Biological Assessment of City of Chattahoochee WWTP, Gadsden County NPDES # FL0027669 Sampled February 24 and 26, 2025

Division of Environmental Assessment and Restoration
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Contents

Summary of Results 3
Facility Overview 3
Methods 3
Results 6
Literature Cited 10
Appendix A. Explanations of Measurements 20
Appendix B. Chain of Custody 25
Appendix C. Physical/Chemical and Habitat Assessment Field Sheets 30
Appendix D. Chemical Analysis of Effluent and Receiving Water 38

List of Tables

Table 1. Measured field parameters 11
Table 2. Analytical water chemistry, microbiological, and toxicological data 12
Table 3. Analytical metals data 14
Table 4. Algal Growth Potential (AGP) 15
Table 5 Detected Organic Constituents 16
Table 6 Macroinvertebrate dipnet samples – qualitative 17
Table 7 Macroinvertebrate Hester-Dendy samples – quantitative 19

List of Figures

Figure 1. Map of Facility and Sampling Locations 5

Summary of Results

Effluent fecal coliform levels exceeded the effluent permit limit. *Escherichia coli* levels measured in the effluent exceeded and the Control Site sample slightly exceeded Class III Water Quality Criterion for Fresh Waters (Paragraph 62-302.530(6)(b), F.A.C.). The effluent composite sample for total phosphorus was Y qualified for improper preservation. The higher Algal Growth Potential (AGP) result in the effluent sample compared to the Test and Control Site samples, indicates a potential for nutrient enrichment of the receiving water due to the effluent. There were 11 organic constituents detected in the effluent grab sample. The Test Site scored higher than the Control Site on the Stream Condition Index (SCI), likely due to a slightly greater number of sensitive taxa and slightly more balanced community composition in the sample. Diversity scores calculated for the settling communities were similar for both sites. The SCI and diversity scores suggest a healthy macroinvertebrate community in Mosquito Creek. Any adverse effects on the macroinvertebrate community were more likely due to lack of habitat diversity, availability and smothering.

Facility Overview

The City of Chattahoochee WWTP Facility is a domestic wastewater treatment facility. The permit can be found in the DEP OCULUS, Document Management System. To access the permit directly, use this link and click the "Public OCULUS Login" button in the center of the webpage. (https://depedms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=38.432289.1]&[profile=Permitting_Authorization). The facility has Administrative Order AO-100NW to provide the facility time to comply with new dissolved oxygen and numeric nutrient limitations in the permit.

The effluent is intermittently discharged into Mosquito Creek, a Class III Fresh Water [waterbody identification (WBID) 376A] (Figure 1). Mosquito Creek falls within the Panhandle West Nutrient Watershed Region for Numeric Nutrient Criteria (NNC). For this region, the NNC, expressed as annual geometric means, are 0.06 mg/L total phosphorus and 0.67 mg/L total nitrogen (Paragraph 62-302.531(2)(c), F.A.C.). Mosquito Creek falls within the Panhandle bioregion. For Class III predominantly freshwaters, the daily average dissolved oxygen (DO) saturation shall not be below 67 percent in more than 10 percent of the values (Paragraph 62-302.533(1)(a), F.A.C.). This fifth-year inspection (FYI) event only provides single sample results. It should be noted that waterbody impairment assessments are based on longer-term data, and individual exceedances of a criterion do not indicate use impairment. http://ca.dep.state.fl.us/mapdirect/?focus=nutrientcriteria

Methods

Effluent samples were collected as an 8-hour time-proportioned composite sample on February 24, 2025, and a grab sample on February 26, 2025, from monitoring site location EFF-02 for outfall D-001. The permit specifies 8-hr flow-proportioned samples for carbonaceous

biochemical oxygen demand (CBOD), total suspended solids, total nitrogen, total phosphorus, and total Kjeldahl nitrogen. The permit specifies 24-hr flow-proportioned composite samples for chronic whole effluent toxicity testing however, 8-hr time-proportioned composite samples were collected due to intermittent flow. Total residual chlorine was not measured as the samplers did not have access to a chlorine meter to conduct the measurements.

Chemical and biological comparisons were made between a Control Site (located in Mosquito Creek beginning 140 m upstream of the point of discharge and ending 240 m upstream of the point of discharge) and a Test Site (located in Mosquito Creek beginning 115 m downstream of the point of confluence and ending 15 m downstream of the point of confluence) (Figure 1). Hester-Dendy (HD) samplers were deployed on January 27, 2025. The floating HD samplers were anchored on the riverbed with cinder blocks. Each sampler was equipped with four condos for colonization. After 28 days, the HDs were retrieved on February 24, 2025.

Samples were collected by Cameron Arthur, Cara Weaver, and Lora James (DEP Northwest District), Jennifer Walters, Robin Alexander, Ayman Halawa, and Kyle Long (Division of Water Resource Management), Ashley O'Neal, Amelia Rankin, Todd Risk, and Joshua Farre (DEP Division of Environmental Assessment and Restoration). Analyses were performed by Eurofins Environmental Testing Southeast in Orlando 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.

