J	mg/L	2.0	2.0
4/8/2024 9:51	EFF-02 Composite	Toxicology	Bioassay-Acute-Def-FW-C.dubia, LC50	100 L	LC50		
4/8/2024 9:51	EFF-02 Composite	Toxicology	Bioassay-Chron-Def-FW-Fish, IC25	100 L	IC25		
4/8/2024 9:51	EFF-02 Composite	Toxicology	Bioassay-Chron-Def-FW-Fish, NOEC	100	NOEC		
4/8/2024 9:51	EFF-02 Composite	Metals	Copper	18.0	µg/L	0.40	0.80
4/8/2024 9:51	EFF-02 Composite	Metals	Zinc	53	µg/L	5.0	20
4/8/2024 9:51	EFF-02 Composite	Nutrients	TSS	12	mg/L	2.0	10
4/8/2024 9:51	EFF-02 Composite	Nutrients	Total-P	0.52	mg P/L	0.010	0.050
4/8/2024 9:51	EFF-02 Composite	Nutrients	NO2NO3-N	2.2	mg N/L	0.040	0.10
4/8/2024 9:51	EFF-02 Composite	Nutrients	Kjeldahl Nitrogen	2.7	mg N/L	0.080	0.20
4/8/2024 9:51	EFF-02 Composite	Nutrients	Temperature	5.4	C		
4/8/2024 10:15	EFF-02 Grab	Chlorophyll/Grain Size/BOD	Phaeophytin-a	2.0 U	µg/L	2.0	6.1
4/8/2024 10:15	EFF-02 Grab	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Uncorrected	1.4 U	µg/L	1.4	4.0
4/8/2024 10:15	EFF-02 Grab	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	1.9 U	µg/L	1.9	5.6
4/8/2024 10:15	EFF-02 Grab	Overflow	Escherichia Coli-Quanti-Tray	10 U	MPN/100 mL	10	10
4/8/2024 10:15	EFF-02 Grab	Overflow	Fecal Coliform-Quanti-Tray	10 U	MPN/100 mL	10	10
4/8/2024 10:15	EFF-02 Grab	Metals	Iron	98 I	µg/L	30	120
4/8/2024 10:15	EFF-02 Grab	Metals	Lead	0.20 U	µg/L	0.20	0.40
4/8/2024 10:15	EFF-02 Grab	Metals	Aluminum	65	µg/L	5.0	20
4/8/2024 10:15	EFF-02 Grab	Metals	Cadmium	0.020 U	µg/L	0.020	0.080
4/8/2024 10:15	EFF-02 Grab	Metals	Sodium	56.3	mg/L	0.50	2.0
4/8/2024 10:15	EFF-02 Grab	Metals	Chromium	0.40 U	µg/L	0.40	1.6
4/8/2024 10:15	EFF-02 Grab	Metals	Potassium	10.4	mg/L	0.30	1.2
4/8/2024 10:15	EFF-02 Grab	Metals	Arsenic	0.30	µg/L	0.050	0.20
4/8/2024 10:15	EFF-02 Grab	Metals	Magnesium	11.4	mg/L	0.040	0.16
4/8/2024 10:15	EFF-02 Grab	Metals	Zinc	31	µg/L	5.0	20
4/8/2024 10:15	EFF-02 Grab	Metals	Selenium	0.20 U	µg/L	0.20	0.80
4/8/2024 10:15	EFF-02 Grab	Metals	Nickel	0.93 I	µg/L	0.50	2.0
4/8/2024 10:15	EFF-02 Grab	Metals	Silver	0.010 U	µg/L	0.010	0.040
4/8/2024 10:15	EFF-02 Grab	Metals	Copper	2.55	µg/L	0.40	0.80
4/8/2024 10:15	EFF-02 Grab	Metals	Calcium	27.5	mg/L	0.075	0.30
4/8/2024 10:15	EFF-02 Grab	Nutrients	Turbidity	2.3	NTU	0.10	1.0
4/8/2024 10:15	EFF-02 Grab	Nutrients	NO2NO3-N	1.3	mg N/L	0.040	0.10

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/8/2024 10:15	EFF-02 Grab	Nutrients	Sulfate	44 A	mg SO4/L	0.40	1.0
4/8/2024 10:15	EFF-02 Grab	Nutrients	Fluoride	0.47	mg F/L	0.025	0.10
4/8/2024 10:15	EFF-02 Grab	Nutrients	Color (true)	28	PCU	2.5	6.0
4/8/2024 10:15	EFF-02 Grab	Nutrients	Total-P	0.58	mg P/L	0.010	0.050
4/8/2024 10:15	EFF-02 Grab	Nutrients	Chloride	83 A	mg Cl/L	0.40	1.0
4/8/2024 10:15	EFF-02 Grab	Nutrients	Total Alkalinity	111 A	mg CaCO3/L	0.65	2.5
4/8/2024 10:15	EFF-02 Grab	Nutrients	Organic Carbon	7.9	mg C/L	0.50	1.0
4/8/2024 10:15	EFF-02 Grab	Nutrients	Kjeldahl Nitrogen	1.9	mg N/L	0.080	0.20
4/8/2024 10:15	EFF-02 Grab	Nutrients	O-Phosphate-P	0.44	mg P/L	0.080	0.20
4/8/2024 10:15	EFF-02 Grab	Nutrients	Ammonia-N	0.52	mg N/L	0.20	0.50
4/8/2024 10:15	EFF-02 Grab	Pesticides	Propargite	0.91 U	ng/L	0.91	4.6
4/8/2024 10:15	EFF-02 Grab	Pesticides	Pyriproxyfen	0.29 U	ng/L	0.29	1.8
4/8/2024 10:15	EFF-02 Grab	Pesticides	Atrazine Desethyl	1.5 U	ng/L	1.5	7.4
4/8/2024 10:15	EFF-02 Grab	Pesticides	Carbophenothion	0.57 U	ng/L	0.57	2.9
4/8/2024 10:15	EFF-02 Grab	Pesticides	Coumaphos	1.2 U	ng/L	1.2	6.3
4/8/2024 10:15	EFF-02 Grab	Pesticides	Demeton	4.0 U	ng/L	4.0	20
4/8/2024 10:15	EFF-02 Grab	Pesticides	Fipronil Desulfinyl	1.3	ng/L	0.11	0.57
4/8/2024 10:15	EFF-02 Grab	Pesticides	Iprodione	0.57 U	ng/L	0.57	2.9
4/8/2024 10:15	EFF-02 Grab	Pesticides	Oxyfluorfen	0.23 U	ng/L	0.23	1.1
4/8/2024 10:15	EFF-02 Grab	Pesticides	Sucralose	96	µg/L	0.20	0.80
4/8/2024 10:15	EFF-02 Grab	Pesticides	Naproxen	0.0080 U	µg/L	0.0080	0.032
