Biological Assessment of GRU Main Street Water Reclamation Facility Alachua County NPDES # FL0027251 Sampled October 24, 28, 30, and November 01, 2024

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

Total Residual Chlorine (TRC) in the effluent grab sample exceeded the Class III Water Quality Criterion for Fresh Waters (Subsection 62-302.530(18), F.A.C.) and effluent permit limits. All water chemistry analytes in the effluent grab and time-proportioned composite samples complied with the Class III Water Quality Criteria for Fresh Waters and effluent grab and flow-proportioned composite permit limits. *Escherichia coli* (*E. coli*) in the Control Site sample exceeded Class III Water Quality Criterion for Fresh Waters (Subsection or Paragraph 62-302.530(6)(b), F.A.C.). Similar and higher nutrient levels in the effluent and Test Site samples compared to the Control Site, along with the Algal Growth Potential (AGP) results indicate a potential for nutrient enrichment of the receiving waters due to the effluent. There were 11 organic constituents detected in the effluent grab sample. The Control Site scored higher than the Test Site on the Stream Condition Index (SCI). In comparison to the Control Site sample, the Test Site sample had a higher percentage of very tolerant macroinvertebrate individuals, which tend to increase with human disturbance.

Facility Overview

The GRU Main Street Water Reclamation 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. The effluent is continuously discharged into Sweetwater Branch, a Class III Freshwater [waterbody identification (WBID) 2711] (Figure 1). Sweetwater Branch falls within the North Central Nutrient Watershed Region for Numeric Nutrient Criteria (NNC). For this region, the NNC, expressed as annual geometric means, are 0.30 mg/L total phosphorus and 1.87 mg/L total nitrogen (Paragraph 62-302.531(2)(c), F.A.C.). Sweetwater Branch falls within the Peninsula bioregion. For Class III predominantly freshwaters, the daily average dissolved oxygen (DO) saturation shall not be below 38 percent in more than 10 percent of the values (Paragraph 62-302.533(1)(a), 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 grab and 24-hour time-proportioned composite samples were collected from monitoring site location EFD-1 for outfall D-001 on October 28, 2024. Effluent renewal composite samples were collected on October 30, 2024, and November 01, 2024. The permit specifies 24-hr flow-proportioned composite samples for total phosphorus, total Kjeldahl nitrogen, organic nitrogen, total nitrogen, carbonaceous biological oxygen demand (CBOD), total suspended solids (TSS), hardness, chronic toxicity tests, cadmium, silver, and zinc; however, a flow-measurement device was not available on the composite sampler and time-proportioned composite samples were collected, instead. Chemical and biological comparisons were made between a Control Site (located in Sweetwater Branch beginning 100 m and ending 200 m upstream of the point of

discharge) and a Test Site (located in Sweetwater Branch beginning 225 m and ending 125 m downstream of the point of discharge) (Figure 1). Quantitative macroinvertebrate sampling by Hester Dendy was not conducted due to high stream flow at Control and Test Sites.

Samples were collected by Conor Lucey, Bronze Titus, Kyle Coker, and Jeremy Parrish (Northeast District). Analyses were performed by Eurofins Environmental Testing Southeast in Jacksonville, 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.

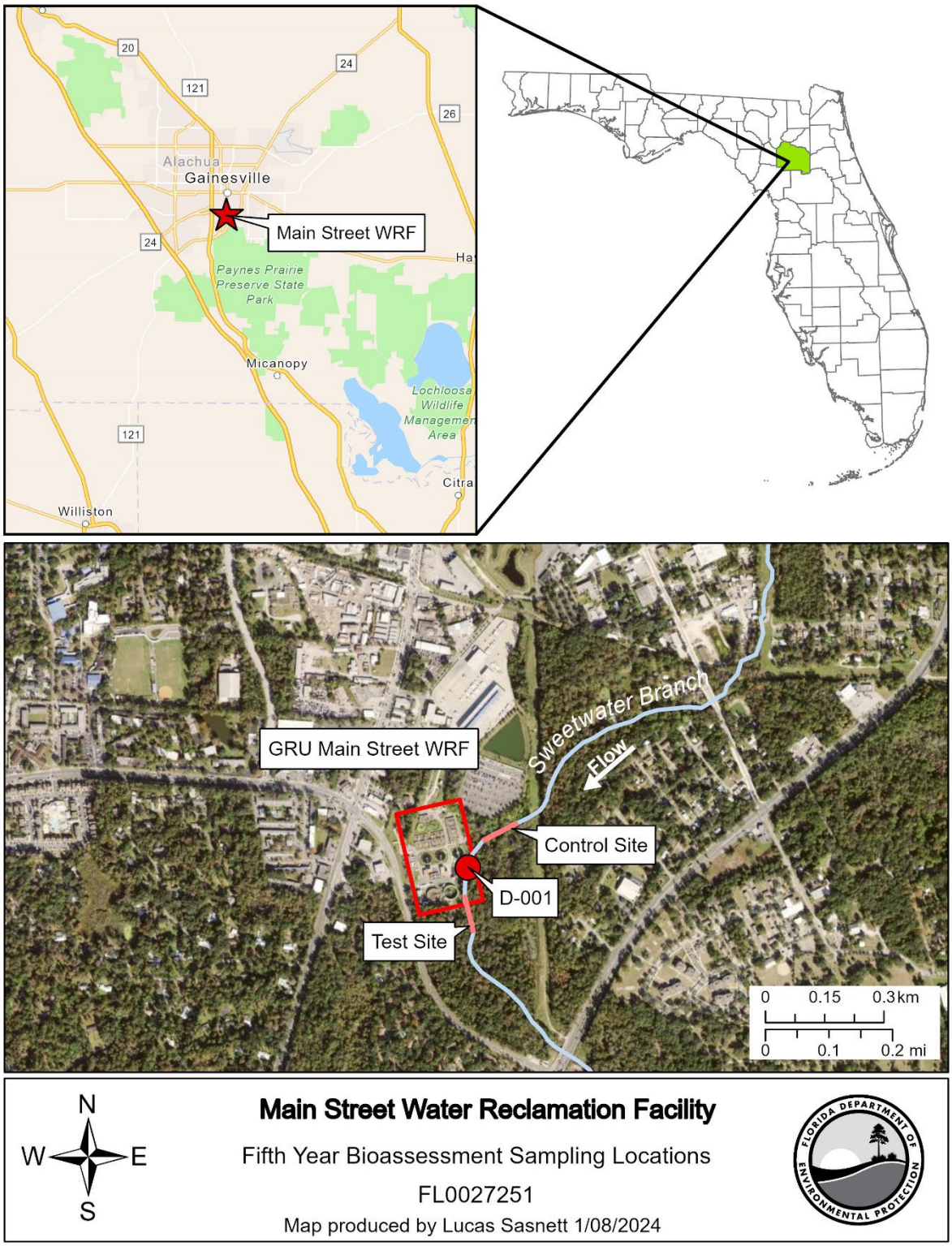


Figure 1. Map of Facility and Sampling Locations

Results

Physical and Chemical Parameters / Site Characterization (See Table 1 and Appendices A, B, D and E)

- Habitat Assessment scores were similar at the Test Site (102) and Control Site (91), which places both sites in the suboptimal category. The substrate diversity in Sweetwater Branch was similar between the Test Site and Control Site. Substrate availability was low overall; neither site had more than 6% major productive habitat. Both sites were affected by light sand and silt habitat smothering and both sites lost points for poor stability on both banks. The Test Site had similar riparian buffer zones and vegetation quality on both banks. The Control Site lost points on the left bank for a narrower riparian buffer zone and poorer vegetation quality than on the right bank. The Test Site had no artificial channelization (optimal) whereas the Control Site had some artificial channelization (suboptimal).

- Total Residual Chlorine (TRC) in the effluent exceeded the Class III Water Quality Criterion for Fresh Waters (Subsection 62-302.530(18), F.A.C.) and effluent permit limits. While TRC was detected in the effluent at the time of sampling, it was no longer detectable at the laboratory during sample preparation and analysis.

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

Analytical Water Chemistry (See Table 2 and Appendices A, B and E)

- All water chemistry analytes detected in the effluent grab and 24-hr time-proportioned composite samples complied with Class III Water Quality Criteria for Fresh Waters and effluent grab and flow-proportioned composite permit limits.

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

- Effluent and Test Site nutrient analytes were similar to one another and higher than those of the Control Site, indicating a potential for nutrient enrichment from the effluent in the downstream receiving waters.

- For comparative purposes only, total phosphorus and total nitrogen in the effluent composite and grab samples and total nitrogen in the Test Site sample was greater than the annual geometric mean limit for NNC in the North Central Nutrient Watershed Region

Microbiology (See Table 2 and Appendices A, B and E)

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

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

- *E. coli* levels measured in the Control Site sample exceeded Class III Water Quality Criterion for Fresh Waters (Subsection or Paragraph 62-302.530(6)(b), F.A.C.).

Toxicity Whole Effluent Test (See Table 2 and Appendices A, B and E)

- Tests were performed October 29 through November 4, 2024.

- Chronic toxicity samples were collected as 24-hr time-proportioned composite samples.

- The sample was aerated for 20 minutes at a rate of approximately 100 bubbles per minute to decrease the dissolved oxygen (DO) from 10.4 mg/L to 8.6 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 water flea, *Ceriodaphnia dubia*, was calculated as being greater than 100% effluent. Result was J-qualified as some neonates may have exceeded the <24 hr. age requirement by less than two hours.

- 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.

- 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 Appendices A, B and E)

- Effluent metals complied with Class III Water Quality Criteria for Fresh Waters. Mercury, cadmium, silver, and zinc samples complied with grab and flow-proportioned composite permit limits.

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

Algal Growth Potential (See Table 4 and Appendices B and E)

- The freshwater unicellular green alga, *Pseudokirchneriella subcapitata*, was used to determine the AGP values in the effluent grab, Test Site, and Control Site samples. The value was highest in the Test Site sample. The analytical chemistry suggests that

the effluent and Sweetwater Branch ambient waters are all nitrogen-limited (Miller et al. 1978).

- The effluent grab and Control Site sample AGP results of 4.06 mg dry wt/L and 1.44 mg dry wt/L, respectively, are in the AGP range (0.81-6.00 mg dry wt/L) suggested to be representative of moderately high productivity for freshwater. The Test Site sample AGP result of 6.36 mg dry wt/L was slightly higher and just into the range (6.10-20.00 mg dry wt/L) suggested to be representative of high productivity for fresh water (Miller et al. 1978).

- Differences greater than an order of magnitude between actual and predicted AGP values are considered sufficient evidence to warrant follow up testing with the algal growth inhibition bioassay. True algal growth inhibition can only be determined by performing an actual algal growth inhibition test. Should algal growth inhibition be suspected, the district should request that the algal growth inhibition test be performed as a follow-up to the inspection.

Flora (See Appendices B and D)

- Two temporally independent Linear Vegetation Survey (LVS) samplings showing a Coefficient of Conservatism (C of C) score ≥ 2.5 and the frequency of occurrence of Florida Exotic Plant Pest Council (FLEPPC) exotic taxa ≤ 25% are needed to achieve NNC floral metrics. Sites with no observed macrophytes are considered to achieve the LVS component of the NNC. Two temporally independent Rapid Periphyton survey (RPS) samplings with ≤ 25% rank 4-6 (algae >6mm thick) coverage are needed to achieve NNC floral metrics. 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.

- For the LVS, the Test and Control Sites lacked $2m^2$ of aquatic macrophytes.

- The RPS was performed at the Test and Control Sites. The canopy cover was reported as heavily shaded for both sites. Thick algal growth is not expected at heavily shaded sites. At both sites, none of the sampled points had algal length measurements greater than 1mm.

Macroinvertebrates (See Table 5 and Appendices A, B, and D)

- Qualitative macroinvertebrate data from dipnet samples indicated that the macroinvertebrate community at the Test Site was similar to the Control Site; however, the Test Site had a lower Stream Condition Index (SCI) score (39) than the Control Site (54). Both sites were dominated by *Cheumatopsyche* sp. (Trichoptera) with the percent dominant being slightly higher at the Control Site. In comparison to the Control Site sample, the Test Site sample had a higher percentage of very tolerant individuals, which tend to increase with human disturbance. The percent of Diptera, Trichoptera, and Coleoptera in the Control Site sample was similar and together, comprised roughly 78% of the community composition. There was a greater percent of Gastropoda and Odonata in the Test Site sample compared to the Control Site sample. Gastropoda and Odonata

were similar in percent to Trichoptera and Coleoptera, and together with Diptera, comprised roughly 88% of the community composition of the Test Site sample. The slightly higher number of Ephemeroptera, Trichoptera and Clinger taxa along with the higher percent of suspension feeders and lower percent of very tolerant individuals, contributed to the higher SCI score at the Control Site compared to the Test Site. The average of two or more temporally independent SCI scores equal to or greater than 40 represents Category 2, a healthy community. The single Control Site SCI score (54) from this event's sample was within Category 2. The single Test Site SCI score (39) from this event's sample was just below the threshold for Category 2 and above the threshold for Category 3, an impaired community level (equal to or less than 34). Lack of quality and quantity of habitat for macroinvertebrates may be factors driving the difference between the SCI scores.

- For more information or to obtain a copy of the taxa lists, please contact the Biology Laboratory at 850-245-8177.

Organic Constituents (See Table 6 and Appendices A, B, and E)

- Atrazine (herbicide), azoxystrobin (fungicide), fipronil sulfide (insecticide), fludioxonil (fungicide), flutolanil (fungicide), loratadine (pharmaceutical), metolachlor (herbicide), metribuzin (herbicide), oxyfluorfen (herbicide), propiconazole (fungicide), tebuconazole (fungicide) were detected in the effluent grab sample.

Literature Cited

Miller, W. E., Maloney, T. E. and Greene, J. C. 1978. The *Selenastrum capricornutum* Printz algal assay bottle test. EPA600/978-018. U. S. EPA, Cincinnati, Ohio. 126 p.

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 Water Quality Criteria for Fresh Waters, and field parameters

Parameter	Units	Class III Criteria	Effluent Permit Limits	Effluent Grab	Test Site	Control Site
Habitat Assessment	-	-	-	-	102	91
Sample Depth	m	-	-	-	0.1	0.3
Temperature	C	-	Report	24.7	24.1	22.5
pH	SU	6.0 - 8.5	6.4 - 8.4	6.8	7.2	7.7
Specific Conductance	µmhos/cm	≤ 1,275	-	600	626	571
Salinity	ppth	-	-	0.3 c	0.3 c	0.3 c
Dissolved Oxygen	% saturation	≥ 38	-	102.9	97.3	98.1
Dissolved Oxygen	mg/L	-	≥ 6.0	8.5	8.2	8.4
Flow	MGD	-	7.5[1]	6.1[1]	-	-
Total Residual Chlorine – for disinfection	mg/L	-	≥ 0.5	2.25	-	-
Total Residual Chlorine – for dechlorination	mg/L	≤ 0.01	≤ 0.01	0.09 e [2]	-	-

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
e - Value exceeds the Class III Water Quality Criteria or permit limits
c - Value is calculated
1 - Annual average
2 - No TRC was detected in water chemistry or toxicity samples during lab analysis.

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

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

Analyte	Units	Class III Criteria	Effluent Permit Limits	Effluent Composite	Effluent Grab	Test Site	Control Site
Ortho-phosphate	mg P/L	-	Report	-	0.20 J	0.20	0.20
Total Phosphorus	mg P/L	≤ 0.30 g	Report	0.43 s	0.27	0.30	0.23
Total Ammonia Nitrogen	mg N/L	≤ 3.28 c (Test) ≤ 2.51 c (Control)	Report	0.032	0.032	0.030	0.019
Nitrate and Nitrite	mg N/L	-	-	3.8	1.6	1.7	0.31
Total Kjeldahl Nitrogen	mg N/L	-	-	0.70	0.67	0.78	0.60
Organic Nitrogen	mg N/L	-	-	0.67 c	0.64 c	0.75 c	0.58 c
Total Nitrogen	mg N/L	≤ 1.87 g	Report	4.5 c	2.3 c	2.5 c	0.91 c
Total Organic Carbon	mg C/L	-	-	-	5.9	6.9	11
Chlorophyll *a* - Corrected	µg/L	-	-	-	0.93 U	0.93 U	0.93 U
Phaeophytin	µg/L	-	-	-	1.0 U	1.0 U	1.0 U
CBOD, 5 day, N - inhibited	mg/L	-	≤ 10.0 p	2.5	2.0 U	2.0 U	2.0 U
Total Suspended Solids	mg/L	-	≤ 20.0 p	2 I	2 I	4 I	4 IA
Turbidity	NTU	≤ 29 t	-	-	0.70 I	0.95 I	1.4
Color (true)	PCU	-	-	-	4.4 I	13 A	54
Alkalinity	mg CaCO3/L	≥ 20	-	-	44 A	59	121
Chloride	mg Cl/L	-	-	-	74	66	25
Cyanide	mg/L	≤ 5.2	Report	-	0.0060 UJ	0.0060 U	0.0060 U
Fluoride	mg F/L	≤ 10.0	-	-	0.21	0.24	0.38
Sulfate	mg SO4/L	-	-	-	150	150	140
Fecal Coliforms	MPN/100 mL	-	≤ 800	-	10.0 U	-	-
Escherichia coli	MPN/100 mL	≤ 410 s	-	-	-	160	1,940 Je
Enterococci	MPN/100 mL	-	-	-	10.0 U	-	-

Analyte	Units	Class III Criteria	Effluent Permit Limits	Effluent Composite	Effluent Grab	Test Site	Control Site
Bioassay - Water flea *(C. dubia)*	% effluent	-	≥ 100 p	-	> 100 J	-	-
Bioassay - Fish *(P. promelas)*	% effluent	-	≥ 100 p	-	> 100	-	-

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
e - Value exceeds the Class III Water Quality Criteria or permit limits
c - Value is calculated
g - Value expressed as an annual geometric mean
p - 24-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
U - Material analyzed for but not detected; value reported is the method detection limit

Table 3. Analytical metals data

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

Analyte	Units	Effluent Composite Class III Criteria	Effluent Permit Limits	Effluent Composite	Effluent Grab Class III Criteria	Effluent Grab	Test Site Class III Criteria	Test Site	Control Site Class III Criteria	Control Site
Hardness	mg CaCO3/L	-	-	179 c	-	184 c	-	194 c	-	269 c
Aluminum	µg/L	-	-	-	-	52	-	53	-	357
Arsenic	µg/L	≤ 50	-	-	≤ 50	0.28	≤ 50	0.42	≤ 50	1.15
Cadmium	µg/L	≤ 0.416 bp	≤ 0.416 bp	0.020 U	≤ 0.425 b	0.020 U	≤ 0.442 b	0.020 U	≤ 0.563 b	0.192
Calcium	mg/L	-	-	40.7	-	42.1	-	47.9	-	82.2
Chromium, Total [3]	µg/L	≤ 139 b	-	-	≤ 142 b	0.40 U	≤ 148 b	0.42 I	≤ 194 b	1.5 I
Copper	µg/L	≤ 15.3 b	-	-	≤ 15.7 b	2.02	≤ 16.4 b	1.03	≤ 21.7 b	5.01
Iron	µg/L	≤ 1,000	-	-	≤ 1,000	41 I	≤ 1,000	66 I	≤ 1,000	590
Lead	µg/L	≤ 6.66 b	-	-	≤ 6.9 b	0.20 U	≤ 7.4 b	0.20 U	≤ 11.2 b	1.83
Magnesium	mg/L	-	-	18.7	-	19.1	-	18.1	-	15.5
Mercury	µg/L	≤ 0.012	≤ 0.012	-	≤ 0.012	0.00067	≤ 0.012	0.00087	≤ 0.012	0.0013
Nickel	µg/L	≤ 85.2 b	-	-	≤ 87.3 b	0.61 I	≤ 91.4 b	0.61 I	≤ 121 b	0.87 I
Potassium	mg/L	-	-	-	-	8.8	-	7.5	-	2.6
Selenium	µg/L	≤ 5.0	-	-	≤ 5.0	0.20 U	≤ 5.0	0.20 U	≤ 5.0	0.22 I
Silver	µg/L	≤ 0.07 p	≤ 0.07 p	0.010 U	≤ 0.07	0.010 U	≤ 0.07	0.010 U	≤ 0.07	0.010 U
Sodium	mg/L	-	-	-	-	49.9	-	42.5	-	15.9
Zinc	µg/L	≤ 196 bp	≤ 196 bp	27	≤ 201 b	21	≤ 210 b	16 I	≤ 277 b	14 I