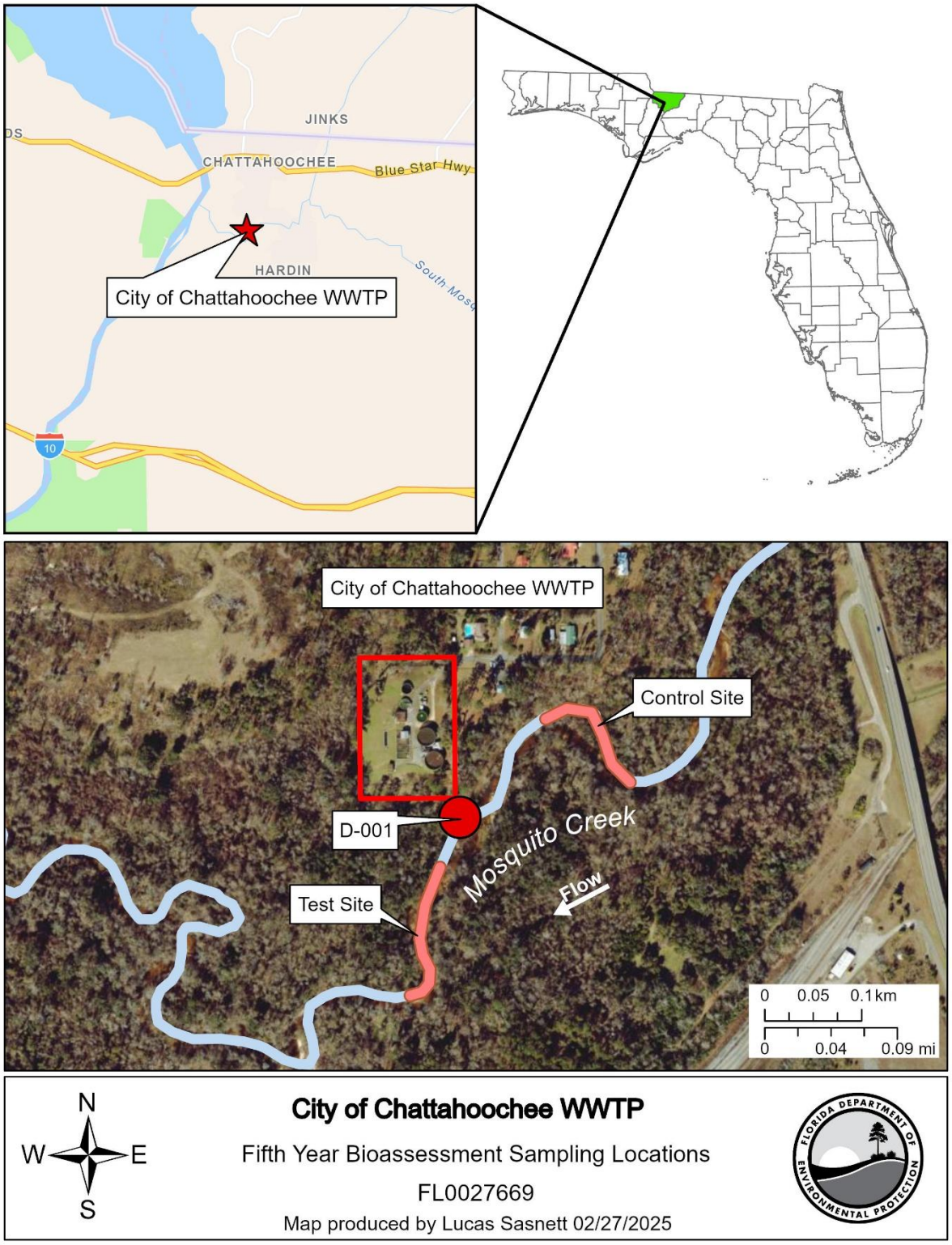


Figure 1. Map of Facility and Sampling Locations

Results

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

- Habitat Assessment scores were similar in Mosquito Creek at the Test Site (111) and Control Site (113), which placed both sites in the suboptimal category. While the Control Site had slightly better substrate diversity, both sites had similar substrate availability and habitat smothering. Deep shifting sand and more silt smothering was noted at the Test Site. Both sites had optimal water flow and sinuosity. Both sites lost points for poor stability on both banks. Both the Test Site and Control Site had equally wide riparian buffer zones on the right bank however, the Test Site lost points for a narrower riparian buffer zone on the left bank. The riparian vegetation quality was slightly disturbed at both sites.

- All effluent water quality parameters measured at EFF-02 complied with Class III Water Quality Criteria for Fresh Waters and effluent permit limits.

- 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 Appendix A and D)

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

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

- The effluent composite sample for total phosphorus was accidently preserved with nitric acid. Result was Y qualified.

- For comparative purposes only, total phosphorus in the effluent composite, effluent grab, Test and Control Site samples and total nitrogen in the effluent grab, Test and Control Site samples were greater than the annual geometric mean limits for the Panhandle West Nutrient Watershed Region.

Microbiology (See Table 2 and Appendix A and D)

- Effluent fecal coliform levels exceeded the effluent permit limit.

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

Toxicity Whole Effluent Test (See Table 2 and Appendix A and D)

- Tests were performed February 25 through March 4, 2025.

- The sample was aerated for 10 minutes at a rate of approximately 100 bubbles per minute to decrease the dissolved oxygen (DO) from 10.45 mg/L to 8.34 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.

- For the chronic definitive bioassay, the calculated IC25 for the water flea, *Ceriodaphnia dubia*, and the fish, *Pimephales promelas*, were 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 Appendix D)

- Effluent metals complied with Class III Water Quality Criteria for Fresh Waters. There are no effluent permit limits for metals.

- 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 Appendix A and D)

- 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 AGP value was highest in the effluent grab sample and similar among the Test and Control Site samples.

- The effluent grab sample AGP result of 32.4 mg dry wt/L is suggested to be representative of high productivity for freshwater. Test and Control Site AGP results of 4.51 mg dry wt/L and 5.99 mg dry wt/L, respectively, are in the AGP range (0.81 to 6.00 mg dry wt/L) suggested to be representative of moderately high productivity for freshwater (Miller et al. 1978).

- The analytical chemistry suggests that the effluent grab sample is nitrogen-limited, whereas the Test and the Control Sites are nitrogen-phosphorus co-limited (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.

- In comparison to the lower AGP values of the Test and Control Site samples, the higher effluent AGP value indicates the effluent has the potential to enrich this portion of Mosquito Creek when the facility is discharging.

Organic Constituents (See Table 5 and Appendix D)

- Atrazine (herbicide), azoxystrobin (fungicide), Caffeine (stimulant), fipronil (insecticide), fipronil desulfinyl (insecticide), fipronil sulfide (insecticide), fipronil sulfone (insecticide), fludioxonil (fungicide), loratadine (pharmaceutical), tebuconazole (fungicide), and 2,4,6-Trichlorophenol (pesticide) were detected in the effluent grab sample.

- Fipronil and fipronil sulfone were J-qualified due to internal standard recovery exceeding control limits.

- There are no effluent permit limits for organic constituents.

Macroinvertebrates (See Tables 6 and 7 and Appendix A)

- Qualitative macroinvertebrate data were collected as dipnet samples from the Test and Control Sites. The Test Site SCI score was 79 and the Control Site was 57. Single event SCI scores equal to or greater than 35 represent a healthy, balanced macroinvertebrate community. The Test Site sample had slightly more clinger taxa, sensitive taxa, and a higher percentage of tanytarsini individuals, which tend to decline with human disturbance. There were more mayflies (Ephemeroptera) and stoneflies (Plecoptera), amphipods, beetles (Coleoptera), bivalves and snails in the Test Site sample. In contrast, the Control Site sample was dominated by dipterans (approximately 60%), which tend to be tolerant to human disturbance. The Control Site contained three times as many very tolerant individuals as the Test Site. Both sites had similar composition of caddisflies (Trichoptera), which are suspension feeders and filterers sensitive to human disturbance. Most functional feeding groups were represented and similar among sites, though the Test Site had a few more scrapers than the Control Site. Overall, there were no negative effects on macroinvertebrates at the Test Site that is attributable to the effluent. Any adverse effects on the macroinvertebrate community were more likely due to lack of habitat availability and habitat smothering.

- Quantitative macroinvertebrate data were collected from HD samplers at the Test and Control Sites. Shannon-Weaver diversity scores were similar at both the Test and Control Sites (4.78 and 4.44, respectively). For this particular sampling event, the calculated Test Site diversity is within 25% of the Control Site diversity (Paragraph 62-302.530(10)(a) F.A.C.). Dipterans, particularly *Cricotopus bicinctus* (Chironomidae), were the dominant group at both sites, comprising over 66% of the total assemblage. The Test Site exhibited higher overall taxonomic richness (67) than the Control Site (54), while the Control Site showed slightly greater richness in (EPT) taxa (17 versus 14). Functional feeding group

composition was broadly similar, though the Test Site showed marginally higher representation of scrapers and predators, potentially reflecting subtle differences in habitat structure or trophic dynamics.

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

Flora (See Appendices A and C)

- 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, both the Test and Control Site contained less than $2m^2$ of aquatic macrophytes.

- The RPS was not conducted at the Test and Control Sites due to the minimal presence of algae. The canopy cover was reported as lightly shaded for both sites.

Literature Cited

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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	EFF-02	Test Site	Control Site
Habitat Assessment	-	-	-	-	111	113
Sample Depth	m	-	-	-	0.1	0.1
Temperature	C	-	Report	4.3	11.9	11.7
pH	SU	6.0 - 8.5	6.0 - 8.5	7.1	7.4	7.4
Specific Conductance	µmhos/cm	≤ 1,275	-	-	90.0	90.1
Dissolved Oxygen	% saturation	≥ 67	≤ 90[1]	76.1	98.5 c	97.1 c
Dissolved Oxygen	mg/L	-	-	-	10.6	10.5
Flow	gal/day	-	330,000	322,000	-	-