4/8/2024 10:15	EFF-02 Grab	Pesticides	Pronamide	0.11 U	ng/L	0.11	0.57
4/8/2024 10:15	EFF-02 Grab	Pesticides	Carfentrazone Ethyl	0.17 U	ng/L	0.17	0.86
4/8/2024 10:15	EFF-02 Grab	Pesticides	Chlorfenapyr	1.2 I	ng/L	0.34	1.7
4/8/2024 10:15	EFF-02 Grab	Pesticides	Dimethenamid	0.11 U	ng/L	0.11	0.57
4/8/2024 10:15	EFF-02 Grab	Pesticides	Fluxapyroxad	0.36 I	ng/L	0.29	1.4
4/8/2024 10:15	EFF-02 Grab	Pesticides	Mevinphos	1.1 U	ng/L	1.1	5.7
4/8/2024 10:15	EFF-02 Grab	Pesticides	Naled	2.9 U	ng/L	2.9	14
4/8/2024 10:15	EFF-02 Grab	Pesticides	Prometryn	0.40 U	ng/L	0.40	2.0
4/8/2024 10:15	EFF-02 Grab	Pesticides	Butylate	0.51 U	ng/L	0.51	2.6
4/8/2024 10:15	EFF-02 Grab	Pesticides	Caffeine	8.6 U	ng/L	8.6	43
4/8/2024 10:15	EFF-02 Grab	Pesticides	Ethion	0.34 U	ng/L	0.34	1.7
4/8/2024 10:15	EFF-02 Grab	Pesticides	Fenamiphos	0.51 U	ng/L	0.51	2.6
4/8/2024 10:15	EFF-02 Grab	Pesticides	Propanil	0.11 U	ng/L	0.11	0.57
4/8/2024 10:15	EFF-02 Grab	Pesticides	Chlorpyrifos Methyl	0.11 U	ng/L	0.11	0.57
4/8/2024 10:15	EFF-02 Grab	Pesticides	Ethoprop	0.14 U	ng/L	0.14	0.71
4/8/2024 10:15	EFF-02 Grab	Pesticides	Fluazifop-P-butyl	0.11 U	ng/L	0.11	0.57

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/8/2024 10:15	EFF-02 Grab	Pesticides	Flumioxazin	3.4 U	ng/L	3.4	17
4/8/2024 10:15	EFF-02 Grab	Pesticides	Malathion	0.40 U	ng/L	0.40	2.0
4/8/2024 10:15	EFF-02 Grab	Pesticides	Parathion Ethyl	0.17 U	ng/L	0.17	0.86
4/8/2024 10:15	EFF-02 Grab	Pesticides	Pendimethalin	1.9 U	ng/L	1.9	9.7
4/8/2024 10:15	EFF-02 Grab	Pesticides	Prodiamine	0.32 I	ng/L	0.23	1.1
4/8/2024 10:15	EFF-02 Grab	Pesticides	Triadimefon	0.17 U	ng/L	0.17	0.86
4/8/2024 10:15	EFF-02 Grab	Pesticides	Acetochlor	0.23 U	ng/L	0.23	1.1
4/8/2024 10:15	EFF-02 Grab	Pesticides	Alachlor	0.46 U	ng/L	0.46	2.3
4/8/2024 10:15	EFF-02 Grab	Pesticides	Bromacil	0.68 U	ng/L	0.68	3.4
4/8/2024 10:15	EFF-02 Grab	Pesticides	Disulfoton	0.68 U	ng/L	0.68	3.4
4/8/2024 10:15	EFF-02 Grab	Pesticides	Fipronil Sulfide	4.1	ng/L	0.11	0.57
4/8/2024 10:15	EFF-02 Grab	Pesticides	Flutolanil	2.4	ng/L	0.11	0.57
4/8/2024 10:15	EFF-02 Grab	Pesticides	Metalaxyl	0.57 U	ng/L	0.57	2.9
4/8/2024 10:15	EFF-02 Grab	Pesticides	Metolachlor	0.86 U	ng/L	0.86	4.3
4/8/2024 10:15	EFF-02 Grab	Pesticides	Molinate	0.29 U	ng/L	0.29	1.4
4/8/2024 10:15	EFF-02 Grab	Pesticides	Napropamide	0.80 U	ng/L	0.80	4.0
4/8/2024 10:15	EFF-02 Grab	Pesticides	Phenytoin	6.1 U	ng/L	6.1	30
4/8/2024 10:15	EFF-02 Grab	Pesticides	Terbufos	0.23 U	ng/L	0.23	1.1
4/8/2024 10:15	EFF-02 Grab	Pesticides	Fipronil	44	ng/L	0.23	1.1
4/8/2024 10:15	EFF-02 Grab	Pesticides	Fipronil Sulfone	2.9	ng/L	0.11	0.57
4/8/2024 10:15	EFF-02 Grab	Pesticides	Imazalil	0.74 U	ng/L	0.74	3.7
4/8/2024 10:15	EFF-02 Grab	Pesticides	Phorate	0.29 U	ng/L	0.29	1.4
4/8/2024 10:15	EFF-02 Grab	Pesticides	Pyridaben	1.6 U	ng/L	1.6	8.0
4/8/2024 10:15	EFF-02 Grab	Pesticides	Simazine	8.3	ng/L	0.29	1.4
4/8/2024 10:15	EFF-02 Grab	Pesticides	Stirophos	0.46 U	ng/L	0.46	3.7
4/8/2024 10:15	EFF-02 Grab	Pesticides	Sulfentrazone	8.9	ng/L	1.6	8.0
4/8/2024 10:15	EFF-02 Grab	Pesticides	Terbuthylazine	0.23 U	ng/L	0.23	1.1
4/8/2024 10:15	EFF-02 Grab	Pesticides	Thiobencarb	0.57 U	ng/L	0.57	2.9
4/8/2024 10:15	EFF-02 Grab	Pesticides	Azinphos Methyl	3.4 U	ng/L	3.4	17
4/8/2024 10:15	EFF-02 Grab	Pesticides	Azoxystrobin	9.2 J	ng/L	0.46	2.3
4/8/2024 10:15	EFF-02 Grab	Pesticides	Chlorpyrifos Ethyl	0.34 U	ng/L	0.34	1.7
4/8/2024 10:15	EFF-02 Grab	Pesticides	Cyprodinil	0.23 U	ng/L	0.23	1.1
4/8/2024 10:15	EFF-02 Grab	Pesticides	Difenoconazole	0.68 U	ng/L	0.68	3.4
4/8/2024 10:15	EFF-02 Grab	Pesticides	Dimethomorph	0.34 U	ng/L	0.34	1.7
4/8/2024 10:15	EFF-02 Grab	Pesticides	Dithiopyr	1.3 I	ng/L	1.1	5.7
4/8/2024 10:15	EFF-02 Grab	Pesticides	EPTC	0.57 U	ng/L	0.57	2.9
4/8/2024 10:15	EFF-02 Grab	Pesticides	Fenbuconazole	0.57 U	ng/L	0.57	2.9