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
b - Value is calculated based on hardness
c - Value is calculated
p - 24-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 Freshwater Quality Criterion (62-302.530(19)(a), F.A.C.) is for chromium-III

Table 4. Algal Growth Potential (AGP)

Measured and predicted algal growth potential (AGP; mg dry weight/L) for total soluble inorganic nitrogen (TSIN), ortho-phosphate (OP), total nitrogen (TN) and total phosphorus (TP) limitation and ratios of nitrogen to phosphorus

Location	Test Species	AGP (measured)	Predicted AGP (TSIN) ± 20%	Predicted AGP (OP) ± 20%	Predicted AGP (TN) ± 20%	Predicted AGP (TP) ± 20%	Inorganic N:P ratio	Total N:P ratio
Effluent Grab	*Pseudokirchneriella subcapitata*	4.06	62 ± 12	86 ± 17	86 ± 17	120 ± 23	8.2	8.4
Test Site	*Pseudokirchneriella subcapitata*	6.36	66 ± 13	86 ± 17	94 ± 19	130 ± 26	8.7	8.3
Control Site	*Pseudokirchneriella subcapitata*	1.44 A	12 ± 2.5	86 ± 17	35 ± 6.9	99 ± 20	1.6	4.0

A - Value reported is the mean of two or more determinations

Table 5. Macroinvertebrate dipnet samples – qualitative

GRU Main Street WRF	**Test Site**		**Control Site**	
Stream Condition Index 2012	**39**		**54**	
Replicate	Rep 1	Rep 2	Rep 1	Rep 2
Stream Condition Index Metrics				
Number of Total Taxa	21	23	20	21
Number of Ephemeroptera Taxa	1	1	3	2
Number of Trichoptera Taxa	1	1	1	2
Number of Clinger Taxa	1	1	2	5
Number of Long-lived Taxa	1	3	2	2
Number of Sensitive Taxa	1	2	2	2
Percent of Dominant Taxon	15.8	19.2	28.0	26.4
Percent Suspension Feeders and Filterers	22.2	22.4	31.9	33.0
Percent of Tanytarsini Individuals	0.6	0.0	0.0	1.3
Percent of Very Tolerant Individuals	33.5	19.9	5.7	0.0
Total Number of Individuals	158	156	157	159
Community Composition: Percent of total				
Dominant Taxon Name	*Cheumatopsyche* sp. (Trichoptera)	*Cheumatopsyche* sp. (Trichoptera)	*Cheumatopsyche* sp. (Trichoptera)	*Cheumatopsyc*he sp. (Trichoptera)
Acariformes	0.6	0.0	0.0	0.0
Amphipoda	1.9	0.6	1.9	3.1
Bivalvia	5.7	3.2	3.8	5.0
Coleoptera	14.6	12.8	23.6	20.8
Decapoda	0.0	1.3	0.0	0.6
Diptera	24.1	30.1	28.7	28.3
Ephemeroptera	5.7	3.9	3.8	1.9
Gastropoda	17.1	14.1	5.1	8.2
Odonata	13.3	14.1	3.8	1.9

GRU Main Street WRF	**Test Site**		**Control Site**	
Oligochaeta	0.6	0.0	0.0	0.0
Plecoptera	0.0	0.0	0.0	0.0
Trichoptera	15.8	19.2	28.0	27.0
Other	0.6	0.6	1.3	3.2
Functional Feeding Groups: Percent of total				
Burrowing Deposit Feeders	0.6	0.0	0.0	0.0
Piercers	0.0	0.0	0.0	0.6
Predators	15.2	17.3	5.4	6.0
Scavengers	0.0	0.6	0.0	0.3
Scrapers	24.4	19.9	17.2	18.6
Shredders	12.0	14.1	15.0	14.2
Surface Deposit Feeders	25.6	25.6	30.6	27.4
Suspension Feeders	22.2	22.4	31.9	33.0

* SCI_2012 categories from Table LT 7200-2 of DEP-SOP-002/01 as referenced in Quality Assurance Rule (62-160 F.A.C.), 4-17-2018.

Table 6. Detected Organic Constituents

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

Analyte	Units	Class III Criteria	Effluent Permit Limits	Effluent Grab
Atrazine	ng/L	-	-	1.4
Azoxystrobin	ng/L	-	-	5.7
Fipronil Sulfide	ng/L	-	-	0.43 I
Fludioxonil	ng/L	-	-	0.96
Flutolanil	ng/L	-	-	1.2
Loratadine	ng/L	-	-	4.9
Metolachlor	ng/L	-	-	11
Metribuzin	ng/L	-	-	0.53 I
Oxyfluorfen	ng/L	-	-	0.33 I
Propiconazole	ng/L	-	-	1.7 I
Tebuconazole	ng/L	-	-	7.2 I
Gamma-BHC [4]	µg/L	-	0.08	0.00013 U

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
4 - Gamma-BHC was not detected in the Test Site and the Control site samples (0.00014 U and 0.00013 U, respectively).

Appendix A. Facility Summary

PART I: Information gathered prior to sampling event	
Prepared By: Tatianna Floyd	**Contact Number:** 904-256-1572
Facility Name (as it appears on permit): Main Street Water Reclamation Facility	**Former Names:**
NPDES Permit Number: FL0027251	**Permit Expiration Date:** 4/15/2025
Physical Address: 200 S.E. 16th Avenue Gainesville, Florida	
District: Northeast	**County:** Alachua
Function of Facility: To treat domestic wastewater for disposal and reuse purposes.	
Facility Type: Domestic Wastewater	**Permitted Capacity (MGD):** 7.5 MGD
Mean Flow for previous 12 months for all EXTERNAL outfalls listed in permit (list date range including months): 08/31/2023-09/30/2024 6.13 MGD	
If applicable, Mean Flow for previous 12 months for REUSE outfall(s) (list date range including months): 08/31/2023-09/30/2024 .023 MGD	
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): EFD-1 Sample point after dechlorination and before discharge to the Outfall D-001 EFA-1 Sample point after disinfection (basic-level disinfection) and prior to dechlorination and filtration. CAL-1 Calculated value of ultimate oxygen demand. CAL-2 Calculated value of unionized ammonia based on temperature and pH at time of grab sample. CAL-3 Calculated mass loads of total nitrogen or total phosphorus for discharge from Outfall D-001. SWB-1 Sample point approximately 300 feet north of the point of discharge (Outfall D-001); approximately at latitude 29˚ 38’ 3.91” N and longitude 82˚ 19’ 28.4” W SWD-1 Sample point approximately 300 feet south of the point of discharge (Outfall D-001); approximately at latitude 29˚ 37’ 58.7” N and longitude 82˚ 19’ 29.9” W.	
Description of Permitted Outfall(s): An existing 7.5 MGD annual average daily flow (AADF) permitted discharge to Sweetwater Branch (Class III fresh waters; Water Body Identification number (WBID) 2711) at Discharge Location (D-001). Sweetwater Branch flows into Alachua Sink which is in the Orange Creek planning unit of the Ocklawaha River basin. The point of discharge D-001 is located at approximately latitude 29 o 38' 03" N, longitude 82 o 19' 03" W.	
Description of Treatment Process (if multiple discharge points, include a detailed map or diagram of facility): a. Pretreatment Unit Processes: The pretreatment unit processes comprise two mechanical bar screens (3/4- inch opening, 4-foot width), one vortex grit removal unit (16-foot, 4-inch diameter), two grit	

cyclone units (18-inch screw diameter), two grit cyclone units (10-inch diameter), two grit pumps (220 gpm each), and an odor control solid bed (1,800 square feet, 48-inch media depth).

b. Biological Treatment Processes: The biological treatment process consists of three aeration basins (One has a volume of 1.6 million gallons (MG) and the other two, each has a volume of 1.38 MG.). The biological treatment system is aerated by 11 surface aerators (3 @ 75 hp and 8 @ 60 hp).
c. Clarification System: The clarification system consists of three secondary clarifiers (one @ 100-foot diameter, 10-foot side water depth; two @ 85-foot diameter, 14-foot side water depth).
d. Filtration System: The filtration system consists of four filter influent pumps (4,170 gpm each), one continuously backwashed Dynas and filter system (8 @ 50-sq.ft sections, each with 4-modules with 40- inches of media depth), two air compressors (125 cfm @ 125 psig), two filter compressors (125 cfm @ 125 psig), and two filter air dryers (100 cfm each).
e. Disinfection System: The disinfection system consists of three chlorine contact basins (0.18 Mgal. total) and two 6,000-gallon sodium hypochlorite storage tanks, and seven pumps (5 @ 7 gph and 2 @ 24.6 gph).
f. Dechlorination System: The system consists of one 2,000-gal sodium bisulfite storage tank and two peristaltic hose feed pumps (7.0 gph each).
g. Biosolids Treatment Process: The biosolids treatment process consists of two aerobic digesters (1.25 MG each) one equipped with a surface aerators (100 hp) and diffused aeration (100 hp), one with diffused aeration (3@200hp) , three digested sludge feed pumps (400 gpm each), one gravity sludge thickener (40 feet diameter), two gravity belt sludge thickeners (2 meter width each), three sludge thickening polymer blend/feed units, and one sludge thickening bulk storage tank (4,500 gal).

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	Annual Average	Monthly Average	Weekly Average	Single Sample	Monitoring Frequency	Sample Type	Monitoring Location Site Number	Notes
Flow (to D-001)	MGD	Max	7.5	Report Only			Continuous	Recording Flow Meter with Totalizer	EFD-1	See I.A.4
BOD, Carbonaceous 5-day, 20 C	mg/L	Max	5.0	5.0	7.5	10.0	5 Days/Week	24-hr FPC	EFD-1	
Solids, Total Suspended	mg/L	Max	10.0	10.0	15.0	20.0	5 Days/ Week	24-hr FPC	EFD-1	
Coliform, Fecal	#/100mL	Max	200			800	5 Days/Week	Grab	EFD-1	See I.A.6 & I.A.7
E. Coli	#/100mL	Max					5 Days/Week	Grab	EFD-1	See I.A.6 & I.A.7
pH	s.u.	Max/min				6.4/8.4	Continuous	Meter	EFD-1	See I.A.3
Chlorine, Total Residual (For Disinfection)	mg/L	Min				0.5	Continuous	Meter	EFA-1	See I.A.3 & I.A.8
Chlorine, Total Residual (For Dechlorination)	mg/L	Max				0.01	Daily	Meter	EFD-1	

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			
Oxygen, Dissolved (DO)	mg/L	Min				6.0	Daily	Meter	EFD-1	See I.A.12
Oxygen demand, Ultimate *(Dec through March)*	mg/L	Max				52.0	5 Days/week	Calculated	CAL-1	See I.A.10
Oxygen demand, Ultimate *(April through November)*	mg/L	Max				38.0	5 Days/ week	Calculated	CAL-1	See I.A.10
Total Ammonia Nitrogen (as N) (effluent)	mg/L	Max	Report Only	Report Only	Report Only	Report Only	5 Days/ week	Grab	EFD-1	See I.A.9
Nitrogen, Total	mg/L	Max	Report Only	Report Only	Report Only	Report Only	5 Days/Week	24-hr FPC	EFD-1	
Nitrogen, Total	Ibs/month Ibs/year	Max Max					5 Days/ week	Calculated	CAL-3	See 1.A.11 & I.A.23
Temperature (°C), Water	Deg °C	Max				Report Only	5 Days/Week	Meter	EFD-1	See I.A.9
Phosphate, Ortho (as P)	mg/L	Max	Report Only	Report Only	Report Only	Report Only	Weekly	Grab	EFD-1	
Phosphorus, Total (as P)	mg/L	Max	Report Only	Report Only	Report Only	Report Only	Weekly	24-hr FPC	EFD-1	
Phosphorus, Total (as P)	Ibs/month Ibs/year	Max					Monthly	Calculated	CAL-3	See I.A.11 & I.A.23
Gamma BHC (Lindane)	µg/L	Max	0.063			0.08	Quarterly	24-hr FPC	EFD-1	

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			
Mercury, Total Recoverable	µg/L	Max				0.012	Quarterly	Grab	EFD-1	See.I.A.14
Silver, Total Recoverable	µg/L	Max				0.07	Quarterly	24-hr FPC	EFD-1	
Zinc, Total Recoverable	µg/L	Max				See I.A.11	Quarterly	24-hr FPC	EFD-1	See I.A.13
Cadmium, Total Recoverable	µg/L	Max				See I.A.11	Quarterly	24-hr FPC	EFD-1	See I.A.13
Hardness, Total (as CaCO3)	mg/L	Max				Report Only	Quarterly	24-hr FPC	EFD-1	See I.A.13
Cyanide, Total	µg/L	Max				Report Only	Quarterly	Grab	EFD-1	
BOD, Carbonaceous 5-day, 20°C	mg/L	Max				Report Only	Quarterly	Grab	SWB – 1 SWD – 1	See I.A.17
Solids, Total Suspended	mg/L	Max				Report Only	Quarterly	Grab	SWB – 1 SWD – 1	See I.A.17
Coliform, Fecal	#/100mL	Max				Report Only	Quarterly	Grab	SWB – 1 SWD – 1	See I.A.17
Oxygen, Dissolved (DO)	mg/L	Min				Report Only	Quarterly	Meter	SWB – 1 SWD – 1	See I.A.17

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			
Oxygen, Percent Saturation	Percent	Min				Report Only	Quarterly	Meter	SWB – 1 SWD – 1	See I.A.17
pH	s.u.	Max				Report Only	Quarterly	Meter	SWB – 1 SWD – 1	See I.A.17
Temperature (°C), Water	Deg °C	Max				Report Only	Quarterly	Meter	SWB – 1 SWD – 1	See I.A.17
Specific Conductance	µmhos/cm	Max				Report Only	Quarterly	Meter	SWB – 1 SWD – 1	See I.A.17
Nitrogen, Ammonia, Total (as N)	mg/L	Max				Report Only	Quarterly	Grab	SWB – 1 SWD – 1	See I.A.17
Nitrogen, Organic, Total (as N)	mg/L	Max				Report Only	Quarterly	Grab	SWB – 1 SWD – 1	See I.A.17
Nitrogen, Kjeldahl, Total (as N)	mg/L	Max				Report Only	Quarterly	Grab	SWB – 1 SWD – 1	See I.A.17
Nitrite plus Nitrate, Total (as N)	mg/L	Max				Report Only	Quarterly	Grab	SWB – 1 SWD – 1	See I.A.17
Nitrogen, Total	mg/L	Max				Report Only	Quarterly	Grab	SWB – 1 SWD – 1	See I.A.17
Phosphate, Ortho (as P)	mg/L	Max				Report Only	Quarterly	Grab	SWB – 1 SWD – 1	See I.A.17
Phosphorus, Total (as P)	mg/L	Max				Report Only	Quarterly	Grab	SWB – 1 SWD – 1	See I.A.17
Chlorophyll a	mg/L	Max				Report	Quarterly	Grab	SWB – 1 SWD – 1	See I.A.17

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)

			Effluent Limitations				Monitoring Requirements			
						Only				
Stream Flow	cfs	Max				Report Only	Quarterly	Grab	SWB – 1 SWD – 1	See I.A.17
Hardness, Total (as CaCO3)	mg/L	Max				Report Only	Quarterly	Grab	SWB – 1 SWD – 1	See I.A.17
Chronic Whole Effluent Toxicity, 7-Day IC25 (*Ceriodaphnia dubia*)	percent	Min				100	Semi-annually	24-hr FPC	EFD-1	See I.A.15
Chronic Whole Effluent Toxicity, 7-Day IC25 (*Pimephales promelas*)	percent	Min				100	Semi-annually	24-hr FPC	EFD-1	See I.A.15
Biological Data (flora and/or fauna)	Yes = 1 No = 0					Report Only	Annually	Grab	SWB – 1 SWD – 1	See I.A. 21 & I.A.23
Nutrient Thresholds – Nitrogen, Total	mg/L	Max	1.87	Annual Geometric Mean			Annually	Calculated	SWB – 1 SWD – 1	See I.A. 21 & I.A.23
Nutrient Thresholds – Phosphorus, Total (as P)	mg/L	Max	0.3	Annual Geometric Mean			Annually	Calculated	SWB – 1 SWD – 1	See I.A. 21 & I.A.23
OR Stream Condition Index	Yes = 1 No = 0						Annually	Grab	SWB – 1 SWD – 1	See I.A. 21 & I.A.23
Total Nitrogen, as N, Mass Load	Lbs/mon	Max	Report			Monthly Total	Monthly	Calculated	CAL-3	See II.5 & II.6
Phase II: Beginning on the effective date of the permit	Lbs/yr	Max	**134,506**			Annual Total				

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			
Total Nitrogen, as N, Mass Load **Final Phase: Beginning on the first day following the month of the Level-II WQBEL approval**	Lbs/mon	Max	Report			Monthly Total	Monthly	Calculated	CAL-3	See II.5 & II.6
	Lbs/yr	Max	40,380			Annual Total				
Total Nitrogen (as N)(Ambient Water)	mg/L	Max	Report		Annual Geometric Mean		Annually	Calculated	SWB – 1 SWD – 1	
Total Phosphorus (as P) (Ambient Water)	mg/L	Max	Report		Annual Geometric Mean		Annually	Calculated	SWB – 1 SWD – 1	
NNC (Nutrient and Nutrient	Biological Data (flora and/or fauna)		(See Condition III.A.2.c.i)				Annually		SWB – 1 SWD – 1	See.III.A.c.i

I.A.3. During the period of required operator attendance, hourly measurement of pH and total residual chlorine for disinfection may be substituted for continuous measurement.

I.A.4. A recording flow meter with totalizer shall be utilized to measure flow and calibrated at least once every 12 months.

I.A.6. The effluent limitations for the monthly geometric means for bacteriological quality (fecal coliform or E. coli) are only applicable if 10 or more values are reported. If fewer than 10 values are reported, the monthly geometric means shall be calculated and reported on the Discharge Monitoring Report but shall not be used to determine compliance with the limitations for the monthly geometric means. All other bacteriological quality effluent limitations included in permit condition I.A.1. apply regardless of the number of values reported.

I.A.7. To report the "90th percentile,"

• Place the bacteria results in ascending order (from lowest to highest value) and assign each sample a number, 1 for the lowest value.