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

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	-	-	-	1.3	0.020	0.020
Total Phosphorus	mg P/L	≤ 0.06 g	Report p[2]	1.4 Y[4]	1.6	0.045	0.046
Total Ammonia Nitrogen	mg N/L	≤ 10 sc (Effluent) ≤ 6.4 sc (Test) ≤ 6.5 sc (Control)	-	-	0.76	0.009	0.009
Un-ionized Ammonia (calculated salinity)	mg/L	-	≤ 0.02	-	-	< 0.02 c	< 0.02 c
Nitrate and Nitrite	mg N/L	-	-	-	6.7	0.62	0.62
Total Kjeldahl Nitrogen	mg N/L	-	Report p[2]	-	1.5	0.18 I	0.21
Total Nitrogen	mg N/L	≤ 0.67 g	Report p[2]	-	8.2 c	0.8 c	0.83 c
Total Organic Carbon	mg C/L	-	-	-	3.8	4.6	4.6
Chlorophyll *a* - Corrected	µg/L	-	-	-	1.0 I	2.0 I	1.9 U
Phaeophytin	µg/L	-	-	-	1.0 U	2.0 U	2.0 U
CBOD, 5 day, N - inhibited	mg/L	-	≤ 20.0 p[2]	2.0 U[4]	-	2.0 U	2.0 U
Total Suspended Solids	mg/L	-	≤ 30 p[2]	4 I[4]	-	6 I	6 I
Turbidity	NTU	≤ 29 t	-	-	1.9	7.6	7.7
Color (true)	PCU	-	-	-	10	46	47
Alkalinity	mg CaCO3/L	≥ 20	-	-	121 A	33	32
Chloride	mg Cl/L	-	-	-	25 A	5.8	5.8
Fluoride	mg F/L	≤ 10.0	-	-	0.15	0.058 I	0.057 I
Sulfate	mg SO4/L	-	-	-	16 A	1.6	1.5
Fecal Coliforms	cfu/100 mL	-	≤ 800 s	-	6,100 Be	250	160 B
Escherichia coli	MPN/100 mL	≤ 410	-	-	2,419.6 J	187.2	410.6 e
Bioassay - Water flea *(C. dubia)*	% effluent	-	≥ 100 p[3]	> 100[4]	-	-	-
Bioassay - Fish *(P. promelas)*	% effluent	-	≥ 100 p[3]	> 100[4]	-	-	-

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
c - Value is calculated.
e - Value exceeds the Class III Water Quality Criteria or permit limits
g - Value expressed as an annual geometric mean.
p^2 – 8-hour flow-proportioned composite.
p^3 - 24-hour flow-proportioned composite.
s - Single sample
t - Shall not exceed 29 NTUs above background.
B - Results based on colony counts outside the acceptance range.
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J - Estimated value and/or the analysis did not meet established quality control criteria.
U - Material analyzed for but not detected; value reported is the method detection limit.
Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
4 - 8-hour time proportioned composite sample

Table 3. Analytical metals data

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

Analyte	Units	Effluent Class III Criteria	Effluent Permit Limits	Effluent Grab	Test Site Class III Criteria	Test Site	Control Site Class III Criteria	Control Site
Hardness	mg CaCO3/L	-	-	161 c	-	38.5 c	-	39.1 c
Aluminum	µg/L	-	-	20	-	422	-	411
Arsenic	µg/L	≤ 50	-	0.74	≤ 50	0.38	≤ 50	0.38
Cadmium	µg/L	≤ 0.385 b	-	0.020 U	≤ 0.134 b	0.020 U	≤ 0.135 b	0.020 U
Calcium	mg/L	-	-	42.1	-	9.23	-	9.24
Chromium, Total [5]	µg/L	≤ 127 b	-	0.40 U	≤ 39.5 b	0.66 I	≤ 39.9 b	0.65 I
Copper	µg/L	≤ 14 b	-	2.07	≤ 4.13 b	0.77 I	≤ 4.18 b	0.76 I
Iron	µg/L	≤ 1,000	-	62.9 I	≤ 1,000	560	≤ 1,000	580
Lead	µg/L	≤ 5.82 b	-	0.20 U	≤ 0.945 b	0.29 I	≤ 0.961 b	0.29 I
Magnesium	mg/L	-	-	13.5	-	3.76	-	3.88
Nickel	µg/L	≤ 77.9 b	-	0.52 I	≤ 23.3 b	0.50 U	≤ 23.5 b	0.50 U
Potassium	mg/L	-	-	5.3	-	0.82 I	-	0.83 I
Selenium	µg/L	≤ 5.0	-	0.20 U	≤ 5.0	0.20 U	≤ 5.0	0.20 U
Silver	µg/L	≤ 0.07	-	0.010 U	≤ 0.07	0.010 U	≤ 0.07	0.010 U
Sodium	mg/L	-	-	20.7	-	3.0	-	3.0
Zinc	µg/L	≤ 179 b	-	26	≤ 53.4 b	5.0 U	≤ 54 b	5.0 U

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
b - Value is calculated based on hardness.
c - Value is calculated.
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.
5 - 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*	32.4 A	280 ± 57	560 ± 110	310 ± 62	690 ± 140	5.7	5.1
Test Site	*Pseudokirchneriella subcapitata*	4.51	24 ± 4.8	8.6 ± 1.7	30 ± 6.1	19 ± 3.9	32	18
Control Site	*Pseudokirchneriella subcapitata*	5.99	24 ± 4.8	8.6 ± 1.7	32 ± 6.3	20 ± 4.0	32	18

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

Table 5 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	-	-	0.87 I
Azoxystrobin	ng/L	-	-	0.98 I
Caffeine	ng/L	-	-	900
Fipronil	ng/L	-	-	2.9 J
Fipronil Desulfinyl	ng/L	-	-	0.26 I
Fipronil Sulfide	ng/L	-	-	1.3
Fipronil Sulfone	ng/L	-	-	1.4 J
Fludioxonil	ng/L	-	-	0.32 I
Loratadine	ng/L	-	-	0.49 I
Tebuconazole	ng/L	-	-	3.2 I
2,4,6-Trichlorophenol	µg/L	$\leq 6.5^{6}$	-	0.083 I

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J - Estimated value and/or the analysis did not meet established quality control criteria.
6 - Annual average.

Table 6 Macroinvertebrate dipnet samples – qualitative

Chattahoochee WWTP	**Test Site**		**Control Site**	
Stream Condition Index 2012				
Replicate	Rep 1	Rep 2	Rep 1	Rep 2
Stream Condition Index Metrics				
Number of Total Taxa	45	49	39	37
Number of Ephemeroptera Taxa	5	5	4	2
Number of Trichoptera Taxa	5	7	4	5
Number of Clinger Taxa	11	12	9	9
Number of Long-lived Taxa	1	3	1	1
Number of Sensitive Taxa	12	16	9	6
Percent of Dominant Taxon	8.3	9.6	11.9	11.0
Percent Suspension Feeders and Filterers	30.8	22.4	23.4	33.9
Percent of Tanytarsini Individuals	18.6	14.7	7.5	12.3
Percent of Very Tolerant Individuals	5.8	5.1	16.3	18.7
Total Number of Individuals	156	156	160	155
Community Composition: Percent of total				
Dominant Taxon Name	*Tanytarsus buckleyi* (Diptera)	*Hydroptila* sp. (Trichoptera)	*Polypedilum scalaenum* grp. (Diptera)	*Hydroptila* sp. (Trichoptera)
Acariformes	2.6	2.6	5.0	5.2
Amphipoda	3.2	0.6	0.0	0.0
Bivalvia	5.1	2.6	2.5	2.6
Coleoptera	9.6	12.8	5.6	5.2
Decapoda	0.0	0.6	0.0	0.0
Diptera	43.0	37.8	63.1	57.4
Ephemeroptera	14.1	18.0	5.6	2.6
Gastropoda	2.6	1.3	0.6	0.7

Chattahoochee WWTP	**Test Site**		**Control Site**	
Isopoda	0.0	0.6	0.0	0.0
Oligochaeta	1.3	1.9	0.6	0.0
Plecoptera	1.9	1.3	0.0	0.7
Trichoptera	16.7	19.9	16.9	25.8
Functional Feeding Groups: Percent of total				
Browser-Grazers	0.0	0.3	0.0	0.0
Burrowing Deposit Feeders	1.3	1.9	0.6	0.0
Piercers	3.2	9.6	9.4	11.0
Predators	10.6	9.0	12.5	11.3
Scavengers	0.0	0.6	0.0	0.0
Scrapers	9.3	11.2	3.4	3.2
Shredders	10.3	9.6	15.6	12.3
Surface Deposit Feeders	34.6	35.3	35.0	28.4
Suspension Feeders	30.8	22.4	23.4	33.9

* 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 7 Macroinvertebrate Hester-Dendy samples – quantitative

City of Chattahoochee WWTF	Test Site	Control Site
Summary Statistics		
Shannon-Weaver Diversity	4.78	4.44
Number of Taxa	67	54
Number of EPT Taxa	14	17
Percent Dominant Taxon	12.3	14.02
Dominant Taxon Name	*Cricotopus bicinctus* (Diptera)	*Cricotopus bicinctus* (Diptera)
Total Number of Individuals (counted)	1,049	1,234
Total Number of Individuals (#/m^2)	2,779	2,451
Community Composition: Percent of total		
Acariformes	0.9	0.8
Coleoptera	3.1	2.8
Diptera	67.2	66.6
Ephemeroptera	12.4	11.5
Gastropoda	0.3	0.1
Odonata	0.1	0.0
Oligochaeta	0.0	0.0
Plecoptera	1.1	1.5
Trichoptera	15.1	16.8
Functional Feeding Groups: Percent of total		
Piercers	5.9	7.2
Predators	8.3	6.4
Scrapers	3.4	3.2
Shredders	13.7	16.0
Surface Deposit Feeders	38.1	35.2
Suspension Feeders	30.6	31.9

Appendix A. 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.