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/8/2024 10:15	EFF-02 Grab	Pesticides	Fludioxonil	5.6	ng/L	0.11	0.57
4/8/2024 10:15	EFF-02 Grab	Pesticides	Fonofos	0.17 U	ng/L	0.17	0.86
4/8/2024 10:15	EFF-02 Grab	Pesticides	Loratadine	23	ng/L	0.34	1.7
4/8/2024 10:15	EFF-02 Grab	Pesticides	Myclobutanil	0.40 U	ng/L	0.40	2.0
4/8/2024 10:15	EFF-02 Grab	Pesticides	Norflurazon	1.1 U	ng/L	1.1	5.7
4/8/2024 10:15	EFF-02 Grab	Pesticides	Oxadiazon	1.3 I	ng/L	0.40	2.0
4/8/2024 10:15	EFF-02 Grab	Pesticides	Parathion Methyl	0.23 U	ng/L	0.23	1.1
4/8/2024 10:15	EFF-02 Grab	Pesticides	Ibuprofen	0.080 U	µg/L	0.080	0.32
4/8/2024 10:15	EFF-02 Grab	Pesticides	Propiconazole	0.68 U	ng/L	0.68	3.4
4/8/2024 10:15	EFF-02 Grab	Pesticides	Pyraflufen Ethyl	0.34 U	ng/L	0.34	1.7
4/8/2024 10:15	EFF-02 Grab	Pesticides	Tebuconazole	9.1	ng/L	1.6	8.0
4/8/2024 10:15	EFF-02 Grab	Pesticides	Ametryn	1.3 U	ng/L	1.3	6.3
4/8/2024 10:15	EFF-02 Grab	Pesticides	Atrazine	73	ng/L	0.23	1.1
4/8/2024 10:15	EFF-02 Grab	Pesticides	Cyanazine	5.7 U	ng/L	5.7	29
4/8/2024 10:15	EFF-02 Grab	Pesticides	Diazinon	0.14 U	ng/L	0.14	0.71
4/8/2024 10:15	EFF-02 Grab	Pesticides	Etridiazole	0.11 U	ng/L	0.11	0.57
4/8/2024 10:15	EFF-02 Grab	Pesticides	Hexazinone	0.57 U	ng/L	0.57	2.9
4/8/2024 10:15	EFF-02 Grab	Pesticides	Metribuzin	1.7 I	ng/L	0.46	2.3
4/8/2024 10:15	EFF-02 Grab	Pesticides	Prometon	3.4 U	ng/L	3.4	17
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	2,4-Dinitrophenol	10 U	µg/L	10	41
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Hexachlorobutadiene	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Benzo(b)fluoranthene	0.026 U	µg/L	0.026	0.10
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Di-n-butyl phthalate	2.1 U	µg/L	2.1	8.2
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Hexachlorocyclopentadiene	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.026 U	µg/L	0.026	0.10
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	2,6-Dinitrotoluene	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Phenol	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Benzo(a)anthracene	0.026 UJ	µg/L	0.026	0.10
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Benzidine	10 U	µg/L	10	41
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Isophorone	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Anthracene	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	2,4-Dimethylphenol	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	1,4-Dioxane	0.040 U	µg/L	0.040	0.16
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	2-Chloronaphthalene	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	2,4-Dichlorophenol	0.052 U	µg/L	0.052	0.21

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	2,4-Dinitrotoluene	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Benzo(k)fluoranthene	0.026 U	µg/L	0.026	0.10
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.026 U	µg/L	0.026	0.10
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Pyrene	0.10 U	µg/L	0.10	0.41
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.1 U	µg/L	3.1	12
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	2-Nitrophenol	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	5.2 U	µg/L	5.2	21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Hexachlorobenzene	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Hexachloroethane	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	N-Nitrosodimethylamine	2.1 U	µg/L	2.1	8.2
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Acenaphthene	0.026 U	µg/L	0.026	0.10
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Dimethyl phthalate	0.21 U	µg/L	0.21	0.82
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Fluoranthene	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Nitrobenzene	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Phenanthrene	0.10 U	µg/L	0.10	0.41