• Multiply the total number of samples by 0.9 to determine the 90th percentile level.

• Report the value of the sample that corresponds to the 90th percentile level (e.g., 10 samples x 0.9 = 9, report the value of the 9th sample). If the 90th percentile level is not a whole number, rounding or interpolation should be used to determine the 90th percentile. When rounding, round down to the nearest whole number if the decimal is 0.4 or lower and round up to the nearest whole number if the decimal is 0.5 or higher (e.g., 12 samples x 0.9 = 10.8, report the value of the 11th sample if rounding).

I.A.8. Total residual chlorine must be maintained for a minimum contact time of 15 minutes based on peak hourly flow.

I.A.9. Effluent (i.e. the final treated wastewater) shall be monitored for pH and temperature at the same time and location as total ammonia nitrogen (TAN). The monthly average TAN value shall not exceed the average of the values calculated from the below equation, with no single value exceeding 2.5 times the value from the equation. To determine compliance with the monthly average and single sample limits for TAN is following calculations steps below:

a. Calculate TAN Criterion Value for a collected sample using the below equation:

$$TAN\ Criterion = 0.8876 \left(\frac{0.0278}{1+10^{7.688-pH}} + \frac{1.1994}{1+10^{pH-7.688}}\right) \text{ x } (2.126\ x\ 10^{0.028(20-T)})$$

Where:

• T and pH are the paired temperature (in degrees Celsius) and pH associated with the effluent TAN sample, i.e., measured at the same time and location as the effluent TAN sample is collected.

• For purposes of TAN criterion calculations, pH is subject to the range of 6.5 to 9.0. In the TAN criterion equation, the pH shall be set to 6.5 if the measured pH is less than 6.5 and set to 9.0 if the measured pH is greater than 9.0.

• The value of T shall be set to 7 if the measured temperature is less than 7°C.

b. Calculate TAN Limits:

• Monthly Average TAN Limit = Average TAN Criterion Values of the Month = $\frac{\sum TAN\ Criterion\ Value}{\sum \#\ of\ values}$

• Single Sample TAN limit = 2.5 x Calculated TAN Criterion Value

c. Calculate TAN Compliances: • Monthly Average TAN Compliance = Mon Avg TAN Eff. – Mon Avg TAN Limit ≤ 0.0

• Single Sample TAN Compliance = Single Sample TAN Eff.– Single Sample TAN Limit ≤ 0.0

I.A.11. The permittee shall calculate total monthly and total annual mass load of total nitrogen and total phosphorus for the discharge from Outfall D-001. The Total monthly mass load and total annual mass loads of total nitrogen or total phosphorus shall be calculated as follows:

a. Monthly Mass Load (ML)

ML (Lbs/Month) = Flow($\frac{MG}{Mon}$) x (TN or TP)($\frac{mg}{L}$) + x 8.34 ($\frac{L}{MG}$)($\frac{Lbs}{mg}$)

Where:

ML = Monthly mass load of total nitrogen; (Lbs/Mon)

Flow = Monthly volume of effluent discharged from Outfall D-001; (MG)

TN = Monthly average concentration of TN collected at EFD-1; (mg/L)

TP = Monthly average concentration of TP collected at EFD-1; (mg/L)

b. The annual mass load of TN or TP shall be expressed in units of pounds per year (Ibs/yr) and is computed using a rolling twelve (12) – month period. The calculation shall be the sum of the twelve most recent monthly mass loadings of total nitrogen or total phosphorus.

I.A.12. Limits of dissolved oxygen concentration and other pollutants (such as CBOD5 and TKN) of effluent shall be maintained such that the discharge does not degrade dissolved oxygen level of the receiving water/stream (Sweetwater Branch) below the Water Quality Criterion. The Criterion requires that 90 percent of the daily average percent dissolved oxygen (DO) saturation values of the stream shall be above 38%.

I.A.13. The limit for "Zinc, Total Recoverable" and "Cadmium, Total Recoverable" shall be calculated using the following equation(s):

$$Zn \square e^{(0.8473[\ln H]+0.884)} \quad Cd \square e^{(0.7409[\ln H]-4.719)}$$

Total hardness shall be measured at the time of the effluent sample. The "ln H" means the natural logarithm of total hardness expressed as mg/L of CaCO3. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is <25 mg/L and set at 400 mg/L if actual hardness is >400 mg/L.

The measured effluent value shall be recorded on the DMR in the parameter row for "Zinc, Total Recoverable" and "Cadmium, Total Recoverable" "(effluent)." The calculated effluent limit shall be recorded on the DMR in the parameter row for "Zinc, Total Recoverable" and "Cadmium, Total Recoverable" "(calculated limit)." Compliance with the effluent limitation is determined by calculating the difference between the measured effluent value and the calculated. The compliance value shall be recorded on the DMR in the parameter row for "Zinc, Total Recoverable" and "Cadmium, Total Recoverable" "(effluent minus calculated limit)." The compliance value shall not exceed 0.00.

I.A.14. EPA Method 1631E shall be used to analyze for mercury. Method 245.1 with a MDL of 4.2 ng/L operated in the high sensitivity mode can be used as for initial screening for mercury. If mercury is not detected (e.g., the results are less than the MDL of 4.2 ng/L), then mercury is in compliance with the water quality criterion of Rule 62-302.530(41), FAC. However, for any sample results that have a value greater than the MDL of 4.2 ng/L but less than the PQL, the permittee shall conduct an additional evaluation for mercury using Method 1631E.

I.A.15.

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) 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 6 months (semi-annually) starting within 6 months of the most recent test, and lasting for the duration of the 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.**

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

- Quality Assurance Requirements

a) A standard reference toxicant (SRT) quality assurance (QA) chronic toxicity test shall be conducted with each species used in the required toxicity tests either concurrently or initiated no more than 30 days before the date of each routine or additional follow-up test conducted. Additionally, the SRT test must be conducted concurrently if the test organisms are obtained from outside the test laboratory unless the test organism supplier provides control chart data from at least the last five monthly chronic toxicity tests using the same reference toxicant and test conditions. If the organism supplier provides the required SRT data, the organism supplier's SRT data and the test laboratory's monthly SRT-QA data shall be included in the reports for each companion routine or additional follow-up test required.

b) If the mortality in the control (0% effluent) exceeds 20% for either species in any test, or any other test acceptability criteria are not met, then the test for that species (including the control) shall be invalidated and the test repeated. Test acceptability criteria for each species are defined in EPA-821-R-02-013, Section 13.12 (***Ceriodaphnia dubia***) and Section 11.11 (***Pimephales promelas***). The repeat test shall begin within 21 days after the last day of the invalid test.

c) If 100% mortality occurs in all effluent concentrations for either test species prior to the end of any test and the control mortality is less than 20% at that time, then the test (including the control) for that species shall be terminated with the conclusion that the test fails and constitutes non-compliance.

d) Routine and additional follow-up tests shall be evaluated for acceptability based on the observed dose-response relationship as required by EPA-821-R-02-013, Section 10.2.6., and the evaluation shall be included with the bioassay laboratory reports.

- Reporting Requirements

a) Results from all required tests shall be entered on the Discharge Monitoring Report (DMR) as the calculated IC_{25} for each test species.

b) A bioassay laboratory report for each routine test shall be prepared according to EPA-821-R-02-013, Section 10, Report Preparation and Test Review, and **e-mailed** or mailed to the Department at the address below **within 30 days** after the last day of the test.

c) For additional follow-up tests, a single bioassay laboratory report shall be prepared according to EPA-821-R-02-013, Section 10, and **e-mailed** or mailed **within 30 days** after the last day of the second valid additional follow-up test.

d) Data for invalid tests shall be included in the bioassay laboratory report for the repeat test.

e) The same bioassay data shall not be reported as the results of more than one test.

f) All bioassay laboratory reports shall be **e-mailed** (DEP_NED@dep.state.fl.us) or mailed **within 30 days** *to Jacksonville* only:

Florida Department of Environmental Protection
Northeast District – Wastewater Section 8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

g) Test Failures

(1) A test fails when the test results do not meet the limits in 15.a.(1).

- Additional Follow-up Tests:

a) If a routine test does not meet the chronic toxicity limitation in 15.a.(1) above, then the permittee shall notify the Department at the address above within 21 days after the last day of the failed routine test and conduct two additional follow-up tests on each species that failed the test in accordance with 15.d.

b) The first test shall be initiated within 28 days after the last day of the failed routine test. The remaining additional follow-up tests shall be conducted weekly thereafter until a total of two valid additional follow-up tests are completed.

c) The first additional follow-up test shall be conducted using a control (0% effluent) and a minimum of five dilutions: 100%, 50%, 25%, 12.5%, and 6.25% effluent. The permittee may modify the dilution series in the second additional follow-up test to more accurately bracket the toxicity such that at least two dilutions above and two dilutions below the target concentration and a control (0% effluent) are run. All test results shall be analyzed according to the procedures in EPA-821-R-02-013.

- In the event of three valid test failures (whether routine or additional follow-up tests) within a 12-month period, the permittee shall notify the Department within 21 days after the last day of the third test failure.
  a) The permittee shall submit a plan for correction of the effluent toxicity within 60 days after the last day of the third test failure.
  b) The Department shall review and approve the plan before initiation.
  c) The plan shall be initiated within 30 days following the Department's written approval of the plan.
  d) Progress reports shall be submitted quarterly to the Department at the address above.
  e) During the implementation of the plan, the permittee shall conduct quarterly routine whole effluent toxicity tests in accordance with 15.d. Additional follow- up tests are not required while the plan is in progress. Following completion or termination of the plan, the frequency of monitoring for routine and additional follow-up tests shall return to the schedule established in 15.b.(1). If a routine test is invalid according to the acceptance criteria in EPA-821-R-02-013, then a repeat test shall be initiated within 21 days after the last day of the invalid routine test.
  f) Upon completion of four consecutive quarterly valid routine tests that demonstrate compliance with the effluent limitation in 15.a.(1) above, the permittee may submit a written request to the Department to terminate the plan.
  The plan shall be terminated upon written verification by the Department that the facility has passed at least four consecutive quarterly valid routine whole effluent toxicity tests.
  g) If a test within the sequence of the four is deemed invalid, but is replaced by a repeat valid test initiated within 21 days after the last day of the invalid test, then the invalid test will not be counted against the requirement for four consecutive quarterly valid routine tests for the purpose of terminating the plan.
- If chronic toxicity test results indicate greater than 50% mortality within 96 hours in an effluent concentration equal to or less than the effluent concentration specified as the acute toxicity limit in 15.a.(2), then the Department may revise this permit to require acute definitive whole effluent toxicity testing.
- The additional follow-up testing and the plan do not preclude the Department taking enforcement action for acute or chronic whole effluent toxicity failures.

I.A.17. The Permittee shall continue regular monitoring of the segment of the Sweetwater Branch near the outfall for study and reporting on the impact of the discharge to the water quality of the surface water body. Monitoring shall be on a quarterly basis and shall coincide with the monthly effluent nutrient monitoring event. Metered parameters (pH, DO, temperature and specific conductance) shall be sampled at the mid-depth. Grab samples at mid depth for the other parameters is adequate.

I.A.21. The Permittee shall monitor for chlorophyll a levels, algal mats or blooms, nuisance macrophyte growth, and changes in algal species composition, and the results shall indicate there are no imbalances in flora or fauna of the segment of the Sweetwater Brach near the point of discharge. The permittee shall also monitor for either stream condition index (SCI) or nutrients (total nitrogen (TN) and total phosphorus (TP)) of the segment of Sweetwater Branch and shall meet limitations as shown below:

a) If SCI is selected to be monitored, the average score of at least two independent SCIs performed is 40 or higher, with neither of the two most recent SCI scores less than 35.

b) If the nutrients are selected to be monitored, the annual geometric mean concentrations of TN and TP shall not to be exceeded 1.87 mg/L and 0.30 mg/L, respectively, for more than once in any three calendar year period (Peninsula NNC criteria). *[62-302.531(2)(c)]*

c) If the numeric nutrient criteria is determined to be met with monitoring the stream for the TN and the TP concentrations, the annual geometric mean is determined based on all
ambient samples collected during a calendar year. *[62-302.531(6)]*

I.A.23. The Permit Conditions I.A. 21 and I.A.22 are held in abeyance until the final compliance date listed in Section VI.1. of the permit is completed.

PART I: Continued

Receiving Waters:	**Classification (indicate whether fresh or marine):**
Sweetwater Branch	Class III Freshwaters, WBID: 2711

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

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 (IC_{25}) 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 LC_{50} 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 6 months starting within 6 months of the most recent test and lasting for the duration of the permit. Upon completion four consecutive valid routine tests, that demonstrate compliance within the effluent limitation, the permittee may petition the Department for a reduction in frequency for toxicity monitoring.

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

Consent Order 19-1267 was issued on 12/5/2022.

AO 136 NE was issued with the current permit on 4/16/2020.

Action Items to Complete Site Specific Interpretations of Numeric Nutrient Criteria for the Receiving Waterbody		Date Due
(1)	Develop a Plan of Study (POS), including an implementation schedule to conduct biological, water quality sampling, and stream condition index (SCI) for the receiving waterbody near the point of discharge for evaluation of impact of the discharge to the waterbody, **OR**	Completed
Action Items to Complete Site Specific Interpretations of Numeric Nutrient Criteria for the Receiving Waterbody		Date Due
	Develop a Primary Site Specific Interpretation (PSSI) of NNC, which may include a Level II Water Quality Based Effluent Limitations (WQBEL), or site specific alternative criteria (SSAC) for nutrients or nutrient response variables, or other relief under the provisions of Chapters 62-4, 62-110 and 62-302, F.A.C.	Completed
(2)	Submit the Plan of Study **or** the Primary Site Specific Interpretation of the NNC and schedule a meeting with FDEP – Northeast District Staff to discuss the POS **or** PSSI.	Completed
(3)	Begin Implementing the approved POS **or** PSSI.	Completed

(4)	Submit first report summarizing progress toward compliance with the requirements of Chapter 62 – 303.531(2), FAC (Site specific Numeric Interpretations of Narrative Nutrient Criteria) for Sweetwater Branch.	Completed
(5)	Submit second report summarizing progress toward compliance with the requirements of Chapter 62 – 303.531(2), FAC (Site specific Numeric Interpretations of Narrative Nutrient Criteria) for Sweetwater Branch.	Completed
(6)	Submit third report summarizing progress toward compliance with the requirements of Chapter 62 –	Completed
Action Items to Complete Site Specific Interpretations of Numeric Nutrient Criteria for the Receiving Waterbody		Date Due
	303.531(2), FAC (site specific Numeric Interpretations of Narrative Nutrient Criteria) for Sweetwater Branch.	
(7)	Submit fourth report and final report summarizing progress toward compliance with the requirements of Chapter 62 – 303.531(2), FAC (site specific Numeric Interpretations of Narrative Nutrient Criteria) for Sweetwater Branch. Contact the DEP NED office and arrange for a pre-application meeting.	Completed
(8)	Submit permit application concerning the path forward toward compliance with the requirements of Chapter 62 – 303.531(2), FAC (Numeric Interpretations of Narrative Nutrient Criteria) for Sweetwater Branch. The Department will review application for completeness within 30 days of receipt. Permittee shall respond to requests for additional information within 30 days of receipt.	Completed
(9)	Submit complete application to DEP. DEP will issue final permit within 90 days.	Within 30 days of receiving Department approval
Action Items to Complete Site Specific Interpretations of Numeric Nutrient Criteria for the Receiving Waterbody		Date Due
(10)	Start to implement the approved plan of action upon receiving approval from the Department in the final issued permit.	Within 30 days upon receiving the permit revision issue date
(11)	Submit progress report of implementation and demonstrate the segment of Sweetwater Branch where the POD is located shall comply with the requirements of Chapter 62 – 303.531(2), FAC (Site Specific Numeric Interpretations of Narrative Nutrient Criteria).	Within 180 days upon receiving the permit revision issue date

(12)	Submit final report demonstrating the segment of Sweetwater Branch where the POD is located shall comply with the requirements of Chapter 62 – 303.531(2), FAC (Site Specific Numeric Interpretations of Narrative Nutrient Criteria).	Within 360 days upon receiving the permit revision issue date
ACTION ITEM		DUE DATE
Phase I: Beginning on the effective date of the Permit		
A.Main Street Water Reclamation Facility Improvements		
(1)	Submit a written notification to the Department that design of improvements/modifications to the Main Street WRF (facility) has begun	Completed
(2)	Complete design of the improvements/modifications to the facility, bid documents, and submit application for a permit revision if it is required	Completed
(3)	Begin construction of the improvements (notify DEP in writing)	Completed
(4)	Complete construction and submit Notification of Completion of Construction (DEP Form 62- 620.910(12)) if a permit revision was required.	Complete
B. Paynes Prairie Sheetflow Restoration Project (PPSRP)		
(1)	Complete thirty percent (30%) plans design of the PPSRP (notify DEP in writing)	Completed
(2)	Complete sixty percent (60%) plans design of the PPSRP (notify DEP in writing)	Completed
(3)	Submit permit application to SJRWMD (notify DEP in writing)	Completed
(4)	Submit the plans to Alachua County for review (notify DEP in writing)	Completed
(5)	Update on status of Section 319 grant (notify DEP in writing)	Completed
(6)	Complete ninety percent (90%) plans design of the PPSRP (notify DEP in writing)	Completed
(7)	Update on status of TMDL water quality restoration grant (notify DEP in writing)	Completed
(8)	Complete one hundred percent (100%) of the design of the PPSRP and bid document (notify DEP in writing)	Completed
(9)	Submit a completed ERP permit application to SJRWMD and/or DEP	Completed
(10)	Cost share funding appropriated (notify DEP in writing)	Completed
(11)	Construction contractor selected notice to proceed (notify DEP in writing)	Completed

(12)	Beginning construction of the PPSRP (notify DEP in writing)	Completed
Phase II: Beginning on the Effective Date of the permit		
(1)	Submit to DEP first report summarizing construction progress of the PPSRP	Completed
(2)	Submit to DEP second report summarizing progress construction of the PPSRP	Complete
(3)	Submit to DEP third report summarizing construction progress of the PPSRP	Completed
(4)	Complete construction of the PPSRP (notify DEP in writing)	Completed
(5)	Submit Notification of Completion of Construction (DEP Form 62-620.910(12))if required.	Completed
Final Phase: Beginning upon the Level-II WQBEL Approval		
(1)	The facility shall begin to comply with the current final mass load allocation for total nitrogen of 40,380 lb/year (or allocation limits as established by the Level II WQBEL based on the site specific NNC interpretation if different).	Beginning on the first day following the month of the Level-II WQBEL approval
(2)	The facility shall comply with final mass load allocation for total nitrogen of 40,380 lb/year (or allocation limits as established by the Level II WQBEL based on the site specific NNC interpretation if different).	Twelve months following the month of the Level-II WQBEL approval

Facility Mixing Zone Details (if applicable):
N/A

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

Date	Parameter and Units	Limit	Result
12/31/2023	Nitrogen, Total mg/L	1.87	3.57
12/31/2023	Chloride (as Cl) mg/L	250	441
12/31/2023	Solids, Total Dissolved (TDS) mg/L	500	1260
01/31/2024	Nitrogen, Total Ib/yr	40380	87563
02/29/2024	Nitrogen, Total Ib/yr	40380	85404
03/31/2024	Cadmium, Total Recoverable µg/L	0	0.53
03/31/2024	Nitrogen, Total Ib/yr	40380	87824
03/31/2024	BOD, Carbonaceous 5 day, 20C mg/L	10	13
04/30/2024	Solids, Total Suspended mg/L	5	6
04/30/2024	Nitrogen, Total Ib/yr	40380	90457

05/31/2024	Nitrogen, Total lb/yr	40380	92999

Describe previous FYI and WQBEL study:
The previous CEI conducted as part of an FYI, was considered 'In Compliance'.