- **Chlorophyll *a* Content**

  Chlorophyll *a* Content: Chlorophyll *a* content is an estimate of algal biomass. High algal biomass implies nutrient stress (Stevenson and Bahls 1999) and may be constitute exceedances of 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..

- **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. The results for fecal coliform by membrane filtration method are often are based on colony counts outside the acceptable range (B-qualifier). The dilutions performed on the sample did not yield results within the method acceptable range of 20- 60 colony forming units per plate. The B-qualifier does not affect data quality.

- **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.

- **Algal Growth Potential (AGP)**

Algal growth potential (AGP) is a measure of nutrients available for algal growth (Miller et al. 1978; USEPA 1974). The AGP value is the peak growth of the alga within that 14-day period, recorded as mg dry weight/L. AGP. The protocol for marine waters (USEPA 1974) refers to the original 1971 Bottle Test procedure (USEPA 1971) for analysis interpretation. The 1971 Bottle Test was updated in 1978 (Miller et al. 1978). 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). AGP values above 10.0 mg dry weight/L represent a "problem" threshold for marine receiving waters, implying nutrient enrichment (Raschke and Schultz 1987, personal communication). 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 and N:P ratio is calculated using ½ the method detection limit (MDL) for the non-detect value.

- **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).

- **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.

- **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.

- **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.

- **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 and/or the analysis did not meet established quality control criteria.
  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 B. Chain of Custody

Request Number: RQ-2025-02-10-41

FYI5 Chattahoochee, City of - WWTP (FL0027669) DW

Customer: NW-DIST

Project ID: FYI5

Florida Department of Environmental Protection

Central Laboratory Submittal Form

Page 1 of 5

last revised Jan 25, 2018

Requester: Benjamin Nomann

Field Report Prepared By: R. Alexander, A. Holaway, L. James, J. Walters

Collected By: C. Arthur, J. Walters, C. Weaver, K. Long

Sampling Agency: FDEP

Location: EFF-001 Chattahoochee			☒ Comp ☐ Grab	Collection (comp begin or grab) Date: 08/24/25 Time: 10:39	Eastern Central	Composite end Date: 08/24/25 Time: 10:39					Bottle Group(s) (See pg 2): 13
Field ID: FL0027669			Matrix (type, e.g., Salt, Fresh, etc): Fresh			Diss. Oxygen: 76.1	☐ mg/L ☒ % sat	Total Res. Chlorine (mg/L):			
WIN/STORET #			Temp (C): 4.3	pH: 7.06		Sample Depth: N/A	☐ ft ☐ m	Sp. Conductance (umho/cm):			
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt):	Comments: Samples collected by Facility Sampler			H2S04 LOT# SA4180310 EXP: 07/10/2025			
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:						
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
J Walters	08/24/25 12:44	Hand delivery	1	BD	02/24/2025 12:48

Request Number: RQ-2025-02-10-41

FYI5 Chattahoochee, City of - WWTP (FL0027669) DW

Customer: NW-DIST

Project ID: FYI5

Florida Department of Environmental Protection
Central Laboratory Submittal Form

last revised Jan 25, 2018

Requester: Benjamin Nomann

Collected By: Amalia Rankin, Todd Risk

Field Report Prepared By: Ashley O'Neal

Sampling Agency: FDEP

Location: Chattahoochee FYI 5 TEST	☐ Comp ☑ Grab	Collection (comp begin or grab) Date 2/24/25 Time 11:00AM Eastern Central				Composite end Date	Time	Bottle Group(s) (See pg 2): C, D
Field ID	Matrix (type, e.g., Salt, Fresh, etc): fresh surface water		Diss. Oxygen: 10.64 ☒ mg/L ☐ % sat		Total Res. Chlorine (mg/L)			
WIN/STORET #	Temp (C): 11.9	pH: 7.42	Sample Depth: 0.1 ☐ ft ☒ m		Sp. Conductance (umho/cm): 90.0			
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments					
Location: Chattahoochee FYI 5 Control	☐ Comp ☑ Grab	Collection (comp begin or grab) Date 2/24/25 Time 11:10 Eastern Central				Composite end Date	Time	Bottle Group(s): C, D
Field ID	Matrix (type, e.g., Salt, Fresh, etc): fresh surface water		Diss. Oxygen: 10.54 ☒ mg/L ☐ % sat		Total Res. Chlorine (mg/L)			
WIN/STORET #	Temp (C): 11.7	pH: 7.39	Sample Depth: 0.1 ☐ ft ☒ m		Sp. Conductance (umho/cm): 90.1			
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
	2/24/25 1648	H-D	4	KR	2/24/25 · 1628

Request Number: RQ-2025-02-10-41

FYI5 Chattahoochee, City of - WWTP (FL0027669) DW

Customer: NW-DIST

Project ID: FYI5

Florida Department of Environmental Protection

Central Laboratory Submittal Form

Page 1 of 5

last revised Jan 25, 2018

Requester: Benjamin Nomann

Collected By: CW, RA, JW, KL

Field Report Prepared By: Cameron Arthur

Sampling Agency: FDEP

Location: Chattahoochee	☒ Comp ☐ Grab	Collection (comp begin or grab) Eastern Central Date: 3/25/25 Time: 9:10AM	Composite end Date: 03/26/25 Time: 7:55AM	Bottle Group(s) (See pg 2): B					
Field ID: FL0027669	Matrix (type, e.g., Salt, Fresh, etc): Fresh Effluent	Diss. Oxygen: N/A ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L): N/A						
WIN/STORET #	Temp (C):	pH: N/A	Sample Depth: N/A ☐ ft ☐ m	Sp. Conductance (umho/cm): N/A					
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt): N/A	Comments: Samples Collected by Facility Sampler						
Location: Chattahoochee	☐ Comp ☒ Grab	Collection (comp begin or grab) Eastern Central Date: 03/26/25 Time: 12:55 pm	Composite end Date: N/A Time:	Bottle Group(s): A					
Field ID: FL0027669	Matrix (type, e.g., Salt, Fresh, etc): Fresh Effluent	Diss. Oxygen: ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L):						
WIN/STORET #	Temp (C):	pH:	Sample Depth: 0.1 ☐ ft ☒ m	Sp. Conductance (umho/cm):					
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt): N/A	Comments: Same preservative lot # used on A and E						
Location: Chattahoochee	☐ Comp ☒ Grab	Collection (comp begin or grab) Eastern Central Date: 03/26/25 Time: 11:15	Composite end Date: N/A Time: —	Bottle Group(s): E					
Field ID: FL0027669	Matrix (type, e.g., Salt, Fresh, etc): DI Water	Diss. Oxygen: N/A ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L): N/A						
WIN/STORET #	Temp (C): N/A	pH: N/A	Sample Depth: N/A ☐ ft ☐ m	Sp. Conductance (umho/cm): N/A					
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt): N/A	Comments: Samples Collected Near EFF-02						
Location	☐ Comp ☐ Grab	Collection (comp begin or grab) Eastern Central Date: Time:	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
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Request Number: RQ-2025-02-10-41