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	4-Nitrophenol	10 U	µg/L	10	41
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Acenaphthylene	0.026 U	µg/L	0.026	0.10
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Chrysene	0.026 U	µg/L	0.026	0.10
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Di-n-octyl phthalate	0.052 UJ	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Diethyl phthalate	2.1 U	µg/L	2.1	8.2
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Naphthalene	0.10 U	µg/L	0.10	0.41
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	3,3'-Dichlorobenzidine	10 U	µg/L	10	41
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Benzo(a)pyrene	0.026 U	µg/L	0.026	0.10
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.026 U	µg/L	0.026	0.10
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Butyl benzyl phthalate	1.0 U	µg/L	1.0	4.1
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Fluorene	0.026 U	µg/L	0.026	0.10
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	Pentachlorophenol	0.52 U	µg/L	0.52	2.1
4/8/2024 10:15	EFF-02 Grab	Priority Organic Pollutants	2-Chlorophenol	0.052 U	µg/L	0.052	0.21
4/8/2024 10:15	EFF-02 Grab	Nutrients	Specific Conductance	568	umhos/cm		
4/8/2024 10:15	EFF-02 Grab	Nutrients	Temperature	20.6	C		

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/8/2024 10:15	EFF-02 Grab	Nutrients	Dissolved Oxygen %Sat	81.6	%Sat		
4/8/2024 10:15	EFF-02 Grab	Nutrients	pH	6.93			
4/8/2024 11:40	Control Site	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	2.1 I	µg/L	0.93	2.8
4/8/2024 11:40	Control Site	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Uncorrected	1.9 I	µg/L	0.68	2.0
4/8/2024 11:40	Control Site	Chlorophyll/Grain Size/BOD	Phaeophytin-a	1.0 U	µg/L	1.0	3.0
4/8/2024 11:40	Control Site	Microbiology	Fecal Coliforms-Membrane Filter	2 UQ	cfu/100 mL	2	2
4/8/2024 11:40	Control Site	Overflow	Enterococci-Quanti-Tray	10 U	MPN/100 mL	10	10
4/8/2024 11:40	Control Site	Overflow	Escherichia Coli-Quanti-Tray	10 U	MPN/100 mL	10	10
4/8/2024 11:40	Control Site	Overflow	Carbonaceous Biochemical Oxygen Demand	2.0 U	mg/L	2.0	2.0
4/8/2024 11:40	Control Site	Metals	Copper	1.6 U	µg/L	1.6	3.2
4/8/2024 11:40	Control Site	Metals	Calcium	253	mg/L	3.8	15
4/8/2024 11:40	Control Site	Metals	Cadmium	0.080 U	µg/L	0.080	0.32
4/8/2024 11:40	Control Site	Metals	Chromium	4.0 U	µg/L	4.0	16
4/8/2024 11:40	Control Site	Metals	Lead	0.80 U	µg/L	0.80	1.6
4/8/2024 11:40	Control Site	Metals	Selenium	2.0 U	µg/L	2.0	8.0
4/8/2024 11:40	Control Site	Metals	Potassium	239	mg/L	15	60
4/8/2024 11:40	Control Site	Metals	Aluminum	61 I	µg/L	50	200
4/8/2024 11:40	Control Site	Metals	Zinc	15 U	µg/L	15	60
4/8/2024 11:40	Control Site	Metals	Magnesium	827	mg/L	2.0	8.0
4/8/2024 11:40	Control Site	Metals	Iron	90 U	µg/L	90	360
4/8/2024 11:40	Control Site	Metals	Arsenic	0.99	µg/L	0.20	0.80
4/8/2024 11:40	Control Site	Metals	Sodium	6.25E+03	mg/L	25	100
4/8/2024 11:40	Control Site	Metals	Silver	0.040 U	µg/L	0.040	0.16
4/8/2024 11:40	Control Site	Metals	Nickel	5.0 U	µg/L	5.0	20
4/8/2024 11:40	Control Site	Nutrients	Color (true)	17	PCU	2.5	6.0
4/8/2024 11:40	Control Site	Nutrients	Fluoride	0.73	mg F/L	0.12	0.50
4/8/2024 11:40	Control Site	Nutrients	O-Phosphate-P	0.004 U	mg P/L	0.0040	0.010
4/8/2024 11:40	Control Site	Nutrients	Turbidity	0.75 I	NTU	0.10	1.0
4/8/2024 11:40	Control Site	Nutrients	NO2NO3-N	0.020	mg N/L	0.0040	0.010
4/8/2024 11:40	Control Site	Nutrients	Organic Carbon	5.0	mg C/L	2.0	4.0
4/8/2024 11:40	Control Site	Nutrients	Total-P	0.006 I	mg P/L	0.0040	0.010
4/8/2024 11:40	Control Site	Nutrients	Total Alkalinity	80	mg CaCO3/L	0.65	2.5
4/8/2024 11:40	Control Site	Nutrients	TSS	9 I	mg/L	3.0	10
4/8/2024 11:40	Control Site	Nutrients	Sulfate	1.7E+03	mg SO4/L	40	100
4/8/2024 11:40	Control Site	Nutrients	Kjeldahl Nitrogen	0.33 I	mg N/L	0.16	0.40