Describe previous or current Enforcement Actions (including WLs):
The facility is under CO 19-1267. The most recent warning letter which was issued on 4/1/2022 was to address the accumulated SSOs from both Kanapha WRF and Main Street WRF.

Describe any violations or problems noted in previous inspection:
No violations were noted in the previous inspection.

Discuss whether DMR trends within previous five years are improving or declining:
Parameters have remained consistent in the last 5 years with occasional exceedances. No signs that trends are declining. Parameters are improving with the aid of required implementations.

Additional Comments (this should include a trend of the Effluent, i.e. if the facility is now Reuse):
N/A

PART II: Sampling Event Information	
Date(s) sample collected: 10/28/2024, 10/30/2024, 11/01/2024	**Sampler(s): Conor Lucey, Bronze Titus**
Temperature (Deg C):24.7	**pH (SU):6.75**
Dissolved Oxygen (mg/L):8.52	**Conductivity (µmhos/cm):600**
Total Residual Chlorine (mg/L): 2.25	**Total Residual Chlorine - after Disinfection (mg/L): .09**
Method of Chlorination: Sodium hypochlorite	**Method of De-chlorination: bisulfite**
Flow During Sample Collection for each outfall(MGD): 10/28/2024 6.41 MGD 10/30/2024 6.59 MGD 11/01/2024 6.19 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): EFD-1 6.19 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: Due to high flow during the discharge grab samples grab via autosampler manual pump.	

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. *Escherichia coli* results are based on Most Probable Number (MPN) and shall not exceed 410 in 10% or more of the samples during any 30-day period (62-302.530(6)(b), F.A.C.). *Enterococci* results are based on Most Probable Number (MPN) and shall not exceed 130 in 10% or more of the samples during any 30-day period (62-302.530(6)(c), F.A.C.). 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.

- **Habitat Assessment**

  Habitat assessment is used to evaluate the physical structure and extent of disturbance in a waterbody. Eight aspects are ranked, with 20 possible points for each aspect (QA Rule SOP FT 3100). The Habitat Assessment score includes types and amounts of benthic substrates, water velocity, amount of sand or silt accumulation, extent of artificial channelization, bank stability, and riparian zone width and vegetation type. All scores are summed to yield an overall Habitat Assessment score. Habitat Assessment score ranges from 11-160 and overall habitat quality is assigned to one of four categories: Optimal (120-160 points), Suboptimal (80-119 points), Marginal (40-79 points), and Poor (11-39 points).

- **Algal Growth Potential (AGP)**

The algal growth potential (AGP) value is the peak growth of the alga within that 14-day period, recorded as mg dry weight/L. AGP results within the range 6.10 to 20.0 mg dry wt/L are suggested to be representative of high productivity for freshwaters (Miller et al. 1978). High AGP values may constitute exceedances of Subsection 62-302.530(47), F.A.C., Paragraph 62-302.530(48)(a), F.A.C. and/or Paragraph 62-302.530(48)(b), F.A.C.

The concentration of nutrients in a water sample may be used to calculate the expected yield of AGP under the assumption that other required nutrients (e.g. silicon, micronutrients) are present in excess (Miller *et al*. 1978). The expected amount of production is calculated as 38 times the total soluble inorganic nitrogen (nitrate and nitrite plus ammonia) under nitrogen limitation or 430 times the ortho-phosphate (OP) concentration under phosphorus limitation with an error of ± 20%. When the ratio of nitrogen to phosphorus (N: P) is less than 10:1, nitrogen limitation of algal production is likely. When the N: P ratio is 20:1 or greater, phosphorus limitation is likely (USEPA 2000). For ratios in-between, co-limitation may occur. Production of lower biomass than expected may be evidence of growth inhibition related to toxic compounds present in the water sample tested and may constitute an exceedance of Subsection 62-302.530(62), F.A.C. If a nutrient value is non-detect, predicted AGP (freshwater only) and N:P ratio (fresh and marine) is calculated using ½ the method detection limit (MDL) for non-detect value.

- **Benthic Macroinvertebrate Assemblages**

  Benthic macroinvertebrates were collected using two methods. Quantitative samples were collected from Hester-Dendy multi-plate samplers incubated for 28 days. Qualitative collections are made using 20 dipnet sweeps (QA Rule SOP FS7420). Benthic macroinvertebrates were sorted and identified to the lowest practical taxonomic level, usually species.

  - Taxa richness: Taxa richness is the number of distinct macroinvertebrate taxa present in a sample. Stress, habitat destruction and pollution tend to reduce the number of different types of organisms present (Karr and Chu 1998). Decreases in taxa richness related to a facility's effluent may constitute exceedances of Subsection 62-302.530(47), F.A.C., Paragraph 62-302.530(48)(a), F.A.C., Paragraph 62-302.530(48)(b), F.A.C. and/or Subsection 62-302.530(62), F.A.C.
  - Percent Contribution of Dominant Taxon: Percent contribution of the dominant taxon is calculated by dividing the number of individuals in the most abundant taxa by the total number of individuals counted. Percent contribution of the dominant taxon tends to increase with increasing perturbation (Plafkin *et al*., 1989). Increases in the percent contribution of the dominant taxon related to a facility's effluent may constitute exceedances of Subsection 62-302.530(47), F.A.C., Paragraph 62-302.530(48)(a), F.A.C. and/or Paragraph 62-302.530(48)(b), F.A.C.
  - Community Composition: Shifts in proportions of major groups of organisms downstream of a point source, compared to upstream, control conditions, may indicate negative effects of a discharge (Fore et. al. 2007, Karr and Chu 1998). Shifts in community composition related to a facility's effluent may constitute exceedances of Subsection 62-302.530(47) F.A.C., Paragraph 62-302.530(48)(a), F.A.C., Paragraph 62-302.530(48)(b), F.A.C. and/or Subsection 62-302.530(62), F.A.C.

- Functional Feeding Groups: Environmental degradation may differentially affect groups of invertebrates based on how the group feeds (e.g. predators, deposit feeders, etc.). In Florida, pollution may be responsible for reducing the numbers of filter feeders and shredders (Fore et. al. 2007). Changes in the proportions of functional feeding groups related to a facility's effluent may constitute exceedances of Subsection 62-302.530(47), F.A.C., Paragraph 62-302.530(48)(a), F.A.C., Paragraph 62-302.530(48)(b), F.A.C. and/or Subsection 62-302.530(62), F.A.C.
- Shannon-Weaver Diversity Index: This index is specified in Chapter 62-302 F.A.C. as a measure of biological integrity. Low diversity scores are undesirable. Where diversity is low, only a few taxa are abundant as compared to an area where many taxa are present in equitable abundance among taxa (Magurran 1988). A difference of 25% in Shannon-Weaver diversity between results from Hester-Dendy multiplate samplers incubated for 28 days at test and control sites constitute exceedances of Subsection 62-302.530(10), F.A.C.
- The Stream Condition Index (SCI): The SCI is a biological assessment tool that measures the degree to which flowing fresh waters support a healthy, well-balanced biological community, as indicated by aquatic, benthic macroinvertebrates. Macroinvertebrate taxonomic and abundance data are used to calculate ten biological metric scores, each of which has been shown to respond predictably to human disturbance (Fore et al. 2007; DEP SOP SCI 1000; DEP-SAS-001/11, incorporated into the Quality Assurance Rule by reference Paragraph 62-160.210(2)(a), F.A.C.). The points for each of the metric scores (0 to 10) are summed to yield a final SCI score (range 0-100). The ten metrics are percent contribution of Tanytarsini, number of sensitive taxa, percent contribution of very tolerant taxa, number of total taxa, number of Ephemeroptera taxa, number of Trichoptera taxa, percent contribution of the dominant taxon, the percent contribution of suspension and filter feeders, number of long-lived taxa, and number of clinger taxa. As human disturbance increases, it is expected that the number of total taxa, the number of Ephemeroptera taxa, Trichoptera taxa, sensitive taxa, clinger taxa, long-lived taxa, and the percent contribution of Tanytarsini and suspension and filter feeders will decrease while percent contribution of dominant taxon and percent contribution of very tolerant taxa will increase.

  The SCI can be used to determine faunal health associated with Rule 62-302.531, F.A.C. An average SCI score of 40 or higher from at least two temporally independent SCIs, performed at representative locations and times indicates a balanced faunal community. Neither of the two most recent SCI scores should be less than 35. Failure of the SCI indicates that the stream does not meet the Clean Water Act goal of biological integrity, as measured by community structure and function. A failing SCI could be due to water quality problems or other physical disturbance factors such as habitat disruption or hydrologic alterations. While the stressor may not be known, a failed SCI does indicate that fauna is not well-balanced. A failing SCI score, if it is shown to be related to a facility's effluent, may constitute exceedances of Subsection 62-302.530(47), F.A.C., Paragraph 62-302.530(48)(a), F.A.C., Paragraph 62-302.530(48)(b), F.A.C., or of Subsection 62-302.530(62), F.A.C.

- **Rapid Periphyton Survey**

  Rapid Periphyton Survey (RPS) is a rapid method to quantify the extent and abundance of attached algae (periphyton) in a stream or river. A total of 99 points are assessed within a 100m area of sampling reach, 9 equidistant points along 11 cross-section transects spaced 10 m apart, If greater than 20% of sampled points have algal lengths greater than 6mm, a sample is collected and the autecological information associated with the dominant algae is evaluated (see DEP SOP FS 7230 Rapid Periphyton Survey). This method could be used to determine floral health associated with Rule 62-302.531, F.A.C.

- **Linear Vegetation Survey**

  Linear Vegetation Survey (LVS) is a rapid screening tool for ecological condition, by determining how closely a site's flora resembles that of an undisturbed condition. When the total area of macrophytes equals or exceeds two square meters within the wetted area of the 100 m sampling reach, macrophyte taxonomic names are recorded (DEP SOP FS 7320 Stream and River Linear Vegetation Survey (LVS) Method). This method could be used to determine floral health associated with Rule 62-302.531, F.A.C.

- **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

Request Number: RQ-2024-09-30-36

FYI5 GRU - Main Street WRF (FL0027251) DW

Customer: NE-DIST

Project ID: FYI5

Florida Department of Environmental Protection

Central Laboratory Submittal Form

Page 1 of 6

last revised Jan 25, 2018

Requester: Benjamin Nomann

Collected By: Conor Lucey

Field Report Prepared By: Conor Lucey

Sampling Agency: FDEP/NED

Location			☐ Comp ☒ Grab	Collection (comp begin or grab) Date 10/24/2024 Time 11:40	Eastern / Central	Composite end Date	Time		Bottle Group(s) (See pg 2) F
Field ID			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 Ran through auto Sampler in Lab. Poured from auto Sampler Bottle				
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				
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
Conor Lucey	10/24/24 12:00	FedEx	1	MB	10/25/24 8:56

Request Number: RQ-2024-09-30-36

FYI5 GRU - Main Street WRF (FL0027251) DW

Florida Department of Environmental Protection

Central Laboratory Submittal Form

last revised Jan 25, 2018

Customer: NE-DIST

Project ID: FYI5

Requester: Benjamin Nomann

Collected By: Conor Lucey Brooke Titus

Field Report Prepared By: Conor Lucey

Sampling Agency: FDEP

Local Field WIN/	FYI5 GRU Main Street WRF FL0027251 Effluent Grab EFD-1	☐ Comp ☑ Grab	Collection (comp begin or grab) Date 10/28/24 Time 11:20	Eastern Central	Composite end Date Time	Bottle Group(s) (See pg 2) A					
		Matrix (type, e.g., Salt, Fresh, etc) Effluent	Diss. Oxygen 8.52 102.9	☐ mg/L ☑ % sat	Total Res. Chlorine (mg/L) 0.09						
		Temp (C) 24.7	pH 6.75	Sample Depth ☐ ft ☐ m	Sp. Conductance (umho/cm) 600						
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments Grabbed via auto sampler manual pump								
Locatic Field II WIN/S	FYI5 GRU Main Street WRF FL0027251 Effluent Comp EFD-1	☑ Comp ☐ Grab	Collection (comp begin or grab) Date 10/28/24 Time 10:30	Eastern Central	Composite end Date 10/28/24 Time 10:30	Bottle Group(s) B					
		Matrix (type, e.g., Salt, Fresh, etc) Effluent 10127124	Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)						
		Temp (C)	pH	Sample Depth ☐ ft ☐ m	Sp. Conductance (umho/cm)						
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments Pulled at 11:15								
Location Fi WI Lat	FYI5 GRU Main Street WRF FL0027251 Field Blanks	☐ Comp ☑ Grab	Collection (comp begin or grab) Date 10/28/24 Time 11:45	Eastern Central	Composite end Date Time	Bottle Group(s) E					
		Matrix (type, e.g., Salt, Fresh, etc) DI water	Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)						
		Temp (C)	pH	Sample Depth ☐ ft ☐ m	Sp. Conductance (umho/cm)						
☐ dms	☐ 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
C.L	10/28/24 2:45	FedEX	4		

Eurofins Jacksonville
8021-6 Philips Highway
Jacksonville, FL 32256
Phone (904) 296-3007 Phone (904) 296-6210

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Conor Lucas	Lab PM: Savoie, Noel	Carrier Tracking No(s):	COC No: 762-4973-783.1
Client Contact: Sarah Menz	Phone: 850-245-8857	E-Mail: Noel.Savoie@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: DEP - Bureau of Labs Biology Section	PWSID:	Analysis Requested		Job #:
Address: Twin Towers Lab Complex A Rm 216 8515 2600 Blairstone Rd M	Due Date Requested:			Preservation Codes: R - NaThioSO4
City: Tallahassee	TAT Requested (days):			
State, Zip: FL, 32399	Compliance Project: Δ Yes Δ No			
Phone:	PO #: C402CA			Other:
Email: DEP-overflowmicro@floridadep.gov	WO #:			
Project Name: FY25 Gru-main St WRF	Project #: 76200778			
Site: Eff-1	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	IDEXX_ColQT_24H - Fecal Coliform	IDEXX_Ent_9H_QT - Enterococci	9223B_CIQ18_8H - E.Coli	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	R	R	R	X	
Effluent	10/28/24	11:20	G	Water			X	X			RQ-2024- 69-30-36

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Conor Lucas	Date/Time: 10/28/24 1:50	Company: FDEP	Received by:	Date/Time: 10/28/24 1350	Company: EET
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 9.1c on Ice T-096

Ver: 04/02/2024

Eurofins Jacksonville
8021-6 Philips Highway
Jacksonville, FL 32256
Phone (904) 296-3007 Phone (904) 296-6210

Chain of Custody Record

eurofins Environment Testing

Client Information	Sampler: Jeremy Parrish	Lab PM: Savoie, Noel	Carrier Tracking No(s):	COC No: 762-4973-783.1
Client Contact: Sarah Menz	Phone: 850-245-8857	E-Mail: Noel.Savoie@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: DEP - Bureau of Labs Biology Section	PWSID:	Analysis Requested		Job #:
Address: Twin Towers Lab Complex A Rm 216 6515 2600 Blairstone Rd N	Due Date Requested:			Preservation Codes: R - NaThioSO4
City: Tallahassee	TAT Requested (days):			
State, Zip: FL, 32399	Compliance Project: Δ Yes Δ No			
Phone:	PO #: C402CA			Other:
Email: DEP-overflowmicro@floridadep.gov	WO #:			
Project Name:	Project #: 76200778			
Site: FY15 GRU Mainstreet	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	IDEXX_ColQT_24H - Fecal Coliform	IDEX_Ent_8H_QT - Enterococci	9223B_ColQ18_8H - E.Coli	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	R	R	R	X	
20020092	10/29/24	1040		Water					1		RQ-2024- 09-30-36
20020091	10/28/24	1315		water					1		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Jeremy Parrish	10/29/24 1623	DEP	[signature]	10/28/24 1623	ET
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: Ice in the T-096

Ver: 04/02/2024

1 2 3 4 5 6 7 8 9 10 11 12 **13** 14

11/8/2024

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: 8/20/2024
Means of Contact: Email

Task Assignment Number: OV621 Maximum Cost: **$166.00** Turnaround Time: 5 BD

Sample Delivery Date: 10/15/2024

Project Name/Description:
RQ-2024-09-30-36;FY15 GRU - Main Street WRF (FL0027251) DW

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	4	4		$39.00		$156.00
217/Sample Disposal Fee:	4				$2.50		$10.00
Total Number of Containers Shipped:		4				**Total:**	**$166.00**

Page 14 of 16

QC Instructions:

Comments: Quote #

Samples released to Contract Lab by: Connor Lacy Date/Time: 10/28/24 3:02

Delivery Method: FedEX Shipping

Samples Accepted by: Devan R. Santiago Date/Time 10/29/24

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

2.7/2.7

670-50258 Chain of Custody

Request Number: RQ-2024-09-30-36

FYI5 GRU - Main Street WRF (FL0027251) DW

Customer: NE-DIST

Project ID: FYI5

Florida Department of Environmental Protection
Central Laboratory Submittal Form

last revised Jan 25, 2018

Requester: Benjamin Nomann

Collected By: Jeremy Parrish

Field Report Prepared By: J. Parrish

Sampling Agency: FDEP NERO

Location

WIN ID/Field ID: 20020092

Field ID

Sweetwater Br. Downstream of GRU STP

WIN/STOF

Latitude ☐dd ☐dms | Longitude ☐dd ☐dms

☐ Comp ☑ Grab | Collection (comp begin or grab) Date 10/28/24 Time 1040 Eastern Central | Composite end Date Time | Bottle Group(s) (See pg 2): C, D

Matrix (type, e.g., Salt, Fresh, etc): Fresh | Diss. Oxygen 8.16 ☐ mg/L ☐ % sat 97.3 | Total Res. Chlorine (mg/L)

Temp (C) 24.1 | pH 7.21 | Sample Depth 0.1 ☐ ft ☐ m | Sp. Conductance (umho/cm) 626

Salinity (ppt) 0.30 | Comments: 0. BOD to Eurofins

Location

WIN ID/Field ID: 20020091

Field ID

Sweetwater Br 50yd upstream STP

WIN/STOI

Latitude ☐dd ☐dms | Longitude ☐dd ☐dms

☐ Comp ☑ Grab | Collection (comp begin or grab) Date 10/28/24 Time 1315 Eastern Central | Composite end Date Time | Bottle Group(s): C, D

Matrix (type, e.g., Salt, Fresh, etc): FRESH | Diss. Oxygen 8.47 ☐ mg/L ☐ % sat 98.1 | Total Res. Chlorine (mg/L)

Temp (C) 24.5 | pH 7.67 | Sample Depth 0.3 ☐ ft ☒ m | Sp. Conductance (umho/cm) 571

Salinity (ppt) 0.28 | Comments: BOD to Eurofins

Location

Field ID

WIN/STORET #

Latitude ☐dd ☐dms | Longitude ☐dd ☐dms

☐ Comp ☐ Grab | Collection (comp begin or grab) Date Time Eastern Central | Composite end Date Time | Bottle Group(s)