FYI5 Chattahoochee, City of - WWTP (FL0027669) DW

Customer: NW-DIST

Project ID: FYI5

Florida Department of Environmental Protection

Central Laboratory Submittal Form

last revised Jan 25, 2018

Requester: Benjamin Nomann

Collected By: A. Halawa, R. Alexander

Field Report Prepared By: Cameron Arthur

Sampling Agency: FDEP

Location: Chattahoochee	☒ Comp ☐ Grab	Collection (comp begin or grab) Date 2/27/25 Time 10:00 AM	Eastern Central	Composite end Date 2/28/25 Time 10:00 AM						Bottle Group(s) (See pg 2): 5
Field ID: FL0027669	Matrix (type, e.g., Salt, Fresh, etc): Fresh Effluent			Diss. Oxygen: N/A ☐ mg/L ☐ % sat		Total Res. Chlorine (mg/L): N/A				
WIN/STORET #	Temp (C)	pH: N/A		Sample Depth: N/A ☐ ft ☐ m		Sp. Conductance (umho/cm): N/A				
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt): N/A	Comments: Samples collected using facility Sampler							
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
Ayman Halawa	2/28/25 11:47	Hand delivery	1	[illegible]	2.28.25/1149

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: 1/29/2025
Means of Contact: Email

Task Assignment Number: OV647 Maximum Cost: **$124.50** Turnaround Time: 5 BD

Sample Delivery Date: 2/25/2025

Project Name/Description:
RQ-2025-02-10-41; FYI5 Chattahoochee, City of - WWTP (FL0027669) 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	3	3		$39.00		$117.00
217/Sample Disposal Fee:	3				$2.50		$7.50
Total Number of Containers Shipped:	3					**Total:**	**$124.50**

670-57448-01 Chain of Custody

QC Instructions:

Comments: Quote #

Samples released to Contract Lab by: _____ Date/Time: _____

Delivery Method: _____ Shipping _____

Samples Accepted by: Edwin F Smith Date/Time 2/25/25 0930

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

2.9/2.7
3.0/2.8

Appendix C. Physical/Chemical and Habitat Assessment Field Sheets

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

MONITORING LOCATION: DESCRIPTION Chattahoochee WWTP SURVEY/PROJECT: FY1
MONITORING LOCATION: NAME Mosquito Creek test SAMPLING ENTITY FDEP BIO RQ 2026-02-10-41
MONITORING LOCATION: WIN ID CHATTAHOSTRM COUNTY Gadsden ORG CODE 21FLPNS
LATITUDE — LONGITUDE — DATE 2/24/25 TIME 11:00 AM (EAST/CENT)
WB collected @ 100 m DSM

WATER QUALITY

Sample Depth (m)	Temp. (C°)	pH (SU)	DO (mg/L)	DO (% SAT)	Sp. Cond. (umhos/cm)	Salinity (ppt)	Secchi Depth (m)	Total Depth (m)
Top 0.1	11.9	7.42	10.64	98.5	90.0			
Mid								.7
Bottom								
Data J Qualified?							VOB: Yes No	
Meter ID #: TLH ROC meter 153484							Photos Taken: Yes No	

OBSERVATIONS rained overnight ~0.4

Water Clarity: ☐ Clear ☑ Slightly Turbid ☐ Turbid ☐ Opaque
Water Color: ☑ Clear ☐ Green (Algae) ☐ Tannic
Water Odors: ☑ Normal ☐ Chemical ☐ Petroleum ☐ Sewage
Water Oils: ☑ Normal ☐ Glob ☐ Sheen ☐ Slick
Artificially Impounded: ☐ Yes ☑ No
Artificially Channelized: ☑ No ☐ Some recovery ☐ Mostly Recovered ☐ Recent/Severe

Sediment Odors: ☑ Normal ☐ Anaerobic ☐ Chemical ☐ Petroleum ☐ Sewage
Sediment Type: ☑ Organic Fibrous (peaty) ☐ Organic Smooth (muck) ☐ Sand/Silt ☑ Sandy ☐ Vegetated
Sediment Oils: ☑ Normal ☐ Glob ☐ Sheen ☐ Slick

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

Substrate Smothering:	None	Slight	Moderate	Severe
Sand:	☐	☐	☑	☐
Silt:	☐	☐	☑	☐
Algae:	☑	☐	☐	☐

Canopy Cover%: ☐ Open ☑ Lightly Shaded (11-45%) ☐ Moderately Shaded (46-80%) ☐ Heavily Shaded
Hydrologic Modification Score: ☑ 1-2 ☐ 3-4 ☐ 5-6 ☐ 7-8 ☐ 9-10

System Type: ☑ Stream ☐ Other ☐ Wetland ☐ Estuary
Matrix Collected: ☑ Fresh ☐ Marine
Water Level: ☐ Low ☑ Normal ☐ High

Typical Width(m) Depth(m)/Velocity(m/sec) Transect:
Width (m): | Left Velocity (m/s): | Center Velocity (m/s): .5 | Right Velocity (m/s):
Left Depth (m): | Center Depth (m): | Right Depth (m):

Local Watershed Erosion: ☐ None ☑ Slight ☐ Moderate ☐ Heavy
Local Watershed Pollution: ☐ None ☑ Slight ☐ Moderate ☐ Heavy

High Water Mark (m): 2m (above present water level) + .5 (present depth) = 2.5 (above bed)
Buffer Width (m): Left Bank: 60m Right Bank: 718

METHODS / EQUIPMENT USED

Assessment Conducted: ☑ SCI ☑ HA ☐ RPS ☑ LVS ☑ LVS<2m² ☐ BioRecon ☐ Other (Specify) ☐ None
☑ The RPS was not conducted due to the minimal presence of algae at the site as indicated above.
☑ Photo evidence is available to document this condition.

Collection Method: ☑ Wading ☐ Shore ☐ Boat (Gas motor) ☐ Other
Blank: ☐ Equipment ☐ Field ☑ None

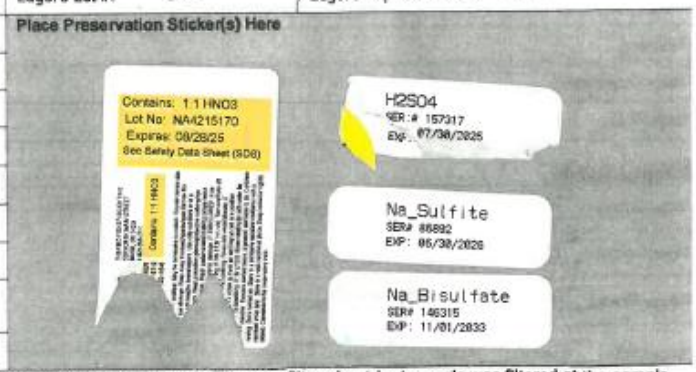
Sampling Equipment: ☐ Dipper ☐ Peristaltic pump ☐ Depth sampler ☑ None/Direct grab ☐ Other Intermediate Device (Specify)
Equipment ID (if applicable)

62-160.800, F.A.C. Page 1 of 2 Revision Date: May 2022

SITE _____ DATE _____

SAMPLES TAKEN

Parameter Suite	Preservation	Additional Preservation Information		pH Check
☑ Preserved nutrients	☑ Ice ☑ H2SO4	H2SO4 Lot #: Sticker	H2SO4 Expiration Date: Sticker	☑ <2
☑ Metals	☑ Ice ☑ HNO3	HNO3 Lot #: sticker	HNO3 Expiration Date: sticker	☑ <2
☑ Filtered Nutrients	☑ Ice ☑ 0.45 µm Filter	Syringe Lot #: 9120806	Filter Lot #: 43687	
☑ Macroinvertebrates	☑ Formalin	Formalin Lot #: 590225	Formalin Expiration Date: N/A	
☐ Phytoplankton	☐ Ice ☐ Lugol's	Lugol's Lot #: —	Lugol's Expiration Date: —	
☑ Chlorophyll	☑ Ice	Place Preservation Sticker(s) Here		
☑ Physical/Aggregate	☑ Ice			
☐ Periphyton	☐ Ice			
☑ Microbiology	☑ Ice			
☐ Molecular - qPCR	☐ Ice			
☐ Chemical WW Tracers	☐ Ice			
☐ Pesticides/Herbicides	☐ Ice			
☐ Algal Bloom ID: _____	☐ Ice			
☐ Other	_____			



The following apply unless otherwise noted: 1 mL of acid was used for acid preservations; the filtered nutrient sample was filtered at the sample collection time; and preservation was complete within 15 minutes of sample collection.