4/8/2024 11:40	Control Site	Nutrients	Ammonia-N	0.004 I	mg N/L	0.0020	0.0050
4/8/2024 11:40	Control Site	Nutrients	Chloride	1.2E+04	mg Cl/L	40	100

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/8/2024 11:40	Control Site	Pesticides	Sucralose	0.15	µg/L	0.010	0.040
4/8/2024 11:40	Control Site	Priority Organic Pollutants	1,4-Dioxane	0.040 U	µg/L	0.040	0.16
4/8/2024 11:40	Control Site	Nutrients	Temperature	20.4	C		
4/8/2024 11:40	Control Site	Nutrients	Sample Depth	0.3	m		
4/8/2024 11:40	Control Site	Nutrients	Specific Conductance	33438	umhos/cm		
4/8/2024 11:40	Control Site	Nutrients	Dissolved Oxygen %Sat	105.9	%Sat		
4/8/2024 11:40	Control Site	Nutrients	pH	8.19			
4/8/2024 12:25	Test Site	Chlorophyll/Grain Size/BOD	Phaeophytin-a	1.0 U	µg/L	1.0	3.0
4/8/2024 12:25	Test Site	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	2.1 I	µg/L	0.93	2.8
4/8/2024 12:25	Test Site	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Uncorrected	1.9 I	µg/L	0.68	2.0
4/8/2024 12:25	Test Site	Microbiology	Fecal Coliforms-Membrane Filter	2 UQ	cfu/100 mL	2	2
4/8/2024 12:25	Test Site	Overflow	Enterococci-Quanti-Tray	10 U	MPN/100 mL	10	10
4/8/2024 12:25	Test Site	Overflow	Escherichia Coli-Quanti-Tray	10 U	MPN/100 mL	10	10
4/8/2024 12:25	Test Site	Overflow	Carbonaceous Biochemical Oxygen Demand	2.0 U	mg/L	2.0	2.0
4/8/2024 12:25	Test Site	Metals	Aluminum	56 I	µg/L	50	200
4/8/2024 12:25	Test Site	Metals	Zinc	50 U	µg/L	50	200
4/8/2024 12:25	Test Site	Metals	Magnesium	861	mg/L	2.0	8.0
4/8/2024 12:25	Test Site	Metals	Potassium	263	mg/L	15	60
4/8/2024 12:25	Test Site	Metals	Copper	1.6 U	µg/L	1.6	3.2
4/8/2024 12:25	Test Site	Metals	Chromium	4.0 U	µg/L	4.0	16
4/8/2024 12:25	Test Site	Metals	Arsenic	0.99	µg/L	0.20	0.80
4/8/2024 12:25	Test Site	Metals	Selenium	2.0 U	µg/L	2.0	8.0
4/8/2024 12:25	Test Site	Metals	Silver	0.040 U	µg/L	0.040	0.16
4/8/2024 12:25	Test Site	Metals	Lead	0.80 U	µg/L	0.80	1.6
4/8/2024 12:25	Test Site	Metals	Cadmium	0.080 U	µg/L	0.080	0.32
4/8/2024 12:25	Test Site	Metals	Calcium	263	mg/L	3.8	15
4/8/2024 12:25	Test Site	Metals	Iron	90 U	µg/L	90	360
4/8/2024 12:25	Test Site	Metals	Sodium	6.78E+03	mg/L	25	100
4/8/2024 12:25	Test Site	Metals	Nickel	5.0 U	µg/L	5.0	20
4/8/2024 12:25	Test Site	Nutrients	Ammonia-N	0.004 I	mg N/L	0.0020	0.0050
4/8/2024 12:25	Test Site	Nutrients	Total Alkalinity	84 A	mg CaCO3/L	0.65	2.5
4/8/2024 12:25	Test Site	Nutrients	Turbidity	0.70 I	NTU	0.10	1.0
4/8/2024 12:25	Test Site	Nutrients	Sulfate	1.8E+03	mg SO4/L	40	100
4/8/2024 12:25	Test Site	Nutrients	TSS	3 I	mg/L	3.0	10
4/8/2024 12:25	Test Site	Nutrients	Kjeldahl Nitrogen	0.31 I	mg N/L	0.16	0.40
4/8/2024 12:25	Test Site	Nutrients	O-Phosphate-P	0.005 I	mg P/L	0.0040	0.010
4/8/2024 12:25	Test Site	Nutrients	NO2NO3-N	0.017	mg N/L	0.0040	0.010

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/8/2024 12:25	Test Site	Nutrients	Fluoride	0.77	mg F/L	0.12	0.50
4/8/2024 12:25	Test Site	Nutrients	Chloride	1.3E+04	mg Cl/L	40	100
4/8/2024 12:25	Test Site	Nutrients	Color (true)	14 A	PCU	2.5	6.0
4/8/2024 12:25	Test Site	Nutrients	Total-P	0.005 I	mg P/L	0.0040	0.010
4/8/2024 12:25	Test Site	Nutrients	Organic Carbon	4.5	mg C/L	2.0	4.0
4/8/2024 12:25	Test Site	Pesticides	Sucralose	0.18	µg/L	0.010	0.040
4/8/2024 12:25	Test Site	Priority Organic Pollutants	1,4-Dioxane	0.040 U	µg/L	0.040	0.16
4/8/2024 12:25	Test Site	Nutrients	Dissolved Oxygen %Sat	104.9	%Sat		
4/8/2024 12:25	Test Site	Nutrients	Temperature	20.5	C		
4/8/2024 12:25	Test Site	Nutrients	Sample Depth	0.3	m		
4/8/2024 12:25	Test Site	Nutrients	Specific Conductance	35350	umhos/cm		
4/8/2024 12:25	Test Site	Nutrients	pH	8.18			
4/8/2024 10:30	Field blank	Metals	Cadmium	0.020 U	µg/L	0.020	0.080
4/8/2024 10:30	Field blank	Metals	Nickel	0.50 U	µg/L	0.50	2.0
4/8/2024 10:30	Field blank	Metals	Arsenic	0.050 U	µg/L	0.050	0.20