Matrix (type, e.g., Salt, Fresh, etc) | Diss. Oxygen ☐ mg/L ☐ % sat | Total Res. Chlorine (mg/L)

Temp (C) | pH | Sample Depth ☐ ft ☐ m | Sp. Conductance (umho/cm)

Salinity (ppt) | Comments

Location

Field ID

WIN/STORET #

Latitude ☐dd ☐dms | Longitude ☐dd ☐dms

☐ Comp ☐ Grab | Collection (comp begin or grab) Date Time Eastern Central | Composite end Date Time | Bottle Group(s)

Matrix (type, e.g., Salt, Fresh, etc) | Diss. Oxygen ☐ mg/L ☐ % sat | Total Res. Chlorine (mg/L)

Temp (C) | pH | Sample Depth ☐ ft ☐ m | Sp. Conductance (umho/cm)

Salinity (ppt) | Comments

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
Jeremy Parrish	10/28/24 1630	FedEx	3	A Shaikh	10/29/24 8:53

Appendix D. Physical/ Chemical and Habitat Assessment Field Sheets

DEP Form FD 9000-3 Physical/Chemical Characterization Field Sheet

SAMPLE ID _____ ORG ID 2182A LATITUDE _____
COUNTY Alachua STORET # 20020092 LONGITUDE _____
DATE 10/28/2024 TIME 1040 SAMPLING AGENCY _____
SITE NAME Sweetwater Br. Downstream of GRU STP
FIELD ID/NAME _____ RECEIVING BODY OF WATER _____

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category):
Forest/Natural | Silviculture | Field/Pasture | Agricultural | Residential | Commercial | Industry | Other (Specify)

Landscape Development Intensity Index (LDI)

Local Watershed Erosion (select one): ☐ None ☒ Slight ☐ Moderate ☐ Heavy
Local Watershed NPS Pollution: ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy

Typical Width (m) Depth (m)/Velocity (m/sec) Transect
4.25 m wide
m/s 0.33 m/s m/s
m deep 0.25 m deep m deep

Width of Riparian Vegetation (m) on Each Buffer Side
Left Bank: 18 Right Bank: >18m

Hydrologic Modification Score (per FT 3101)

High Water Mark: 1 (m) + 0.25 (present depth) = 1.25 (above bed)

Artificially Impounded ☐ Yes ☐ No

Artificially Channelized: ☒ No ☐ Some recovery ☐ Mostly recovered, more sinuous ☐ Recent, severe

Canopy Cover % ☐ Open ☐ Lightly Shaded (11-45%) ☒ Heavily Shaded ☐ Moderate Shaded (46-80%)

SEDIMENT / SUBSTRATE

Sediment Oils ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

Sediment Odors ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ Other (Specify):

Smothering of Substrates
Sand Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐
Silt Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐
Algae Smothering: None ☒ Slight ☐ Moderate ☐ Severe ☐

SUBSTRATE TYPE
Assessment Tool: ☐ SCI ☐ RPS ☐ LVS ☐ LCI ☐ BioRecon

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)	21	2	
Undercut Banks / Roots	21	2	
Leaf Packs or Mat	21	1	
Aquatic Vegetation	21	1	
Rock or Shell Rubble	3.5	10	
Sand	95	4	
Mud / Muck / Silt			
Other			
Other			

WATER QUALITY

	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)
Top:								0.2
Mid:	0.1	24.1	7.21	8.16	97.3	626	0.30	☒ VOB
Bottom	0.2							TOTAL DEPTH 0.25

Meter ID: _____

Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐

Water Surface Oils Normal ☐ Sheen ☐ Globs ☐ Slick ☐ Other ☐

Water Sample Taken? ☒ Yes ☐ No
Sample Preserved? ☐ Yes ☐ No
Lot Number: _____ Exp: _____

Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) ☐

Algae Sample Taken? ☐ Yes ☒ No
Sample Preserved? ☐ Yes ☐ No
Lot Number: _____ Exp: _____

Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐

ABUNDANCE

	Not Obs.	Rare	Common	Abundant
Periphyton:	☐	☒	☐	☐
Fish:	☐	☐	☒	☐
Aquatic Plants:	☐	☐	☒	☐
Iron/Sulfur Bacteria:	☐	☒	☐	☐

System Type: Stream ☐ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐

AMBIENT FIELD CONDITIONS / NOTES:

☐ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM Jeremy Carrish / Kyle Coker SIGNATURE: Jeremy Carrish DATE: 10/28/24

62-160.800, F.A.C. Revision Date: January 2017

DEP Form FD 9000-5 Stream/River Habitat Assessment Field Sheet

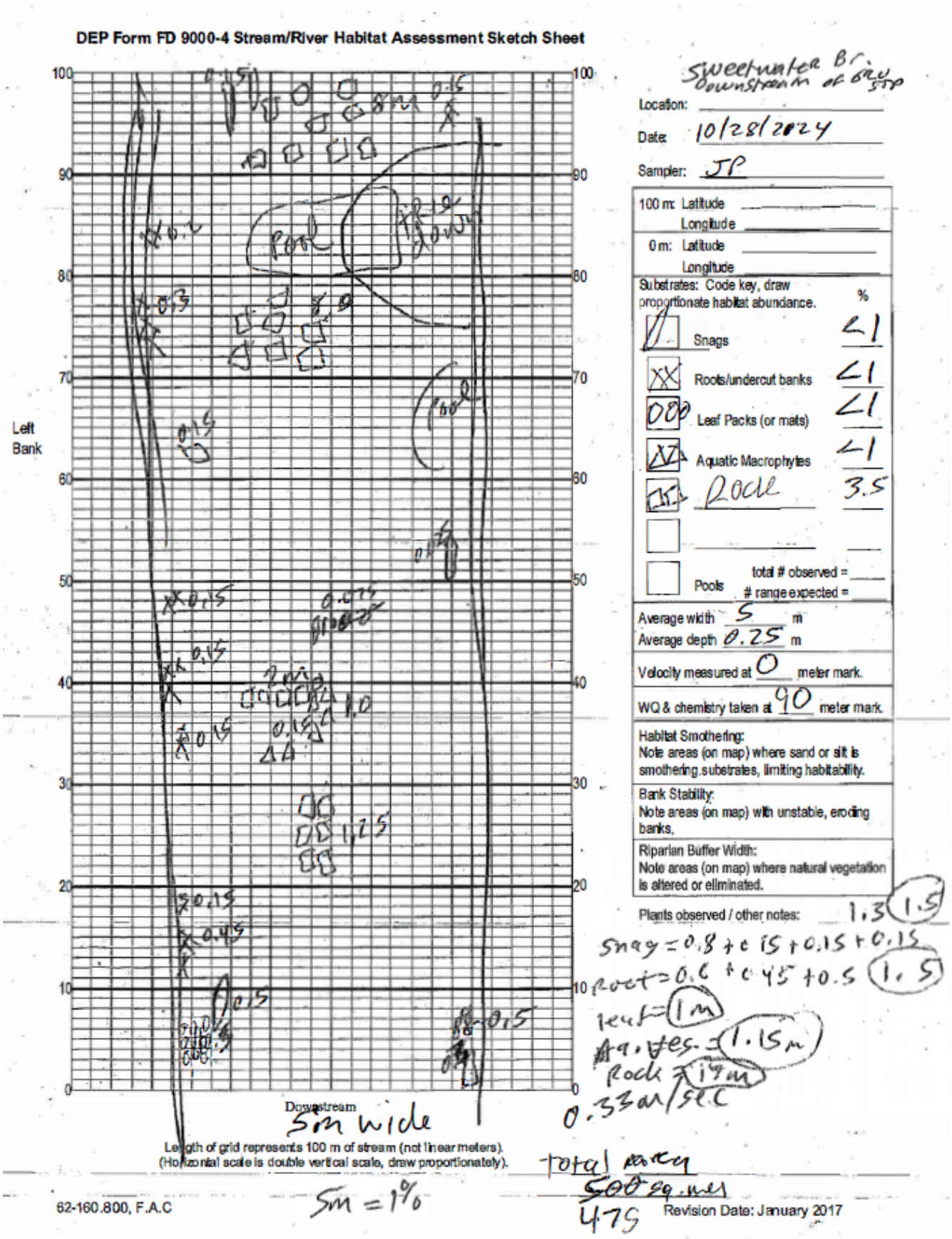
SAMPLING AGENCY: FDEP – NE ROC	STORET STATION NUMBER: 20020092	DATE (MM/DD/YY): 10/28/24	RECEIVING BODY OF WATER:
REMARKS:	COUNTY: Alachua	LOCATION: Downstream of Sweetwater Br. GRU STP	FIELD ID/NAME:

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 5	Four or more major productive habitats present (snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock) 20 19 18 17 16	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags) 15 14 13 12 11	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed 10 9 8 7 6	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered 5 4 3 2 1
Substrate Availability 6	Greater than 30% major productive habitat present at site 20 19 18 17 16	16% to 30% major productive habitat, by aerial extent 15 14 13 12 11	6% to 15% major productive habitat 10 9 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity 20	Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec ≥0.33 0.31 0.29 0.27 >0.25 20 19 18 17 16	Max. observed at typical transect: >0.1 to 0.25 m/sec 0.25 0.21 0.17 0.13 >0.1 15 14 13 12 11	Max. observed at typical transect: 0.05 to 0.1 m/sec 0.1 0.09 0.07 0.06 0.05 10 9 8 7 6	Max. observed at typical transect: <0.05 m/sec; or spate occurring: > 1 m/sec <0.05 0.04 0.03 0.01 <0.01 5 4 3 2 1
Habitat Smothering 14 Primary Score 45	Adeqdate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. 20 19 18 17 16	Adequate number of stable pools (1-2 per 12 times width) and >25% of habitats affected by sand, silt, or algae. 15 14 13 12 11	Does not have required number of stable pools (1-2 per 12 x width) and/or has shallow pools (<2 x prevailing depth). 10 9 8 7 6	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation. 5 4 3 2 1
Secondary Habitat Components **Artificial Channelization** 18	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. 20 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging or straightening in the past (>25 yrs) but mostly recovered. 15 14 13 12 11	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area. 10 9 8 7 6	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks. 5 4 3 2 1
Bank Stability Right Bank 2 Left Bank 2	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the woody root zone with few raw, eroded areas. 10 9	Only meets 2 of the 3 requirements for optimal bank stability. 8 7 6	Only meets 1 of the 3 requirements for optimal bank stability. 5 4	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the woody root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width Right Bank 10 Left Bank 9	Width of vegetation greater than 18 m 10 9	Width of vegetation >12 to 18m 8 7 6	Width of vegetation 6 to 12 m. human activities close to system 5 4	Less than 6 m of buffer zone due to intensive human activities 3 2 1
Riparian Zone Vegetation Quality Right Bank 8 Left Bank 6 Secondary Score 57	Over 80% of riparian surfaces consist of normal, expected plant community for given sunlight & habitat conditions (e.g., native plants; tree, shrub, and forbs represented, if appropriate). Minimal disturbance. 10 9	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed. 8 7 6	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious. 5 4	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). 3 2 1

102 **TOTAL SCORE**

Date: 10/28/24	Analyst: Jeremy Parrish / Kyle Coleen	Signature: Jeremy Parrish

62-160.800, F.A.C. Revision Date: January 2017



DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet

Sweetwater Br. downstream of GRU STP

Location:

Date: 10/28/2024

Sampler: JP

100 m: Latitude
Longitude

0 m: Latitude
Longitude

Substrates: Code key, draw proportionate habitat abundance.	%
Snags	<1
Roots/undercut banks	<1
Leaf Packs (or mats)	<1
Aquatic Macrophytes	<1
Rock	3.5
Pools — total # observed = ___ ; # range expected = ___	

Average width 5 m
Average depth 0.25 m

Velocity measured at 0 meter mark.

WQ & chemistry taken at 90 meter mark.

Habitat Smothering:
Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

Bank Stability:
Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:
Note areas (on map) where natural vegetation is altered or eliminated.

Plants observed / other notes: 1.3 (1.5)

Snag = 0.8 + 0.15 + 0.15

Root = 0.6 + 0.45 + 0.5 (1.5)

Left Bank

Downstream

5m wide

Length of grid represents 100 m of stream (not linear meters).
(Horizontal scale is double vertical scale, draw proportionately).

5m = 1%

0.33 m/sec

total area
500 sq. m
475

62-160.800, F.A.C

Revision Date: January 2017

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Sweetwater Br. Downstream of Rev Sta | County: Alachua | Date: 10/28/2024 | Investigators:

STORET Station Number: 20020092

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1	N		
	2			
	3			
	4			80
	5			
	6			
	7			
	8			
	9	↓		
10	1	N		
	2			
	3			
	4			56
	5			
	6			
	7			
	8			
	9	↓		
20	1	N		
	2			
	3			
	4			28
	5			
	6			
	7			
	8			
	9	↓		
30	1	N		
	2			
	3			
	4			72
	5			
	6			
	7			
	8			
	9	↓		
40	1	N		
	2			
	3			
	4			80
	5			
	6			
	7			
	8			
	9	↓		
50	1	N		
	2			
	3			
	4			96
	5			
	6			
	7			
	8			
	9	↓		

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
60	1	N		
	2			
	3			
	4			84
	5			
	6			
	7			
	8			
	9	↓		
70	1	N		
	2			
	3			
	4			72
	5			
	6			
	7			
	8			
	9	↓		
80	1	N		
	2			
	3			
	4			60
	5			
	6			
	7			
	8			
	9	↓		
90	1	N		
	2			
	3			
	4			86
	5			
	6			
	7			
	8			
	9	↓		
100	1	N	N	
	2			
	3			
	4			82
	5			
	6			
	7			
	8			
	9	↓	↓	

Secchi depth	0.25
Estimated?	VOB

# points ranked 4-6	0
total points assessed	
% points ranked 4-6	

Check accompanying data collected at same site/date.

Algal mat sample	
Linear Veg Survey	
Habitat Assessment	
SCI/Biorecon	
Water sample	
RQ-	

Algal Thickness Rank

N	rough, no algae, slimy, algae up to 1mm
3	>1mm - 6mm
4	>6mm - 20mm
5	>20mm - 10 cm
6	>10 cm

Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached.

Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank.

Record canopy cover as the number of small densiometer quadrants (out of 96) that HAVE canopy cover. Measure facing upstream at point 4, 5, or 6.

Collect algal mat sample following DEP SOP FS 7240 if the percentage of total sampled points with a thickness rank of 4, 5, or 6 is >20%.

62-160.800, F.A.C. Revision Date: January 2017

DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Waterbody: Sweetwater DO Wrstream Date: 6/28/24 County: Alachua Storet Number: 20020002

Analyst: Jung Pan Signature:

Comments:

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1m² of taxa present). Note in the boxes below if no dominant are selected, and note total macrophyte abundance rank for each section. Only the most common taxa are listed, so use blank spaces for additional taxa names.

HERBACEOUS SPECIES	Meter Mark 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Alternanthera philoxeroides											
Bacopa caroliniana											
Bacopa monnieri											
Bidens mitis											
Boehmeria cylindrica											
Centella asiatica											
Ceratophyllum demersum											
Chara											
Cicuta maculata											
Cladium jamaicense											
Colocasia esculenta											
Commelina diffusa											
Commelina virginica											
Crinum americanum											
Diodia virginiana											
Eichhornia crassipes											
Eleocharis (wispy vivíparous)											
Hydrilla verticillata											
Hydrocotle											
Hygrophila polysperma											
Hymenocallis											
Lachnanthes caroliniana											
Landoltia punctata											
Lemna											
Limnophila sessiflora											
Ludwigia leptocarpa											
Ludwigia palustris											
Ludwigia peruviana											
Ludwigia repens											
Luziola fluitans											
If no Dominant or Co-Dominant were selected, indicate with "X"											
Indicate % cover macrophytes per section											
0-5% Macrophyte Coverage				X							
>5 and ≤10% Macrophyte Coverage											
>10 and ≤25% Macrophyte Coverage											
>25 and ≤50% Macrophyte Coverage											
> 50% Macrophyte Coverage											

HERBACEOUS SPECIES	Meter Mark 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Micranthemum glomeratum											
Micranthemum umbrosum											
Myriophyllum aquaticum											
Najas guadelupensis											
Nuphar luteum											
Orontium aquaticum											
Panicum hemitomon											
Panicum repens											
Panicum rigidulum											
Pistia stratiotes											
Polygonum glabra											
Polygonum hydropiperoides											
Polygonum punctatum											
Pontederia cordata											
Potamogeton illinoensis											
Ruellia simplex											
Sacciolepis striata											
Sagittaria kurziana											
Sagittaria lancifolia											
Sagittaria latifolia											
Salvinia minima											
Samolus parviflora											
Saururus cernuus											
Sparganium americanum											
Typha											
Vallisneria americana											
Zizania aquatica											

62-160.800, F.A.C. page 1 of 2 Revision Date: January 2017

DEP Form FD 9000-3 Physical/Chemical Characterization Field Sheet

SAMPLE ID _____ ORG ID _____ LATITUDE _____
COUNTY Alachua STORET # 20020091 LONGITUDE _____
DATE 10/28/2024 TIME 1315 SAMPLING AGENCY _____
SITE NAME Sweetwater Br. 50yd upstream STP
FIELD ID/NAME _____ RECEIVING BODY OF WATER _____

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industry	Other (Specify)

Landscape Development Intensity Index (LDI): _____

Local Watershed Erosion (select one): ☐ None ☒ Slight ☐ Moderate ☐ Heavy

Local Watershed NPS Pollution: ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy

Width of Riparian Vegetation (m) on Each Buffer Side
Left Bank: 18 Right Bank: 718

Hydrologic Modification Score (per FT 3101): _____

High Water Mark: 1.0 (m) + 0.4 (above present water level) = 1.4 (above bed) (present depth)

Artificially Impounded ☐ Yes ☐ No

Typical Width (m) Depth (m)/Velocity (m/sec) Transect
4 m wide
_____ m/s 0.3 m/s _____ m/s
_____ m deep 0.4 m deep _____ m deep

Artificially Channelized: ☐ No ☒ Some recovery ☐ Mostly recovered, more sinuous ☐ Recent, severe

Canopy Cover % ☐ Open ☒ Heavily Shaded ☐ Lightly Shaded (11-45%) ☐ Moderate Shaded (46-80%)

SEDIMENT / SUBSTRATE

Sediment Oils ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

Sediment Odors ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ Other (Specify):

Smothering of Substrates
Sand Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐
Silt Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐
Algae Smothering: None ☒ Slight ☐ Moderate ☐ Severe ☐

SUBSTRATE TYPE
Assessment Tool: ☒ SCI ☐ RPS ☐ LVS ☐ LCI ☐ BioRecon

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)			
Undercut Banks / Roots			
Leaf Packs or Mat	1	7	
Aquatic Vegetation			
Rock or Shell Rubble..	5	7	
Sand.....	94	6	
Mud / Muck / Silt.....			
Other			
Other			

WATER QUALITY

	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)
Top:								0.4
Mid:	0.2	22.5	7.67	8.47	98.1	571	0.28	☒ VOB
Bottom	0.4							TOTAL DEPTH 0.4

Meter ID: _____

Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐

Water Surface Oils Normal ☒ Sheen ☐ Globs ☐ Slick ☐ Other ☐

Water Sample Taken? ☒ Yes ☐ No
Sample Preserved? ☐ Yes ☐ No
Lot Number: _____ Exp: _____

Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) ☐

Algae Sample Taken? ☐ Yes ☐ No
Sample Preserved? ☒ Yes ☐ No
Lot Number: _____ Exp: _____

Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐

System Type: Stream ☐ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐ _____

ABUNDANCE

	Not Obs.	Rare	Common	Abundant
Periphyton:	☐	☒	☐	☐
Fish:	☐	☐	☒	☐
Aquatic Plants:	☐	☒	☐	☐
Iron/Sulfur Bacteria:	☐	☒	☐	☐

AMBIENT FIELD CONDITIONS / NOTES:

☐ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM Jeremy Pruitt / Kyle Cowen SIGNATURE: Jeremy Pruitt DATE: 10/28/24

62-160.800, F.A.C. Revision Date: January 2017

DEP Form FD 9000-5 Stream/River Habitat Assessment Field Sheet

SAMPLING AGENCY:		STORET STATION NUMBER:	DATE (MM/DD/YY):	RECEIVING BODY OF WATER:
21FLA NEROC		2002-0091	10/28/24	
REMARKS:	COUNTY: Alachua	LOCATION: Sweetwater Br, 50yd upstream STP		FIELD ID/NAME:

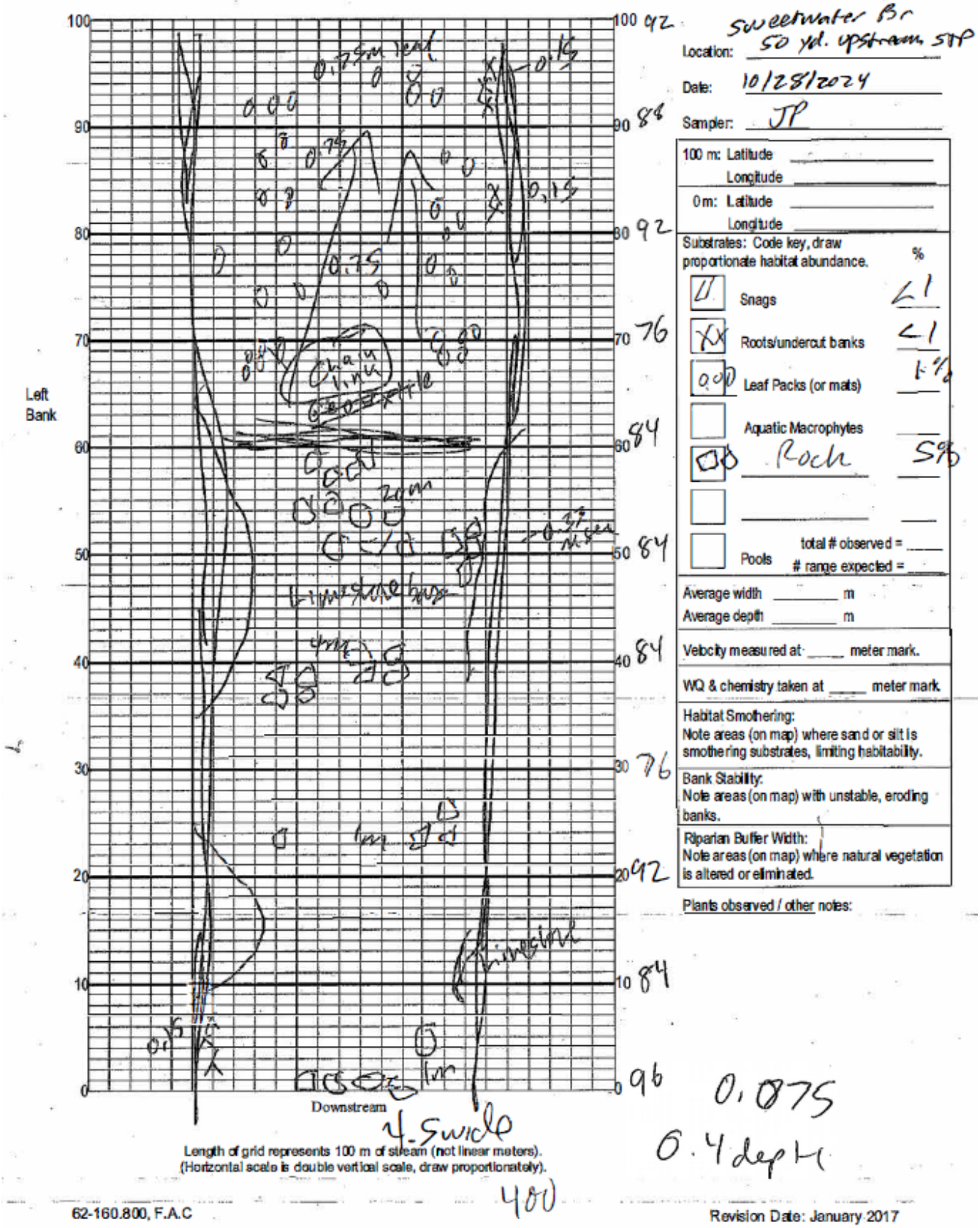
Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 6	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock] 20 19 18 17 16	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags) 15 14 13 12 11	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed 10 9 8 7 (6)	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered 5 4 3 2 1
Substrate Availability 6	Greater than 30% major productive habitat present at site 20 19 18 17 16	16% to 30% major productive habitat, by aerial extent 15 14 13 12 11	6% to 15% major productive habitat 10 9 8 7 (6)	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity 19	Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec ≥0.33 0.31 0.29 0.27 >0.25 20 (19) 18 17 16	Max. observed at typical transect: >0.1 to 0.25 m/sec 0.25 0.21 0.17 0.13 >0.1 15 14 13 12 11	Max. observed at typical transect: 0.05 to 0.1 m/sec 0.1 0.09 0.07 0.06 0.05 10 9 8 7 6	Max. observed at typical transect: <0.05 m/sec; or spate occurring: > 1 m/sec <0.05 0.04 0.03 0.01 <0.01 5 4 3 2 1
Habitat Smothering 14 Primary Score 45	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. 20 19 18 17 16	Adequate number of stable pools (1-2 per 12 times width) and >25% of habitats affected by sand, silt, or algae. 15 (14) 13 12 11	Does not have required number of stable pools (1-2 per 12 x width) and/or has shallow pools (<2 x prevailing depth). 10 9 8 7 6	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation. 5 4 3 2 1
Secondary Habitat Components **Artificial Channelization** 11	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. 20 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging or straightening in the past (>25 yrs) but mostly recovered. 15 14 13 12 (11)	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area. 10 9 8 7 6	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks. 5 4 3 2 1
Bank Stability Right Bank 2 Left Bank 2	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the woody root zone with few raw, eroded areas. 10 9	Only meets 2 of the 3 requirements for optimal bank stability. 8 7 6	Only meets 1 of the 3 requirements for optimal bank stability. 5 4	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the woody root zone with raw, eroded areas. 3 (2) 1
Riparian Buffer Zone Width Right Bank 9 Left Bank 6	Width of vegetation greater than 18 m 10 9	Width of vegetation >12 to 18m 8 7 6	Width of vegetation 6 to 12 m. human activities close to system 5 4	Less than 6 m of buffer zone due to intensive human activities 3 2 1
Riparian Zone Vegetation Quality Right Bank 9 Left Bank 7 Secondary Score 46	Over 80% of riparian surfaces consist of normal, expected plant community for given sunlight & habitat conditions (e.g., native plants; tree, shrub, and forbs represented, if appropriate). Minimal disturbance. 10 9	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed. 8 7 6	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious. 5 4	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). 3 2 1

91 **TOTAL SCORE**

Date:	Analyst:	Signature:
10/28/2024	Jeremy Parrott	Jeremy Parrott

62-160.800, F.A.C. Revision Date: January 2017

DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



Location: Sweetwater Br 50 yd. upstream STP

Date: 10/28/2024

Sampler: JP

100 m: Latitude _____ Longitude _____

0 m: Latitude _____ Longitude _____

Substrates: Code key, draw proportionate habitat abundance.

		%
U	Snags	<1
XX	Roots/undercut banks	<1
LP	Leaf Packs (or mats)	1-2
	Aquatic Macrophytes	
RB	Rock	5%
	Pools	total # observed = ____ # range expected = ____

Average width _____ m

Average depth _____ m

Velocity measured at _____ meter mark.

WQ & chemistry taken at _____ meter mark.

Habitat Smothering:
Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

Bank Stability:
Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:
Note areas (on map) where natural vegetation is altered or eliminated.

Plants observed / other notes:

0.075

0.4 depth

400

62-160.800, F.A.C

Revision Date: January 2017

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Sweetwater Br. Boyd Upstream STP | County: Alachua | Date: 6/28/2024 | Investigators: JP

STORET Station Number: 20020091

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1	N	N	
	2			
	3			
	4			
	5			96
	6			
	7			
	8			
	9			
10	1	N		
	2			
	3			
	4			
	5			84
	6			
	7			
	8			
	9			
20	1	N		
	2			
	3			
	4			
	5			92
	6			
	7			
	8			
	9			
30	1	N		
	2			
	3			
	4			
	5			76
	6			
	7			
	8			
	9			
40	1	N		
	2			
	3			
	4			
	5			84
	6			
	7			
	8			
	9			
50	1	N		
	2			
	3			
	4			
	5			84
	6			
	7			
	8			
	9			

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
60	1	N	N	
	2			
	3			
	4			
	5			84
	6			
	7			
	8			
	9			
70	1	N		
	2			
	3			
	4			
	5			76
	6			
	7			
	8			
	9			
80	1	N		
	2			
	3			
	4			
	5			92
	6			
	7			
	8			
	9			
90	1	N		
	2			
	3			
	4			
	5			88
	6			
	7			
	8			
	9			
100	1	N		
	2			
	3			
	4			
	5			92
	6			
	7			
	8			
	9			

Secchi depth	0.7
Estimated?	Yes

# points ranked 4-6	0
total points assessed	
% points ranked 4-6	

Check accompanying data collected at same site/date

Algal mat sample	
Linear Veg Survey	
Habitat Assessment	
SCI/Bioreconn	
Water sample	

RQ-

Algal Thickness Rank

N	rough, no algae, slimy, algae up to 1mm
3	>1mm - 6mm
4	>6mm - 20mm
5	>20mm - 10 cm
6	>10 cm

Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached.

Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank.

Record canopy cover as the number of small densiometer quadrants (out of 96) that HAVE canopy cover. Measure facing upstream at point 4, 5, or 6.

Collect algal mat sample following DEP SOP FS 7240 if the percentage of total sampled points with a thickness rank of 4, 5, or 6 is >20%.

62-160.800, F.A.C. Revision Date: January 2017

DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Waterbody: sweetwater upstream | Date: 10/24/24 | County: Alachua | Storet Number: 20020091

Analyst: TP | Signature:

Comments:

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m^2 of taxa present). Note in the boxes below if no dominant are selected, and note total macrophyte abundance rank for each section. Only the most common taxa are listed, so use blank spaces for additional taxa names.

HERBACEOUS SPECIES	Meter Mark 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Alternanthera philoxeroides											
Bacopa caroliniana											
Bacopa monnieri											
Bidens mitis											
Boehmeria cylindrica											
Centella asiatica											
Ceratophyllum demersum											
Chara											
Cicuta maculata											
Cladium jamaicense											
Colocasia esculenta											
Commelina diffusa											
Commelina virginica											
Crinum americanum											
Diodia virginiana											
Eichhornia crassipes											
Eleocharis (wisov viviparous)											
Hydrilla verticillata											
Hydrocotle											
Hygrophila polysperma											
Hymenocallis											
Lachnanthes caroliniana											
Landoltia punctata											
Lemna											
Limnophila sessiflora											
Ludwigia leptocarpa											
Ludwigia palustris											
Ludwigia peruviana											
Ludwigia repens											
Luziola fluitans											
If no Dominant or Co-Dominant were selected, indicate with "X"											
Indicate % cover macrophytes per section											
0-5% Macrophyte Coverage											
>5 and ≤10% Macrophyte Coverage											
>10 and ≤25% Macrophyte Coverage											
>25 and ≤50% Macrophyte Coverage											
> 50% Macrophyte Coverage											

HERBACEOUS SPECIES	Meter Mark 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Micranthemum glomeratum											
Micranthemum umbrosum											
Myriophyllum aquaticum											
Najas guadelupensis											
Nuphar luteum											
Orontium aquaticum											
Panicum hemitomon											
Panicum repens											
Panicum rigidulum											
Pistia stratioides											
Polygonum glabra											
Polygonum hydropiperoides											
Polygonum punctatum											
Pontederia cordata											
Potamogeton illinoensis											
Ruellia simplex											
Sacciolepis striata											
Sagittaria kurziana											
Sagittaria lancifolia											
Sagittaria latifolia											
Salvinia minima											
Samolus parviflora											
Saururus cernuus											
Sparganium americanum											
Typha											
Vallisneria americana											
Zizania aquatica											

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Appendix E. Chemical Analysis of Effluent and Receiving Water

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
10/28/2024 13:15	Control Site	AGP/LN	Algal Growth Potential	1.44 A	mg DryWt/L	0.300	0.900
10/28/2024 13:15	Control Site	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	0.93 U	µg/L	0.93	2.8
10/28/2024 13:15	Control Site	Chlorophyll/Grain Size/BOD	Phaeophytin-a	1.0 U	µg/L	1.0	3.0
10/28/2024 13:15	Control Site	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Uncorrected	0.75 I	µg/L	0.68	2.0
10/28/2024 13:15	Control Site	Overflow	Carbonaceous Biochemical Oxygen Demand	2.0 U	mg/L	2.0	2.0
10/28/2024 13:15	Control Site	Overflow	Escherichia Coli-Quanti-Tray	1940 J	MPN/100 mL	10.0	10.0
10/28/2024 13:15	Control Site	Metals	Cadmium	0.192	µg/L	0.020	0.080
10/28/2024 13:15	Control Site	Metals	Magnesium	15.5	mg/L	0.040	0.16
10/28/2024 13:15	Control Site	Metals	Iron	590	µg/L	30	120
10/28/2024 13:15	Control Site	Metals	Potassium	2.6	mg/L	0.30	1.2
10/28/2024 13:15	Control Site	Metals	Arsenic	1.15	µg/L	0.050	0.20
10/28/2024 13:15	Control Site	Metals	Lead	1.83	µg/L	0.20	0.40
10/28/2024 13:15	Control Site	Metals	Nickel	0.87 I	µg/L	0.50	2.0
10/28/2024 13:15	Control Site	Metals	Silver	0.010 U	µg/L	0.010	0.040
10/28/2024 13:15	Control Site	Metals	Aluminum	357	µg/L	5.0	20
10/28/2024 13:15	Control Site	Metals	Sodium	15.9	mg/L	0.50	2.0
10/28/2024 13:15	Control Site	Metals	Calcium	82.2	mg/L	0.075	0.30
10/28/2024 13:15	Control Site	Metals	Copper	5.01	µg/L	0.40	0.80
10/28/2024 13:15	Control Site	Metals	Selenium	0.22 I	µg/L	0.20	0.80
10/28/2024 13:15	Control Site	Metals	Chromium	1.5 I	µg/L	0.40	1.6
10/28/2024 13:15	Control Site	Metals	Zinc	14 I	µg/L	5.0	20
10/28/2024 13:15	Control Site	Nutrients	Organic Carbon	11	mg C/L	0.50	1.0
10/28/2024 13:15	Control Site	Nutrients	TSS	4 IA	mg/L	2.0	10
10/28/2024 13:15	Control Site	Nutrients	Turbidity	1.4	NTU	0.10	1.0
10/28/2024 13:15	Control Site	Nutrients	Total-P	0.23	mg P/L	0.010	0.050
10/28/2024 13:15	Control Site	Nutrients	Total Alkalinity	121	mg CaCO3/L	0.65	2.5
10/28/2024 13:15	Control Site	Nutrients	NO2NO3-N	0.31	mg N/L	0.0040	0.010
10/28/2024 13:15	Control Site	Nutrients	Color (true)	54	PCU	2.5	6.0
10/28/2024 13:15	Control Site	Nutrients	O-Phosphate-P	0.20	mg P/L	0.0080	0.020
10/28/2024 13:15	Control Site	Nutrients	Ammonia-N	0.019	mg N/L	0.0020	0.0050
10/28/2024 13:15	Control Site	Nutrients	Fluoride	0.38	mg F/L	0.025	0.10

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
10/28/2024 13:15	Control Site	Nutrients	Chloride	25	mg Cl/L	0.40	1.0
10/28/2024 13:15	Control Site	Nutrients	Kjeldahl Nitrogen	0.60	mg N/L	0.080	0.20
10/28/2024 13:15	Control Site	Nutrients	Sulfate	140	mg SO4/L	0.40	1.0
10/28/2024 13:15	Control Site	Overflow	Mercury	1.3	ng/L	0.20	0.50
10/28/2024 13:15	Control Site	Overflow	Cyanide	0.0060 U	mg/L	0.0060	0.020
10/28/2024 13:15	Control Site	Pesticides	Gamma-BHC	0.13 U	ng/L	0.13	0.64
10/28/2024 13:15	Control Site	Pesticides	Sucralose	0.53	µg/L	0.010	0.040
10/28/2024 13:15	Control Site	Priority Organic Pollutants	1,4-Dioxane	0.040 U	µg/L	0.040	0.16
10/28/2024 13:15	Control Site	Nutrients	Sample Depth	0.3	m		
10/28/2024 13:15	Control Site	Nutrients	Temperature	22.5	C		
10/28/2024 13:15	Control Site	Nutrients	Specific Conductance	571	µmhos/cm		
10/28/2024 13:15	Control Site	Nutrients	pH	7.67			
10/28/2024 13:15	Control Site	Nutrients	Dissolved Oxygen %Sat	98.1	%Sat		
10/28/2024 10:40	Test Site	AGP/LN	Algal Growth Potential	6.36	mg DryWt/L	0.300	0.900
10/28/2024 10:40	Test Site	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Uncorrected	0.68 U	µg/L	0.68	2.0
10/28/2024 10:40	Test Site	Chlorophyll/Grain Size/BOD	Phaeophytin-a	1.0 U	µg/L	1.0	3.0
10/28/2024 10:40	Test Site	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	0.93 U	µg/L	0.93	2.8
10/28/2024 10:40	Test Site	Overflow	Carbonaceous Biochemical Oxygen Demand	2.0 U	mg/L	2.0	2.0
10/28/2024 10:40	Test Site	Overflow	Escherichia Coli-Quanti-Tray	160	MPN/100 mL	10.0	10.0
10/28/2024 10:40	Test Site	Metals	Aluminum	53	µg/L	5.0	20
10/28/2024 10:40	Test Site	Metals	Silver	0.010 U	µg/L	0.010	0.040
10/28/2024 10:40	Test Site	Metals	Nickel	0.61 I	µg/L	0.50	2.0
10/28/2024 10:40	Test Site	Metals	Lead	0.20 U	µg/L	0.20	0.40
10/28/2024 10:40	Test Site	Metals	Potassium	7.5	mg/L	0.30	1.2
10/28/2024 10:40	Test Site	Metals	Magnesium	18.1	mg/L	0.040	0.16
10/28/2024 10:40	Test Site	Metals	Iron	66 I	µg/L	30	120
10/28/2024 10:40	Test Site	Metals	Copper	1.03	µg/L	0.40	0.80
10/28/2024 10:40	Test Site	Metals	Sodium	42.5	mg/L	0.50	2.0
10/28/2024 10:40	Test Site	Metals	Selenium	0.20 U	µg/L	0.20	0.80
10/28/2024 10:40	Test Site	Metals	Chromium	0.42 I	µg/L	0.40	1.6
10/28/2024 10:40	Test Site	Metals	Arsenic	0.42	µg/L	0.050	0.20
10/28/2024 10:40	Test Site	Metals	Calcium	47.9	mg/L	0.075	0.30
10/28/2024 10:40	Test Site	Metals	Cadmium	0.020 U	µg/L	0.020	0.080
10/28/2024 10:40	Test Site	Metals	Zinc	16 I	µg/L	5.0	20