Notes & Observations (evidence of vegetation management):

W-14-DIOX (additional parameters) → preserved with Na_Sulfite & Na_Bisulfate. Stickers above, now
AA-ACSP
CBOD
W-E8321-DI
W-E8321-MS

Print Name:	Signature:	Date:
Ashley O'Neal	Ashley O'Neal	2/24/2025

Sampling Team Members	Meter Readings	Sample Collection	Documentation	Preservation	Preservation Check
1. AO Todd Risk Todd Risk		✓		✓	✓
2. AO Josh Favre Josh Favre				✓	✓
3. Ashley O'Neal			✓		
4. Amelia Rankin	✓				

For (FDEP) Office Use Only:

SBIO ID Numbers: SBIO Visit ID:_____ RPS-ID:_____ Macrophyte-ID:_____

LIMS ID: _____ WIN Import ID:_____

Data Entry and QA/QC:

Scan Field Sheets:_____ Field Parameters Entered into SBIO:_____ SBIO QA/QC:_____

LIMS QA/QC:_____ Migrate Data to WIN:_____

62-160.800, F.A.C. Page 2 of 2 Revision Date: May 202

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

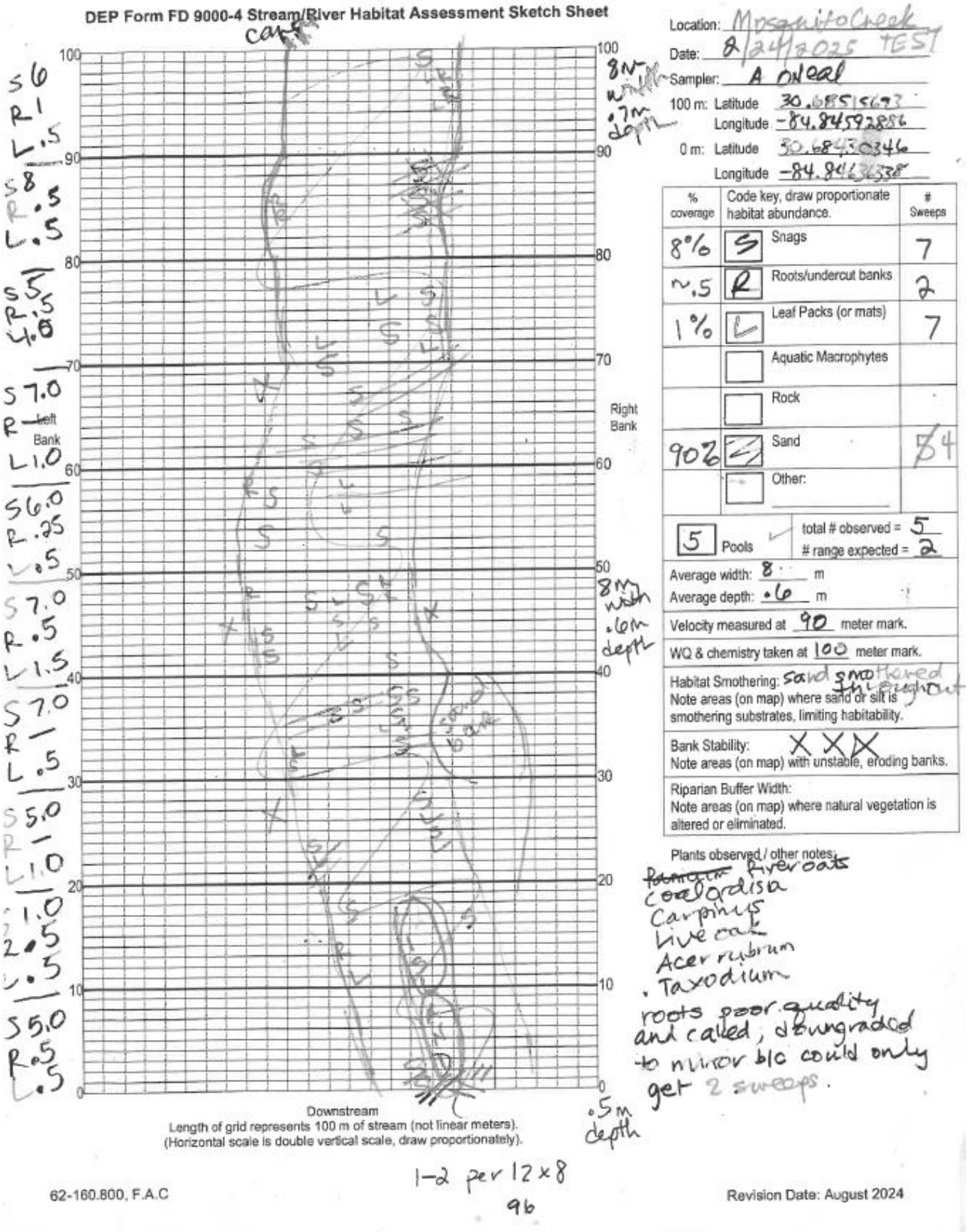
SAMPLING AGENCY: FDEP/Bio	~~STORET~~/WIN STATION NUMBER: CHATTAHOOCHEE STREAM	DATE (MM/DD/YY): 2/24/25	RECEIVING BODY OF WATER: Apalachicola River
REMARKS:	COUNTY: Gadsden	LOCATION: Mosquito Crk Test + Chattahoochee WWTP	FIELD ID/NAME: Test Site

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 10	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 reeds minor (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 9	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% 10 (9) 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity 20 2 sec .5	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 13 Primary Score 52	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. deep silty sands 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** 20	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 6 Left Bank 5	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 4	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 7 Left Bank 7 Secondary Score 59	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

111 **TOTAL SCORE**

Date: 2/24/2025	Analyst: A. O'Neal	Signature: Ashley O'Neal

62-160.800, F.A.C. (Effective Date)



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

Location: Mosquito Creek
Date: 8/24/2025 TEST
Sampler: A ONeal
100 m: Latitude 30.685156 93
Longitude -84.845928 56
0 m: Latitude 30.684303 46
Longitude -84.846363 38

% coverage	Code key, draw proportionate habitat abundance.	# Sweeps
8%	S Snags	7
~.5	R Roots/undercut banks	2
1%	L Leaf Packs (or mats)	7
	Aquatic Macrophytes	
	Rock	
90%	Sand	54
	Other:	

5 Pools — total # observed = 5; # range expected = 2

Average width: 8 m
Average depth: .6 m

Velocity measured at 90 meter mark.

WQ & chemistry taken at 100 meter mark.

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

Bank Stability: X X X
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:
~~Pomoea~~ River oats
coralgradisa
Carpinus
Live oak
Acer rubrum
Taxodium
roots poor quality and called, downgraded to minor b/c could only get 2 sweeps.