4/8/2024 10:30	Field blank	Metals	Lead	0.20 U	µg/L	0.20	0.40
4/8/2024 10:30	Field blank	Metals	Iron	30 U	µg/L	30	120
4/8/2024 10:30	Field blank	Metals	Chromium	0.40 U	µg/L	0.40	1.6
4/8/2024 10:30	Field blank	Metals	Selenium	0.20 U	µg/L	0.20	0.80
4/8/2024 10:30	Field blank	Metals	Sodium	0.50 U	mg/L	0.50	2.0
4/8/2024 10:30	Field blank	Metals	Calcium	0.075 U	mg/L	0.075	0.30
4/8/2024 10:30	Field blank	Metals	Magnesium	0.040 U	mg/L	0.040	0.16
4/8/2024 10:30	Field blank	Metals	Copper	0.40 U	µg/L	0.40	0.80
4/8/2024 10:30	Field blank	Metals	Silver	0.010 U	µg/L	0.010	0.040
4/8/2024 10:30	Field blank	Metals	Potassium	0.30 U	mg/L	0.30	1.2
4/8/2024 10:30	Field blank	Metals	Zinc	5.0 U	µg/L	5.0	20
4/8/2024 10:30	Field blank	Metals	Aluminum	5.0 U	µg/L	5.0	20
4/8/2024 10:30	Field blank	Nutrients	Fluoride	0.025 U	mg F/L	0.025	0.10
4/8/2024 10:30	Field blank	Nutrients	NO2NO3-N	0.004 U	mg N/L	0.0040	0.010
4/8/2024 10:30	Field blank	Nutrients	Total-P	0.002 U	mg P/L	0.0020	0.0050
4/8/2024 10:30	Field blank	Nutrients	Total Alkalinity	0.65 U	mg CaCO3/L	0.65	2.5
4/8/2024 10:30	Field blank	Nutrients	Chloride	0.20 U	mg Cl/L	0.20	0.50
4/8/2024 10:30	Field blank	Nutrients	O-Phosphate-P	0.004 U	mg P/L	0.0040	0.010
4/8/2024 10:30	Field blank	Nutrients	Color (true)	2.5 U	PCU	2.5	6.0
4/8/2024 10:30	Field blank	Nutrients	Organic Carbon	0.50 U	mg C/L	0.50	1.0
4/8/2024 10:30	Field blank	Nutrients	Sulfate	0.20 U	mg SO4/L	0.20	0.50
4/8/2024 10:30	Field blank	Nutrients	Ammonia-N	0.002 U	mg N/L	0.0020	0.0050

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/8/2024 10:30	Field blank	Nutrients	Kjeldahl Nitrogen	0.080 U	mg N/L	0.080	0.20
4/8/2024 10:30	Field blank	Nutrients	Turbidity	0.10 U	NTU	0.10	1.0
4/8/2024 10:30	Field blank	Pesticides	Prometryn	0.37 U	ng/L	0.37	1.8
4/8/2024 10:30	Field blank	Pesticides	Pronamide	0.10 U	ng/L	0.10	0.52
4/8/2024 10:30	Field blank	Pesticides	Stirophos	0.42 U	ng/L	0.42	3.3
4/8/2024 10:30	Field blank	Pesticides	Sulfentrazone	1.5 U	ng/L	1.5	7.3
4/8/2024 10:30	Field blank	Pesticides	Azoxystrobin	0.42 U	ng/L	0.42	2.1
4/8/2024 10:30	Field blank	Pesticides	Caffeine	7.8 U	ng/L	7.8	39
4/8/2024 10:30	Field blank	Pesticides	Chlorfenapyr	0.31 U	ng/L	0.31	1.6
4/8/2024 10:30	Field blank	Pesticides	Chlorpyrifos Methyl	0.10 U	ng/L	0.10	0.52
4/8/2024 10:30	Field blank	Pesticides	Cyprodinil	0.21 U	ng/L	0.21	1.0
4/8/2024 10:30	Field blank	Pesticides	Disulfoton	0.63 U	ng/L	0.63	3.1
4/8/2024 10:30	Field blank	Pesticides	Fipronil Sulfone	0.10 U	ng/L	0.10	0.52
4/8/2024 10:30	Field blank	Pesticides	Fluazifop-P-butyl	0.10 U	ng/L	0.10	0.52
4/8/2024 10:30	Field blank	Pesticides	Fludioxonil	0.10 U	ng/L	0.10	0.52
4/8/2024 10:30	Field blank	Pesticides	Flumioxazin	3.1 U	ng/L	3.1	16
4/8/2024 10:30	Field blank	Pesticides	Fonofos	0.16 U	ng/L	0.16	0.78
4/8/2024 10:30	Field blank	Pesticides	Imazalil	0.68 U	ng/L	0.68	3.4
4/8/2024 10:30	Field blank	Pesticides	Parathion Methyl	0.21 U	ng/L	0.21	1.0
4/8/2024 10:30	Field blank	Pesticides	Propiconazole	0.63 U	ng/L	0.63	3.1
4/8/2024 10:30	Field blank	Pesticides	Pyriproxyfen	0.26 U	ng/L	0.26	1.7
4/8/2024 10:30	Field blank	Pesticides	Ibuprofen	0.080 U	µg/L	0.080	0.32
4/8/2024 10:30	Field blank	Pesticides	Ametryn	1.1 U	ng/L	1.1	5.7
4/8/2024 10:30	Field blank	Pesticides	Coumaphos	1.1 U	ng/L	1.1	5.7
4/8/2024 10:30	Field blank	Pesticides	Fipronil	0.21 U	ng/L	0.21	1.0
4/8/2024 10:30	Field blank	Pesticides	Flutolanil	0.10 U	ng/L	0.10	0.52
4/8/2024 10:30	Field blank	Pesticides	Oxyfluorfen	0.21 U	ng/L	0.21	1.0
4/8/2024 10:30	Field blank	Pesticides	Phorate	0.26 U	ng/L	0.26	1.3
4/8/2024 10:30	Field blank	Pesticides	Prometon	3.1 U	ng/L	3.1	16
4/8/2024 10:30	Field blank	Pesticides	Terbufos	0.21 U	ng/L	0.21	1.0
4/8/2024 10:30	Field blank	Pesticides	Atrazine	0.21 U	ng/L	0.21	1.0
4/8/2024 10:30	Field blank	Pesticides	Metribuzin	0.42 U	ng/L	0.42	2.1