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
10/28/2024 10:40	Test Site	Nutrients	Sulfate	150	mg SO4/L	0.40	1.0
10/28/2024 10:40	Test Site	Nutrients	Chloride	66	mg Cl/L	0.40	1.0
10/28/2024 10:40	Test Site	Nutrients	O-Phosphate-P	0.20	mg P/L	0.0080	0.020
10/28/2024 10:40	Test Site	Nutrients	Turbidity	0.95 I	NTU	0.10	1.0
10/28/2024 10:40	Test Site	Nutrients	Kjeldahl Nitrogen	0.78	mg N/L	0.080	0.20
10/28/2024 10:40	Test Site	Nutrients	TSS	4 I	mg/L	2.0	10
10/28/2024 10:40	Test Site	Nutrients	Organic Carbon	6.9	mg C/L	0.50	1.0
10/28/2024 10:40	Test Site	Nutrients	Ammonia-N	0.030	mg N/L	0.0020	0.0050
10/28/2024 10:40	Test Site	Nutrients	NO2NO3-N	1.7	mg N/L	0.040	0.10
10/28/2024 10:40	Test Site	Nutrients	Total-P	0.30	mg P/L	0.010	0.050
10/28/2024 10:40	Test Site	Nutrients	Total Alkalinity	59	mg CaCO3/L	0.65	2.5
10/28/2024 10:40	Test Site	Nutrients	Fluoride	0.24	mg F/L	0.025	0.10
10/28/2024 10:40	Test Site	Nutrients	Color (true)	13 A	PCU	2.5	6.0
10/28/2024 10:40	Test Site	Overflow	Cyanide	0.0060 U	mg/L	0.0060	0.020
10/28/2024 10:40	Test Site	Overflow	Mercury	0.87	ng/L	0.20	0.50
10/28/2024 10:40	Test Site	Pesticides	Gamma-BHC	0.14 U	ng/L	0.14	0.69
10/28/2024 10:40	Test Site	Pesticides	Sucralose	57	µg/L	0.10	0.40
10/28/2024 10:40	Test Site	Priority Organic Pollutants	1,4-Dioxane	0.040 U	µg/L	0.040	0.16
10/28/2024 10:40	Test Site	Nutrients	pH	7.21			
10/28/2024 10:40	Test Site	Nutrients	Dissolved Oxygen %Sat	97.3	%Sat		
10/28/2024 10:40	Test Site	Nutrients	Temperature	24.1	C		
10/28/2024 10:40	Test Site	Nutrients	Specific Conductance	626	µmhos/cm		
10/28/2024 10:40	Test Site	Nutrients	Sample Depth	0.1	m		
10/28/2024 11:20	EFF Grab	AGP/LN	Algal Growth Potential	4.06	mg DryWt/L	0.300	0.900
10/28/2024 11:20	EFF Grab	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Uncorrected	0.68 U	µg/L	0.68	2.0
10/28/2024 11:20	EFF Grab	Chlorophyll/Grain Size/BOD	Phaeophytin-a	1.0 U	µg/L	1.0	3.0
10/28/2024 11:20	EFF Grab	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	0.93 U	µg/L	0.93	2.8
10/28/2024 11:20	EFF Grab	Overflow	Enterococci-Quanti-Tray	10.0 U	MPN/100 mL	10.0	10.0
10/28/2024 11:20	EFF Grab	Overflow	Carbonaceous Biochemical Oxygen Demand	2.0 U	mg/L	2.0	2.0
10/28/2024 11:20	EFF Grab	Overflow	Fecal Coliform-Quanti-Tray	10.0 U	MPN/100 mL	10.0	10.0
10/28/2024 11:20	EFF Grab	Metals	Magnesium	19.1	mg/L	0.040	0.16
10/28/2024 11:20	EFF Grab	Metals	Copper	2.02	µg/L	0.40	0.80
10/28/2024 11:20	EFF Grab	Metals	Potassium	8.8	mg/L	0.30	1.2
10/28/2024 11:20	EFF Grab	Metals	Aluminum	52	µg/L	5.0	20

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
10/28/2024 11:20	EFF Grab	Metals	Zinc	21	µg/L	5.0	20
10/28/2024 11:20	EFF Grab	Metals	Sodium	49.9	mg/L	0.50	2.0
10/28/2024 11:20	EFF Grab	Metals	Chromium	0.40 U	µg/L	0.40	1.6
10/28/2024 11:20	EFF Grab	Metals	Lead	0.20 U	µg/L	0.20	0.40
10/28/2024 11:20	EFF Grab	Metals	Silver	0.010 U	µg/L	0.010	0.040
10/28/2024 11:20	EFF Grab	Metals	Arsenic	0.28	µg/L	0.050	0.20
10/28/2024 11:20	EFF Grab	Metals	Selenium	0.20 U	µg/L	0.20	0.80
10/28/2024 11:20	EFF Grab	Metals	Calcium	42.1	mg/L	0.075	0.30
10/28/2024 11:20	EFF Grab	Metals	Cadmium	0.020 U	µg/L	0.020	0.080
10/28/2024 11:20	EFF Grab	Metals	Iron	41 I	µg/L	30	120
10/28/2024 11:20	EFF Grab	Metals	Nickel	0.61 I	µg/L	0.50	2.0
10/28/2024 11:20	EFF Grab	Nutrients	Total-P	0.27	mg P/L	0.010	0.050
10/28/2024 11:20	EFF Grab	Nutrients	Ammonia-N	0.032	mg N/L	0.0020	0.0050
10/28/2024 11:20	EFF Grab	Nutrients	Turbidity	0.70 I	NTU	0.10	1.0
10/28/2024 11:20	EFF Grab	Nutrients	O-Phosphate-P	0.20 J	mg P/L	0.016	0.040
10/28/2024 11:20	EFF Grab	Nutrients	Chloride	74	mg Cl/L	1.0	2.5
10/28/2024 11:20	EFF Grab	Nutrients	Color (true)	4.4 I	PCU	2.5	6.0
10/28/2024 11:20	EFF Grab	Nutrients	Total Alkalinity	44 A	mg CaCO3/L	0.65	2.5
10/28/2024 11:20	EFF Grab	Nutrients	Organic Carbon	5.9	mg C/L	0.50	1.0
10/28/2024 11:20	EFF Grab	Nutrients	Fluoride	0.21	mg F/L	0.025	0.10
10/28/2024 11:20	EFF Grab	Nutrients	Sulfate	150	mg SO4/L	1.0	2.5
10/28/2024 11:20	EFF Grab	Nutrients	Kjeldahl Nitrogen	0.67	mg N/L	0.080	0.20
10/28/2024 11:20	EFF Grab	Nutrients	TSS	2 I	mg/L	2.0	10
10/28/2024 11:20	EFF Grab	Nutrients	NO2NO3-N	1.6	mg N/L	0.040	0.10
10/28/2024 11:20	EFF Grab	Overflow	Mercury	0.67	ng/L	0.20	0.50
10/28/2024 11:20	EFF Grab	Overflow	Cyanide	0.0060 UJ	mg/L	0.0060	0.020
10/28/2024 11:20	EFF Grab	Pesticides	Bromacil	0.62 U	ng/L	0.62	3.1
10/28/2024 11:20	EFF Grab	Pesticides	Fipronil Desulfinyl	0.10 U	ng/L	0.10	0.52
10/28/2024 11:20	EFF Grab	Pesticides	Loratadine	4.9	ng/L	0.31	1.6
10/28/2024 11:20	EFF Grab	Pesticides	Terbuthylazine	0.21 U	ng/L	0.21	1.0
10/28/2024 11:20	EFF Grab	Pesticides	Atrazine	1.4	ng/L	0.21	1.0
10/28/2024 11:20	EFF Grab	Pesticides	Chlorpyrifos Methyl	0.10 U	ng/L	0.10	0.52
10/28/2024 11:20	EFF Grab	Pesticides	EPTC	0.52 U	ng/L	0.52	2.6
10/28/2024 11:20	EFF Grab	Pesticides	Naled	2.6 U	ng/L	2.6	13

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
10/28/2024 11:20	EFF Grab	Pesticides	Parathion Ethyl	0.16 U	ng/L	0.16	0.78
10/28/2024 11:20	EFF Grab	Pesticides	Prometryn	0.36 U	ng/L	0.36	1.8
10/28/2024 11:20	EFF Grab	Pesticides	Simazine	0.26 U	ng/L	0.26	1.3
10/28/2024 11:20	EFF Grab	Pesticides	Carfentrazone Ethyl	0.16 U	ng/L	0.16	0.78
10/28/2024 11:20	EFF Grab	Pesticides	Chlorpyrifos Ethyl	0.31 U	ng/L	0.31	1.6
10/28/2024 11:20	EFF Grab	Pesticides	Cyprodinil	0.21 U	ng/L	0.21	1.0
10/28/2024 11:20	EFF Grab	Pesticides	Diazinon	0.13 U	ng/L	0.13	0.65
10/28/2024 11:20	EFF Grab	Pesticides	Dimethenamid	0.10 U	ng/L	0.10	0.52
10/28/2024 11:20	EFF Grab	Pesticides	Ethoprop	0.13 U	ng/L	0.13	0.65
10/28/2024 11:20	EFF Grab	Pesticides	Etridiazole	0.10 U	ng/L	0.10	0.52
10/28/2024 11:20	EFF Grab	Pesticides	Fonofos	0.16 U	ng/L	0.16	0.78
10/28/2024 11:20	EFF Grab	Pesticides	Molinate	0.26 UJ	ng/L	0.26	1.3
10/28/2024 11:20	EFF Grab	Pesticides	Propargite	0.83 U	ng/L	0.83	4.1
10/28/2024 11:20	EFF Grab	Pesticides	Butylate	0.47 U	ng/L	0.47	2.3
10/28/2024 11:20	EFF Grab	Pesticides	Chlorfenapyr	0.31 U	ng/L	0.31	1.6
10/28/2024 11:20	EFF Grab	Pesticides	Coumaphos	1.1 U	ng/L	1.1	5.7
10/28/2024 11:20	EFF Grab	Pesticides	Difenoconazole	0.62 U	ng/L	0.62	3.1
10/28/2024 11:20	EFF Grab	Pesticides	Fenbuconazole	0.52 U	ng/L	0.52	2.6
10/28/2024 11:20	EFF Grab	Pesticides	Fipronil Sulfide	0.43 I	ng/L	0.10	0.52
10/28/2024 11:20	EFF Grab	Pesticides	Fluxapyroxad	0.26 U	ng/L	0.26	1.3
10/28/2024 11:20	EFF Grab	Pesticides	Hexazinone	0.52 U	ng/L	0.52	2.6
10/28/2024 11:20	EFF Grab	Pesticides	Mevinphos	1.0 U	ng/L	1.0	5.2
10/28/2024 11:20	EFF Grab	Pesticides	Napropamide	0.72 U	ng/L	0.72	3.6
10/28/2024 11:20	EFF Grab	Pesticides	Pyraflufen Ethyl	0.31 U	ng/L	0.31	1.6
10/28/2024 11:20	EFF Grab	Pesticides	Pyridaben	1.4 U	ng/L	1.4	7.2
10/28/2024 11:20	EFF Grab	Pesticides	Pyriproxyfen	0.26 U	ng/L	0.26	1.7
10/28/2024 11:20	EFF Grab	Pesticides	Tebuconazole	7.2 I	ng/L	1.4	7.2
10/28/2024 11:20	EFF Grab	Pesticides	Ibuprofen	0.080 U	µg/L	0.080	0.32
10/28/2024 11:20	EFF Grab	Pesticides	Naproxen	0.0080 U	µg/L	0.0080	0.032
10/28/2024 11:20	EFF Grab	Pesticides	Caffeine	7.8 U	ng/L	7.8	39
10/28/2024 11:20	EFF Grab	Pesticides	Demeton	3.6 U	ng/L	3.6	18
10/28/2024 11:20	EFF Grab	Pesticides	Fenamiphos	0.47 U	ng/L	0.47	2.3
10/28/2024 11:20	EFF Grab	Pesticides	Fipronil	0.21 U	ng/L	0.21	1.0
10/28/2024 11:20	EFF Grab	Pesticides	Fludioxonil	0.96	ng/L	0.10	0.52

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
10/28/2024 11:20	EFF Grab	Pesticides	Flumioxazin	3.1 U	ng/L	3.1	16
10/28/2024 11:20	EFF Grab	Pesticides	Myclobutanil	0.36 U	ng/L	0.36	1.8
10/28/2024 11:20	EFF Grab	Pesticides	Oxyfluorfen	0.33 I	ng/L	0.21	1.0
10/28/2024 11:20	EFF Grab	Pesticides	Prometon	3.1 U	ng/L	3.1	16
10/28/2024 11:20	EFF Grab	Pesticides	Propiconazole	1.7 I	ng/L	0.62	3.1
10/28/2024 11:20	EFF Grab	Pesticides	Acetochlor	0.21 U	ng/L	0.21	1.0
10/28/2024 11:20	EFF Grab	Pesticides	Ametryn	1.1 U	ng/L	1.1	5.7
10/28/2024 11:20	EFF Grab	Pesticides	Atrazine Desethyl	1.3 U	ng/L	1.3	6.7
10/28/2024 11:20	EFF Grab	Pesticides	Cyanazine	5.2 U	ng/L	5.2	26
10/28/2024 11:20	EFF Grab	Pesticides	Dithiopyr	2.1 U	ng/L	2.1	10
10/28/2024 11:20	EFF Grab	Pesticides	Ethion	0.31 U	ng/L	0.31	1.6
10/28/2024 11:20	EFF Grab	Pesticides	Fipronil Sulfone	0.26 U	ng/L	0.26	1.3
10/28/2024 11:20	EFF Grab	Pesticides	Metolachlor	11	ng/L	0.78	3.9
10/28/2024 11:20	EFF Grab	Pesticides	Oxadiazon	0.36 U	ng/L	0.36	1.8
10/28/2024 11:20	EFF Grab	Pesticides	Parathion Methyl	0.21 U	ng/L	0.21	1.0
10/28/2024 11:20	EFF Grab	Pesticides	Pendimethalin	1.8 U	ng/L	1.8	8.8
10/28/2024 11:20	EFF Grab	Pesticides	Pronamide	0.10 U	ng/L	0.10	0.52
10/28/2024 11:20	EFF Grab	Pesticides	Propanil	0.10 U	ng/L	0.10	0.52
10/28/2024 11:20	EFF Grab	Pesticides	Stirophos	0.41 U	ng/L	0.41	3.3
10/28/2024 11:20	EFF Grab	Pesticides	Sulfentrazone	1.4 U	ng/L	1.4	7.2
10/28/2024 11:20	EFF Grab	Pesticides	Terbufos	0.21 U	ng/L	0.21	1.0
10/28/2024 11:20	EFF Grab	Pesticides	Thiobencarb	0.52 U	ng/L	0.52	2.6
10/28/2024 11:20	EFF Grab	Pesticides	Fluazifop-P-butyl	0.10 U	ng/L	0.10	0.52
10/28/2024 11:20	EFF Grab	Pesticides	Azoxystrobin	5.7	ng/L	0.41	2.1
10/28/2024 11:20	EFF Grab	Pesticides	Flutolanil	1.2	ng/L	0.10	0.52
10/28/2024 11:20	EFF Grab	Pesticides	Imazalil	0.67 U	ng/L	0.67	3.4
10/28/2024 11:20	EFF Grab	Pesticides	Metalaxyl	0.52 U	ng/L	0.52	2.6
10/28/2024 11:20	EFF Grab	Pesticides	Metribuzin	0.53 I	ng/L	0.41	2.1
10/28/2024 11:20	EFF Grab	Pesticides	Norflurazon	1.0 U	ng/L	1.0	5.2
10/28/2024 11:20	EFF Grab	Pesticides	Prodiamine	0.21 U	ng/L	0.21	1.0
10/28/2024 11:20	EFF Grab	Pesticides	Sucralose	69	µg/L	0.10	0.40
10/28/2024 11:20	EFF Grab	Pesticides	Alachlor	0.41 U	ng/L	0.41	2.1
10/28/2024 11:20	EFF Grab	Pesticides	Azinphos Methyl	3.1 U	ng/L	3.1	16
10/28/2024 11:20	EFF Grab	Pesticides	Carbophenothion	0.52 U	ng/L	0.52	2.6

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
10/28/2024 11:20	EFF Grab	Pesticides	Dimethomorph	0.67 U	ng/L	0.67	3.4
10/28/2024 11:20	EFF Grab	Pesticides	Disulfoton	0.62 U	ng/L	0.62	3.1
10/28/2024 11:20	EFF Grab	Pesticides	Iprodione	0.52 U	ng/L	0.52	2.6
10/28/2024 11:20	EFF Grab	Pesticides	Malathion	0.36 U	ng/L	0.36	1.8
10/28/2024 11:20	EFF Grab	Pesticides	Phenytoin	5.5 U	ng/L	5.5	27
10/28/2024 11:20	EFF Grab	Pesticides	Phorate	0.26 U	ng/L	0.26	1.3
10/28/2024 11:20	EFF Grab	Pesticides	Triadimefon	0.16 U	ng/L	0.16	0.78
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Acenaphthene	0.026 U	µg/L	0.026	0.10
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Di-n-butyl phthalate	2.1 U	µg/L	2.1	8.2
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Hexachlorocyclopentadiene	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	2,6-Dinitrotoluene	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Benzidine	10 U	µg/L	10	41
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Chrysene	0.026 U	µg/L	0.026	0.10
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Fluoranthene	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Fluorene	0.026 U	µg/L	0.026	0.10
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Naphthalene	0.10 U	µg/L	0.10	0.41
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Benzo(a)pyrene	0.026 U	µg/L	0.026	0.10
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Benzo(k)fluoranthene	0.026 U	µg/L	0.026	0.10
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.026 U	µg/L	0.026	0.10
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Phenol	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	2-Nitrophenol	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	3,3'-Dichlorobenzidine	10 UJ	µg/L	10	41
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Anthracene	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Benzo(a)anthracene	0.026 U	µg/L	0.026	0.10
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.026 U	µg/L	0.026	0.10
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Nitrobenzene	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Phenanthrene	0.10 U	µg/L	0.10	0.41
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Pyrene	0.10 U	µg/L	0.10	0.41
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	2,4-Dichlorophenol	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	4-Nitrophenol	10 U	µg/L	10	41
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Diethyl phthalate	2.1 U	µg/L	2.1	8.2
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Hexachlorobutadiene	0.051 U	µg/L	0.051	0.21