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

1-2 per 12x8
96

62-160.800, F.A.C

Revision Date: August 2024

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

MONITORING LOCATION: DESCRIPTION Chattahoochee WWTP FY15 SURVEY/PROJECT: FY15
MONITORING LOCATION: NAME Mosquito Crk FY1 Control SAMPLING ENTITY FDEP/Biology RQ 2/FLPNS
MONITORING LOCATION: WIN ID NOSTCRKCHATTA COUNTY Gadsden ORG CODE 2025-02-10-41
LATITUDE — LONGITUDE — DATE 2/24/25 TIME 11:10 (EAST/CENT)
No corrected e Coli req

WATER QUALITY

Sample Depth (m)	Temp. (C°)	pH (SU)	DO (mg/L)	DO (% SAT)	Sp. Cond. (umhos/cm)	Salinity (ppt)	Secchi Depth (m)	Total Depth (m)
Top 0.1	16.7	7.39	10.54	97.1	90.1			.5
Mid								
Bottom								
Data J Qualified?							VOB: (Yes) No	
Meter ID #:	TLH RDC meter 153484						Photos Taken: (Yes) No	

OBSERVATIONS rained overnight .4in

Water Clarity: ☐ Clear ☑ Slightly Turbid ☐ Turbid ☐ Opaque
Water Color: ☑ Clear ☐ Green (Algae) ☐ Tannic
Water Odors: ☑ Normal ☐ Chemical ☐ Petroleum ☐ Sewage
Water Oils: ☑ Normal ☐ Glob ☐ Sheen ☐ Slick
Artificially Impounded: ☐ Yes ☑ No
Artificially Channelized: ☑ No ☐ Some recovery ☐ Mostly Recovered ☐ Recent/Severe
Canopy Cover%: ☐ Open ☑ Lightly Shaded (11-45%) ☐ Moderately Shaded (46-80%) ☐ Heavily Shaded
Hydrologic Modification Score: ☑ 1-2 ☐ 3-4 ☐ 5-6 ☐ 7-8 ☐ 9-10

Sediment Odors: ☑ Normal ☐ Anaerobic ☐ Chemical ☐ Petroleum ☐ Sewage
Sediment Type: ☐ Organic Fibrous (peaty) ☐ Organic Smooth (muck) ☑ Sand/Silt ☑ Sandy ☐ Vegetated
Sediment Oils: ☑ Normal ☐ Glob ☐ Sheen ☐ Slick

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

Substrate Smothering:	None	Slight	Moderate	Severe
Sand:	☐	☐	☑	☐
Silt:	☐	☑	☐	☐
Algae:	☑	☐	☐	☐

System: ☑ Stream ☐ Other
Type: ☐ Wetland ☐ Estuary
Matrix Collected: ☑ Fresh ☐ Marine
Water Level: ☐ Low ☑ Normal ☐ High

Typical Width(m) Depth(m)/Velocity(m/sec) Transect:
Width (m): — Left Velocity (m/s): — Center Velocity (m/s): 0.4 — Right Velocity (m/s): —
Left Depth (m): — Center Depth (m): — Right Depth (m): —

Local Watershed Erosion: ☐ None ☑ Slight ☐ Moderate ☐ Heavy
Local Watershed Pollution: ☐ None ☑ Slight ☐ Moderate ☐ Heavy

High Water Mark (m): 2.0 (above present water level) + 1.0 (present depth) = 3.0 (above bed)

Buffer Width (m): Left Bank: >18 ADR Right Bank: >18 m

METHODS / EQUIPMENT USED

Assessment Conducted: ☑ SCI ☑ HA ☐ RPS ☐ LVS ☐ LVS<2m² ☐ BioRecon ☐ Other (Specify) ☐ None
☑ The RPS was not conducted due to the minimal presence of algae at the site as indicated above.
☑ Photo evidence is available to document this condition.

Collection Method: ☑ Wading ☐ Shore ☐ Boat (Gas motor) ☐ Other
Blank: ☐ Equipment ☐ Field ☑ None

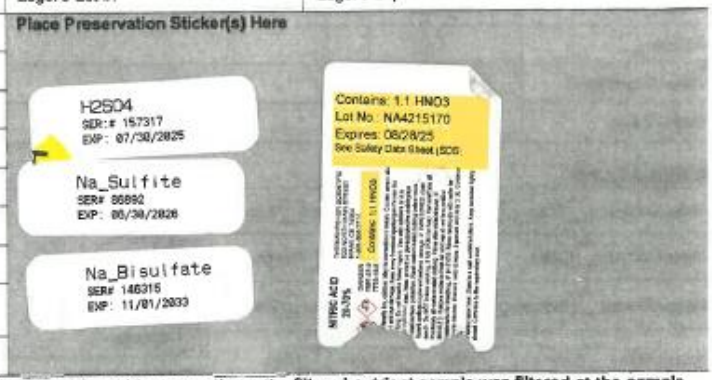
Sampling Equipment: ☐ Dipper ☐ Peristaltic pump ☐ Depth sampler ☑ None/Direct grab ☐ Other Intermediate Device (Specify)
Equipment ID (if applicable)

62-160.800, F.A.C. Page 1 of 2 Revision Date: May 2022

SITE Chattahoochee WWTP FYI Mosquito Creek Control DATE 2/24/25

SAMPLES TAKEN

Parameter Suite	Preservation	Additional Preservation Information		pH Check
☑ Preserved nutrients	☑ Ice ☑ H2SO4	H2SO4 Lot #: sticker	H2SO4 Expiration Date: sticker	☑ <2
☑ Metals	☑ Ice ☑ HNO3	HNO3 Lot #: sticker	HNO3 Expiration Date: sticker	☑ <2
☑ Filtered Nutrients	☑ Ice ☑ 0.45 µm Filter	Syringe Lot #: 9120806	Filter Lot #: 43687	
☑ Macroinvertebrates	☑ Formalin	Formalin Lot #: 9590225	Formalin Expiration Date: N/A	
☐ Phytoplankton	☐ Ice ☐ Lugol's	Lugol's Lot #: —	Lugol's Expiration Date: —	
☑ Chlorophyll	☑ Ice	Place Preservation Sticker(s) Here		
☑ Physical/Aggregate	☑ Ice			
☐ Periphyton	☐ Ice			
☑ Microbiology	☑ Ice			
☐ Molecular - qPCR	☐ Ice			
☐ Chemical WW Tracers	☐ Ice			
☐ Pesticides/Herbicides	☐ Ice			
☐ Algal Bloom ID:	☐ Ice			
☐ Other				



The following apply unless otherwise noted: 1 mL of acid was used for acid preservations; the filtered nutrient sample was filtered at the sample collection time; and preservation was complete within 15 minutes of sample collection.

Notes & Observations (evidence of vegetation management):

W 1-4 D10X (additional parameters)
AA-AGP → preserved with Na-Sulfite + Na-Bisulfate Stickers above
CBOD
W-E8321-D1
W-E8321-MS

Print Name:	Signature:	Date:
Ashley O'Neal	Ashley O'Neal	2/24/2025

Sampling Team Members	Meter Readings	Sample Collection	Documentation	Preservation	Preservation Check
1. Amelia Rankin	✓	✓		✓	✓
2. Ashley O'Neal		✓	✓	✓	✓
3.					
4.					

For (FDEP) Office Use Only:

SBIO ID Numbers: SBIO Visit ID:_____ RPS-ID:_____ Macrophyte-ID:_____

LIMS ID:_____ WIN Import ID:_____

Data Entry and QA/QC:

Scan Field Sheets:_____ (Initials/Date) Field Parameters Entered into SBIO:_____ (Initials/Date) SBIO QA/QC:_____ (Initials/Date)

LIMS QA/QC:_____ (Initials/Date) Migrate Data to WIN:_____ (Initials/Date)

62-160.800, F.A.C. Page 2 of 2 Revision Date: May 202

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

SAMPLING AGENCY: FDEP/Biology/AEQAS	~~STORET~~/WIN STATION NUMBER: NOSTORETCHATTA	DATE (MMDDYY): 2/24/25	RECEIVING BODY OF WATER: Apalach. River
REMARKS: SRSO-FD 30444 Rep 5/14/25	COUNTY: Gadsden	LOCATION: MS Bui to Creek control	FIELD ID/NAME: Chatt. FY15 Control