4/8/2024 10:30	Field blank	Pesticides	Norflurazon	1.0 U	ng/L	1.0	5.2
4/8/2024 10:30	Field blank	Pesticides	Oxadiazon	0.37 U	ng/L	0.37	1.8
4/8/2024 10:30	Field blank	Pesticides	Prodiamine	0.21 U	ng/L	0.21	1.0
4/8/2024 10:30	Field blank	Pesticides	Pyraflufen Ethyl	0.31 U	ng/L	0.31	1.6
4/8/2024 10:30	Field blank	Pesticides	Tebuconazole	1.5 U	ng/L	1.5	7.3

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/8/2024 10:30	Field blank	Pesticides	Thiobencarb	0.52 U	ng/L	0.52	2.6
4/8/2024 10:30	Field blank	Pesticides	Triadimefon	0.16 U	ng/L	0.16	0.78
4/8/2024 10:30	Field blank	Pesticides	Naproxen	0.0080 U	µg/L	0.0080	0.032
4/8/2024 10:30	Field blank	Pesticides	Butylate	0.47 U	ng/L	0.47	2.3
4/8/2024 10:30	Field blank	Pesticides	Chlorpyrifos Ethyl	0.31 U	ng/L	0.31	1.6
4/8/2024 10:30	Field blank	Pesticides	Fenbuconazole	0.52 U	ng/L	0.52	2.6
4/8/2024 10:30	Field blank	Pesticides	Fluxapyroxad	0.26 U	ng/L	0.26	1.3
4/8/2024 10:30	Field blank	Pesticides	Malathion	0.37 U	ng/L	0.37	1.8
4/8/2024 10:30	Field blank	Pesticides	Metalaxyl	0.52 U	ng/L	0.52	2.6
4/8/2024 10:30	Field blank	Pesticides	Parathion Ethyl	0.16 U	ng/L	0.16	0.78
4/8/2024 10:30	Field blank	Pesticides	Sucralose	0.010 U	µg/L	0.010	0.040
4/8/2024 10:30	Field blank	Pesticides	Carbophenothion	0.52 U	ng/L	0.52	2.6
4/8/2024 10:30	Field blank	Pesticides	Diazinon	0.13 U	ng/L	0.13	0.65
4/8/2024 10:30	Field blank	Pesticides	Fipronil Sulfide	0.10 U	ng/L	0.10	0.52
4/8/2024 10:30	Field blank	Pesticides	Metolachlor	0.78 U	ng/L	0.78	3.9
4/8/2024 10:30	Field blank	Pesticides	Mevinphos	1.0 U	ng/L	1.0	5.2
4/8/2024 10:30	Field blank	Pesticides	Propanil	0.10 U	ng/L	0.10	0.52
4/8/2024 10:30	Field blank	Pesticides	Terbuthylazine	0.21 U	ng/L	0.21	1.0
4/8/2024 10:30	Field blank	Pesticides	Atrazine Desethyl	1.4 U	ng/L	1.4	6.8
4/8/2024 10:30	Field blank	Pesticides	Cyanazine	5.2 U	ng/L	5.2	26
4/8/2024 10:30	Field blank	Pesticides	Dimethenamid	0.10 U	ng/L	0.10	0.52
4/8/2024 10:30	Field blank	Pesticides	Ethoprop	0.13 U	ng/L	0.13	0.65
4/8/2024 10:30	Field blank	Pesticides	Etridiazole	0.10 U	ng/L	0.10	0.52
4/8/2024 10:30	Field blank	Pesticides	Fipronil Desulfinyl	0.10 U	ng/L	0.10	0.52
4/8/2024 10:30	Field blank	Pesticides	Hexazinone	0.52 U	ng/L	0.52	2.6
4/8/2024 10:30	Field blank	Pesticides	Molinate	0.26 U	ng/L	0.26	1.3
4/8/2024 10:30	Field blank	Pesticides	Pendimethalin	1.8 U	ng/L	1.8	8.9
4/8/2024 10:30	Field blank	Pesticides	Phenytoin	5.5 U	ng/L	5.5	28
4/8/2024 10:30	Field blank	Pesticides	Simazine	0.26 U	ng/L	0.26	1.3
4/8/2024 10:30	Field blank	Pesticides	Demeton	3.7 U	ng/L	3.7	18
4/8/2024 10:30	Field blank	Pesticides	Difenoconazole	0.63 U	ng/L	0.63	3.1
4/8/2024 10:30	Field blank	Pesticides	EPTC	0.52 U	ng/L	0.52	2.6
4/8/2024 10:30	Field blank	Pesticides	Ethion	0.31 U	ng/L	0.31	1.6
4/8/2024 10:30	Field blank	Pesticides	Fenamiphos	0.47 U	ng/L	0.47	2.3
4/8/2024 10:30	Field blank	Pesticides	Loratadine	0.31 U	ng/L	0.31	1.6
4/8/2024 10:30	Field blank	Pesticides	Propargite	0.84 U	ng/L	0.84	4.2
4/8/2024 10:30	Field blank	Pesticides	Pyridaben	1.5 U	ng/L	1.5	7.3

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/8/2024 10:30	Field blank	Pesticides	Acetochlor	0.21 U	ng/L	0.21	1.0
4/8/2024 10:30	Field blank	Pesticides	Alachlor	0.42 U	ng/L	0.42	2.1
4/8/2024 10:30	Field blank	Pesticides	Azinphos Methyl	3.1 U	ng/L	3.1	16
4/8/2024 10:30	Field blank	Pesticides	Bromacil	0.63 U	ng/L	0.63	3.1
4/8/2024 10:30	Field blank	Pesticides	Carfentrazone Ethyl	0.16 U	ng/L	0.16	0.78
4/8/2024 10:30	Field blank	Pesticides	Dimethomorph	0.31 U	ng/L	0.31	1.6
4/8/2024 10:30	Field blank	Pesticides	Dithiopyr	1.0 U	ng/L	1.0	5.2
4/8/2024 10:30	Field blank	Pesticides	Iprodione	0.52 U	ng/L	0.52	2.6
4/8/2024 10:30	Field blank	Pesticides	Myclobutanil	0.37 U	ng/L	0.37	1.8
4/8/2024 10:30	Field blank	Pesticides	Naled	2.6 U	ng/L	2.6	13
4/8/2024 10:30	Field blank	Pesticides	Napropamide	0.73 U	ng/L	0.73	3.7