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Hexachloroethane	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Pentachlorophenol	0.51 U	µg/L	0.51	2.1
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Acenaphthylene	0.026 U	µg/L	0.026	0.10
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Di-n-octyl phthalate	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Dimethyl phthalate	0.21 U	µg/L	0.21	0.82
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	1,4-Dioxane	0.040 U	µg/L	0.040	0.16
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Hexachlorobenzene	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Isophorone	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.1 U	µg/L	3.1	12
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	2,4-Dinitrophenol	0.010 U	µg/L	0.010	0.041
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	2,4-Dinitrotoluene	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.026 U	µg/L	0.026	0.10
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	5.1 U	µg/L	5.1	21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	N-Nitrosodimethylamine	2.1 U	µg/L	2.1	8.2
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	2-Chloronaphthalene	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	2-Chlorophenol	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	2,4-Dimethylphenol	0.051 UJ	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Benzo(b)fluoranthene	0.026 U	µg/L	0.026	0.10
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.051 U	µg/L	0.051	0.21
10/28/2024 11:20	EFF Grab	Priority Organic Pollutants	Butyl benzyl phthalate	1.0 U	µg/L	1.0	4.1
10/28/2024 11:20	EFF Grab	Nutrients	pH	6.75			
10/28/2024 11:20	EFF Grab	Nutrients	Specific Conductance	600	µmhos/cm		
10/28/2024 11:20	EFF Grab	Nutrients	Dissolved Oxygen %Sat	102.9	%Sat		
10/28/2024 11:20	EFF Grab	Nutrients	Temperature	24.7	C		
10/28/2024 10:30	EFF Comp	Overflow	Carbonaceous Biochemical Oxygen Demand	2.5	mg/L	2.0	2.0
10/28/2024 10:30	EFF Comp	Toxicology	Bioassay-Chron-Def-FW-C.dubia, NOEC	100 J	NOEC		
10/28/2024 10:30	EFF Comp	Toxicology	Bioassay-Chron-Def-FW-C.dubia, IC25	100 LJ	IC25		
10/28/2024 10:30	EFF Comp	Toxicology	Bioassay-Chron-Def-FW-Fish, NOEC	12.5	NOEC		

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
10/28/2024 10:30	EFF Comp	Toxicology	Bioassay-Chron-Def-FW-Fish, IC25	100 L	IC25		
10/28/2024 10:30	EFF Comp	Metals	Magnesium	18.7	mg/L	0.040	0.16
10/28/2024 10:30	EFF Comp	Metals	Silver	0.010 U	µg/L	0.010	0.040
10/28/2024 10:30	EFF Comp	Metals	Zinc	27	µg/L	5.0	20
10/28/2024 10:30	EFF Comp	Metals	Cadmium	0.020 U	µg/L	0.020	0.080
10/28/2024 10:30	EFF Comp	Metals	Calcium	40.7	mg/L	0.075	0.30
10/28/2024 10:30	EFF Comp	Nutrients	Total-P	0.43	mg P/L	0.010	0.050
10/28/2024 10:30	EFF Comp	Nutrients	NO2NO3-N	3.8	mg N/L	0.040	0.10
10/28/2024 10:30	EFF Comp	Nutrients	Ammonia-N	0.032	mg N/L	0.0020	0.0050
10/28/2024 10:30	EFF Comp	Nutrients	Kjeldahl Nitrogen	0.70	mg N/L	0.080	0.20
10/28/2024 10:30	EFF Comp	Nutrients	TSS	2 I	mg/L	2.0	10
10/28/2024 10:30	EFF Comp	Pesticides	Gamma-BHC	0.13 U	ng/L	0.13	0.64
10/28/2024 11:45	Field Blank	Metals	Magnesium	0.040 U	mg/L	0.040	0.16
10/28/2024 11:45	Field Blank	Metals	Silver	0.010 U	µg/L	0.010	0.040
10/28/2024 11:45	Field Blank	Metals	Selenium	0.20 U	µg/L	0.20	0.80
10/28/2024 11:45	Field Blank	Metals	Copper	0.40 U	µg/L	0.40	0.80
10/28/2024 11:45	Field Blank	Metals	Potassium	0.30 U	mg/L	0.30	1.2
10/28/2024 11:45	Field Blank	Metals	Lead	0.20 U	µg/L	0.20	0.40
10/28/2024 11:45	Field Blank	Metals	Chromium	0.40 U	µg/L	0.40	1.6
10/28/2024 11:45	Field Blank	Metals	Arsenic	0.050 U	µg/L	0.050	0.20
10/28/2024 11:45	Field Blank	Metals	Aluminum	5.0 U	µg/L	5.0	20
10/28/2024 11:45	Field Blank	Metals	Zinc	5.0 U	µg/L	5.0	20
10/28/2024 11:45	Field Blank	Metals	Iron	30 U	µg/L	30	120
10/28/2024 11:45	Field Blank	Metals	Calcium	0.075 U	mg/L	0.075	0.30
10/28/2024 11:45	Field Blank	Metals	Cadmium	0.020 U	µg/L	0.020	0.080
10/28/2024 11:45	Field Blank	Metals	Nickel	0.50 U	µg/L	0.50	2.0
10/28/2024 11:45	Field Blank	Metals	Sodium	0.50 U	mg/L	0.50	2.0
10/28/2024 11:45	Field Blank	Nutrients	Turbidity	0.10 U	NTU	0.10	1.0
10/28/2024 11:45	Field Blank	Nutrients	Total-P	0.002 U	mg P/L	0.0020	0.0050
10/28/2024 11:45	Field Blank	Nutrients	Total Alkalinity	0.65 U	mg CaCO3/L	0.65	2.5
10/28/2024 11:45	Field Blank	Nutrients	Kjeldahl Nitrogen	0.080 U	mg N/L	0.080	0.20
10/28/2024 11:45	Field Blank	Nutrients	Color (true)	2.5 U	PCU	2.5	6.0
10/28/2024 11:45	Field Blank	Nutrients	Chloride	0.20 U	mg Cl/L	0.20	0.50
10/28/2024 11:45	Field Blank	Nutrients	Organic Carbon	0.50 U	mg C/L	0.50	1.0

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
10/28/2024 11:45	Field Blank	Nutrients	Sulfate	0.20 U	mg SO4/L	0.20	0.50
10/28/2024 11:45	Field Blank	Nutrients	Ammonia-N	0.002 U	mg N/L	0.0020	0.0050
10/28/2024 11:45	Field Blank	Nutrients	O-Phosphate-P	0.004 U	mg P/L	0.0040	0.010
10/28/2024 11:45	Field Blank	Nutrients	NO2NO3-N	0.004 U	mg N/L	0.0040	0.010
10/28/2024 11:45	Field Blank	Nutrients	Fluoride	0.025 U	mg F/L	0.025	0.10
10/28/2024 11:45	Field Blank	Overflow	Cyanide	0.0060 UJ	mg/L	0.0060	0.020
10/28/2024 11:45	Field Blank	Overflow	Mercury	0.20 U	ng/L	0.20	0.50
10/28/2024 11:45	Field Blank	Pesticides	Azoxystrobin	0.43 U	ng/L	0.43	2.1
10/28/2024 11:45	Field Blank	Pesticides	Butylate	0.48 U	ng/L	0.48	2.4
10/28/2024 11:45	Field Blank	Pesticides	Simazine	0.27 U	ng/L	0.27	1.3
10/28/2024 11:45	Field Blank	Pesticides	Carfentrazone Ethyl	0.16 U	ng/L	0.16	0.80
10/28/2024 11:45	Field Blank	Pesticides	Cyanazine	5.3 U	ng/L	5.3	27
10/28/2024 11:45	Field Blank	Pesticides	EPTC	0.53 U	ng/L	0.53	2.7
10/28/2024 11:45	Field Blank	Pesticides	Fipronil	0.21 U	ng/L	0.21	1.1
10/28/2024 11:45	Field Blank	Pesticides	Fluazifop-P-butyl	0.11 U	ng/L	0.11	0.53
10/28/2024 11:45	Field Blank	Pesticides	Flumioxazin	3.2 U	ng/L	3.2	16
10/28/2024 11:45	Field Blank	Pesticides	Flutolanil	0.11 U	ng/L	0.11	0.53
10/28/2024 11:45	Field Blank	Pesticides	Prometon	3.2 U	ng/L	3.2	16
10/28/2024 11:45	Field Blank	Pesticides	Pronamide	0.11 U	ng/L	0.11	0.53
10/28/2024 11:45	Field Blank	Pesticides	Bromacil	0.64 U	ng/L	0.64	3.2
10/28/2024 11:45	Field Blank	Pesticides	Sulfentrazone	1.5 U	ng/L	1.5	7.5
10/28/2024 11:45	Field Blank	Pesticides	Terbuthylazine	0.21 U	ng/L	0.21	1.1
10/28/2024 11:45	Field Blank	Pesticides	Triadimefon	0.16 U	ng/L	0.16	0.80
10/28/2024 11:45	Field Blank	Pesticides	Demeton	3.7 U	ng/L	3.7	19
10/28/2024 11:45	Field Blank	Pesticides	Fludioxonil	0.11 U	ng/L	0.11	0.53
10/28/2024 11:45	Field Blank	Pesticides	Metribuzin	0.43 U	ng/L	0.43	2.1
10/28/2024 11:45	Field Blank	Pesticides	Molinate	0.27 UJ	ng/L	0.27	1.3
10/28/2024 11:45	Field Blank	Pesticides	Myclobutanil	0.37 U	ng/L	0.37	1.9
10/28/2024 11:45	Field Blank	Pesticides	Norflurazon	1.1 U	ng/L	1.1	5.3
10/28/2024 11:45	Field Blank	Pesticides	Oxyfluorfen	0.21 U	ng/L	0.21	1.1
10/28/2024 11:45	Field Blank	Pesticides	Parathion Ethyl	0.16 U	ng/L	0.16	0.80
10/28/2024 11:45	Field Blank	Pesticides	Prometryn	0.37 U	ng/L	0.37	1.9
10/28/2024 11:45	Field Blank	Pesticides	Azinphos Methyl	3.2 U	ng/L	3.2	16
10/28/2024 11:45	Field Blank	Pesticides	Tebuconazole	1.5 U	ng/L	1.5	7.5

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
10/28/2024 11:45	Field Blank	Pesticides	Pyriproxyfen	0.27 U	ng/L	0.27	1.7
10/28/2024 11:45	Field Blank	Pesticides	Fluxapyroxad	0.27 U	ng/L	0.27	1.3
10/28/2024 11:45	Field Blank	Pesticides	Metalaxyl	0.53 U	ng/L	0.53	2.7
10/28/2024 11:45	Field Blank	Pesticides	Metolachlor	0.80 U	ng/L	0.80	4.0
10/28/2024 11:45	Field Blank	Pesticides	Parathion Methyl	0.21 U	ng/L	0.21	1.1
10/28/2024 11:45	Field Blank	Pesticides	Acetochlor	0.21 U	ng/L	0.21	1.1
10/28/2024 11:45	Field Blank	Pesticides	Carbophenothion	0.53 U	ng/L	0.53	2.7
10/28/2024 11:45	Field Blank	Pesticides	Coumaphos	1.1 U	ng/L	1.1	5.9
10/28/2024 11:45	Field Blank	Pesticides	Difenoconazole	0.64 U	ng/L	0.64	3.2
10/28/2024 11:45	Field Blank	Pesticides	Dimethenamid	0.11 U	ng/L	0.11	0.53
10/28/2024 11:45	Field Blank	Pesticides	Dithiopyr	2.1 U	ng/L	2.1	11
10/28/2024 11:45	Field Blank	Pesticides	Fenbuconazole	0.53 U	ng/L	0.53	2.7
10/28/2024 11:45	Field Blank	Pesticides	Fipronil Sulfide	0.11 U	ng/L	0.11	0.53
10/28/2024 11:45	Field Blank	Pesticides	Fipronil Sulfone	0.27 U	ng/L	0.27	1.3
10/28/2024 11:45	Field Blank	Pesticides	Hexazinone	0.53 U	ng/L	0.53	2.7
10/28/2024 11:45	Field Blank	Pesticides	Phenytoin	5.7 U	ng/L	5.7	28
10/28/2024 11:45	Field Blank	Pesticides	Phorate	0.27 U	ng/L	0.27	1.3
10/28/2024 11:45	Field Blank	Pesticides	Ibuprofen	0.080 U	µg/L	0.080	0.32
10/28/2024 11:45	Field Blank	Pesticides	Sucralose	0.022 I	µg/L	0.010	0.040
10/28/2024 11:45	Field Blank	Pesticides	Ametryn	1.2 U	ng/L	1.2	5.9
10/28/2024 11:45	Field Blank	Pesticides	Atrazine	0.21 U	ng/L	0.21	1.1
10/28/2024 11:45	Field Blank	Pesticides	Pyraflufen Ethyl	0.32 U	ng/L	0.32	1.6
10/28/2024 11:45	Field Blank	Pesticides	Chlorpyrifos Ethyl	0.32 U	ng/L	0.32	1.6
10/28/2024 11:45	Field Blank	Pesticides	Diazinon	0.13 U	ng/L	0.13	0.67
10/28/2024 11:45	Field Blank	Pesticides	Imazalil	0.69 U	ng/L	0.69	3.5
10/28/2024 11:45	Field Blank	Pesticides	Iprodione	0.53 U	ng/L	0.53	2.7
10/28/2024 11:45	Field Blank	Pesticides	Malathion	0.37 U	ng/L	0.37	1.9
10/28/2024 11:45	Field Blank	Pesticides	Napropamide	0.75 U	ng/L	0.75	3.7
10/28/2024 11:45	Field Blank	Pesticides	Pendimethalin	1.8 U	ng/L	1.8	9.1
10/28/2024 11:45	Field Blank	Pesticides	Alachlor	0.43 U	ng/L	0.43	2.1
10/28/2024 11:45	Field Blank	Pesticides	Stirophos	0.43 U	ng/L	0.43	3.4
10/28/2024 11:45	Field Blank	Pesticides	Disulfoton	0.64 U	ng/L	0.64	3.2
10/28/2024 11:45	Field Blank	Pesticides	Loratadine	0.32 U	ng/L	0.32	1.6
10/28/2024 11:45	Field Blank	Pesticides	Atrazine Desethyl	1.4 U	ng/L	1.4	6.9

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
10/28/2024 11:45	Field Blank	Pesticides	Terbufos	0.21 U	ng/L	0.21	1.1
10/28/2024 11:45	Field Blank	Pesticides	Thiobencarb	0.53 U	ng/L	0.53	2.7
10/28/2024 11:45	Field Blank	Pesticides	Pyridaben	1.5 U	ng/L	1.5	7.5
10/28/2024 11:45	Field Blank	Pesticides	Chlorpyrifos Methyl	0.11 U	ng/L	0.11	0.53
10/28/2024 11:45	Field Blank	Pesticides	Cyprodinil	0.21 U	ng/L	0.21	1.1
10/28/2024 11:45	Field Blank	Pesticides	Etridiazole	0.11 U	ng/L	0.11	0.53
10/28/2024 11:45	Field Blank	Pesticides	Fipronil Desulfinyl	0.11 U	ng/L	0.11	0.53
10/28/2024 11:45	Field Blank	Pesticides	Fonofos	0.16 U	ng/L	0.16	0.80
10/28/2024 11:45	Field Blank	Pesticides	Mevinphos	1.1 U	ng/L	1.1	5.3
10/28/2024 11:45	Field Blank	Pesticides	Propanil	0.11 U	ng/L	0.11	0.53
10/28/2024 11:45	Field Blank	Pesticides	Propargite	0.85 U	ng/L	0.85	4.3
10/28/2024 11:45	Field Blank	Pesticides	Naproxen	0.0080 U	µg/L	0.0080	0.032
10/28/2024 11:45	Field Blank	Pesticides	Caffeine	8.0 U	ng/L	8.0	40
10/28/2024 11:45	Field Blank	Pesticides	Chlorfenapyr	0.32 U	ng/L	0.32	1.6
10/28/2024 11:45	Field Blank	Pesticides	Dimethomorph	0.69 U	ng/L	0.69	3.5
10/28/2024 11:45	Field Blank	Pesticides	Ethion	0.32 U	ng/L	0.32	1.6
10/28/2024 11:45	Field Blank	Pesticides	Ethoprop	0.13 U	ng/L	0.13	0.67
10/28/2024 11:45	Field Blank	Pesticides	Fenamiphos	0.48 U	ng/L	0.48	2.4
10/28/2024 11:45	Field Blank	Pesticides	Naled	2.7 U	ng/L	2.7	13
10/28/2024 11:45	Field Blank	Pesticides	Oxadiazon	0.37 U	ng/L	0.37	1.9
10/28/2024 11:45	Field Blank	Pesticides	Prodiamine	0.21 U	ng/L	0.21	1.1
10/28/2024 11:45	Field Blank	Pesticides	Propiconazole	0.64 U	ng/L	0.64	3.2
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	2,6-Dinitrotoluene	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.026 U	µg/L	0.026	0.10
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Hexachlorobutadiene	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Naphthalene	0.10 U	µg/L	0.10	0.41
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	4-Nitrophenol	10 U	µg/L	10	41
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Pyrene	0.10 U	µg/L	0.10	0.41
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Isophorone	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	2,4-Dinitrotoluene	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Chrysene	0.026 U	µg/L	0.026	0.10
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Butyl benzyl phthalate	1.0 U	µg/L	1.0	4.1
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	2,4-Dinitrophenol	0.010 U	µg/L	0.010	0.041

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	3,3'-Dichlorobenzidine	10 U	µg/L	10	41
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	N-Nitrosodimethylamine	2.1 U	µg/L	2.1	8.3
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Pentachlorophenol	0.52 U	µg/L	0.52	2.1
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Benzidine	10 U	µg/L	10	41
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Benzo(b)fluoranthene	0.026 U	µg/L	0.026	0.10
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	5.2 U	µg/L	5.2	21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Hexachlorocyclopentadiene	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Benzo(a)anthracene	0.026 U	µg/L	0.026	0.10
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Benzo(a)pyrene	0.026 U	µg/L	0.026	0.10
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Fluorene	0.026 U	µg/L	0.026	0.10
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Hexachloroethane	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	2,4-Dichlorophenol	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Anthracene	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Benzo(k)fluoranthene	0.026 U	µg/L	0.026	0.10
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Di-n-butyl phthalate	2.1 U	µg/L	2.1	8.3
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Dimethyl phthalate	0.21 U	µg/L	0.21	0.83
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Fluoranthene	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Hexachlorobenzene	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.1 U	µg/L	3.1	12
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	2-Nitrophenol	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Acenaphthene	0.026 U	µg/L	0.026	0.10
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Acenaphthylene	0.026 U	µg/L	0.026	0.10
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.026 U	µg/L	0.026	0.10
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Di-n-octyl phthalate	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Diethyl phthalate	2.1 U	µg/L	2.1	8.3
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	1,4-Dioxane	0.040 U	µg/L	0.040	0.16
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	2-Chloronaphthalene	0.052 U	µg/L	0.052	0.21

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	2-Chlorophenol	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	2,4-Dimethylphenol	0.052 UJ	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.026 U	µg/L	0.026	0.10
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Nitrobenzene	0.052 U	µg/L	0.052	0.21
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Phenanthrene	0.10 U	µg/L	0.10	0.41
10/28/2024 11:45	Field Blank	Priority Organic Pollutants	Phenol	0.052 U	µg/L	0.052	0.21