4/8/2024 10:30	Field blank	Priority Organic Pollutants	2-Chloronaphthalene	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	2,4-Dinitrophenol	10 U	µg/L	10	42
4/8/2024 10:30	Field blank	Priority Organic Pollutants	3,3'-Dichlorobenzidine	10 U	µg/L	10	42
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Benzidine	10 U	µg/L	10	42
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Hexachlorobutadiene	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Phenol	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	1,4-Dioxane	0.040 U	µg/L	0.040	0.16
4/8/2024 10:30	Field blank	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.1 U	µg/L	3.1	12
4/8/2024 10:30	Field blank	Priority Organic Pollutants	4-Nitrophenol	10 U	µg/L	10	42
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Di-n-octyl phthalate	0.052 UJ	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Diethyl phthalate	2.1 U	µg/L	2.1	8.3
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Hexachlorocyclopentadiene	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Naphthalene	0.10 U	µg/L	0.10	0.42
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Pentachlorophenol	0.52 U	µg/L	0.52	2.1
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Phenanthrene	0.10 U	µg/L	0.10	0.42
4/8/2024 10:30	Field blank	Priority Organic Pollutants	2-Nitrophenol	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Acenaphthylene	0.026 U	µg/L	0.026	0.10
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.026 U	µg/L	0.026	0.10
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Fluoranthene	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	2,6-Dinitrotoluene	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Benzo(a)anthracene	0.026 UJ	µg/L	0.026	0.10
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Benzo(a)pyrene	0.026 U	µg/L	0.026	0.10
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Butyl benzyl phthalate	1.0 U	µg/L	1.0	4.2
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Dimethyl phthalate	0.21 U	µg/L	0.21	0.83
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.026 U	µg/L	0.026	0.10

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
4/8/2024 10:30	Field blank	Priority Organic Pollutants	N-Nitrosodimethylamine	2.1 U	µg/L	2.1	8.3
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Nitrobenzene	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Pyrene	0.10 U	µg/L	0.10	0.42
4/8/2024 10:30	Field blank	Priority Organic Pollutants	2-Chlorophenol	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	2,4-Dimethylphenol	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Di-n-butyl phthalate	2.1 U	µg/L	2.1	8.3
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Hexachlorobenzene	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	2,4-Dinitrotoluene	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Acenaphthene	0.026 U	µg/L	0.026	0.10
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Fluorene	0.026 U	µg/L	0.026	0.10
4/8/2024 10:30	Field blank	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Benzo(b)fluoranthene	0.026 U	µg/L	0.026	0.10
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Benzo(k)fluoranthene	0.026 U	µg/L	0.026	0.10
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	5.2 U	µg/L	5.2	21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Hexachloroethane	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	2,4-Dichlorophenol	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Anthracene	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Chrysene	0.026 U	µg/L	0.026	0.10
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.026 U	µg/L	0.026	0.10
4/8/2024 10:30	Field blank	Priority Organic Pollutants	Isophorone	0.052 U	µg/L	0.052	0.21
4/8/2024 10:30	Field blank	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	0.052 U	µg/L	0.052	0.21