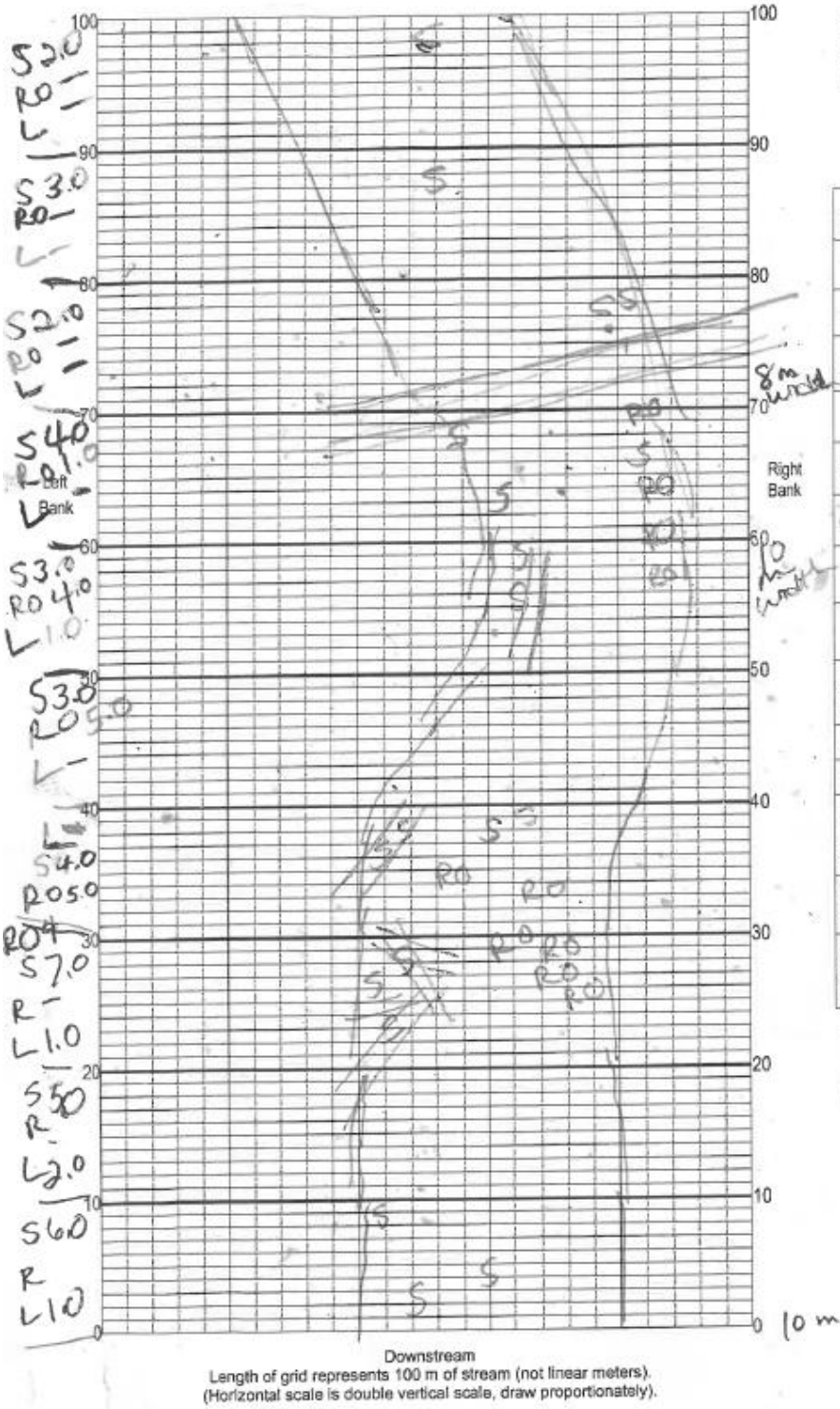
Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 17	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock] 20 19 18 17 16	Three major productive habitats present. Adequate habitat. 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 7	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 .4	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 12 Primary Score 51	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** 20	Expected sinuosity given the streamwidth. 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 6 Left Bank 5	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankful 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 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 7 Left Bank 6 Secondary Score 58 62	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

~~129~~ 113 **TOTAL SCORE**

Date: 2/24/25	Analyst: A. O'Neal	Signature: Ashley O'Neal

62-160.800, F.A.C. (Effective Date)

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



Location: Mosquito Creek Conn
Date: 2/24/2025
Sampler: A. D'Neal
100 m: Latitude 30.68611962
Longitude -84.84404288
0 m: Latitude 30.686633N
Longitude -84.844869

% coverage	Code key, draw proportionate habitat abundance.		# Sweeps
45	S	Snags	5
~~2~~10	R	Roots/undercut banks	–
<1%	L	Leaf Packs (or mats)	5
		Aquatic Macrophytes	
2.5%	RO	Rock	5
93%		Sand	5
		Other:	

P Pools — total # observed = 3 ; # range expected = 1-2

Average width: 10 m
Average depth: 1 m

Velocity measured at 70 meter mark.

WQ & chemistry taken at 0 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:
Acer rubrum
Carpinus
Quercus michauxii

62-160.800, F.A.C

Revision Date: August 2024

Appendix D. Chemical Analysis of Effluent and Receiving Water

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/24/2025 10:29	EFF-02 Comp	Overflow	Carbonaceous Biochemical Oxygen Demand	2.0 U	mg/L	2.0	2.0
2/24/2025 10:29	EFF-02 Comp	Toxicology	Bioassay-Chron-Def-FW-Fish, NOEC	100	NOEC		
2/24/2025 10:29	EFF-02 Comp	Toxicology	Bioassay-Chron-Def-FW-C.dubia, NOEC	100	NOEC		
2/24/2025 10:29	EFF-02 Comp	Toxicology	Bioassay-Chron-Def-FW-C.dubia, IC25	100 L	IC25		
2/24/2025 10:29	EFF-02 Comp	Toxicology	Bioassay-Chron-Def-FW-Fish, IC25	100 L	IC25		
2/24/2025 10:29	EFF-02 Comp	Nutrients	Total-P	1.4 Y	mg P/L	0.050	0.25
2/24/2025 10:29	EFF-02 Comp	Nutrients	TSS	4 I	mg/L	2.0	10
2/24/2025 10:29	EFF-02 Comp	Nutrients	Temperature	4.3	C		
2/24/2025 10:29	EFF-02 Comp	Nutrients	Dissolved Oxygen %Sat	76.1	%Sat		
2/24/2025 10:29	EFF-02 Comp	Nutrients	pH	7.06			
2/24/2025 11:00	Test Site	AGP/LN	Algal Growth Potential	4.51	mg DryWt/L	0.300	0.900
2/24/2025 11:00	Test Site	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Uncorrected	1.9 I	µg/L	1.4	4.0
2/24/2025 11:00	Test Site	Chlorophyll/Grain Size/BOD	Phaeophytin-a	2.0 U	µg/L	2.0	6.1
2/24/2025 11:00	Test Site	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	2.0 I	µg/L	1.9	5.6
2/24/2025 11:00	Test Site	Microbiology	Escherichia Coli-Quanti-Tray	187.2	MPN/100 mL	1.0	1.0
2/24/2025 11:00	Test Site	Microbiology	Fecal Coliforms-Membrane Filter	250	cfu/100 mL	10	10
2/24/2025 11:00	Test Site	Overflow	Carbonaceous Biochemical Oxygen Demand	2.0 U	mg/L	2.0	2.0
2/24/2025 11:00	Test Site	Metals	Aluminum	422	µg/L	5.0	20
2/24/2025 11:00	Test Site	Metals	Lead	0.29 I	µg/L	0.20	0.40
2/24/2025 11:00	Test Site	Metals	Nickel	0.50 U	µg/L	0.50	2.0
2/24/2025 11:00	Test Site	Metals	Zinc	5.0 U	µg/L	5.0	20
2/24/2025 11:00	Test Site	Metals	Calcium	9.23	mg/L	0.075	0.30
2/24/2025 11:00	Test Site	Metals	Arsenic	0.38	µg/L	0.050	0.20
2/24/2025 11:00	Test Site	Metals	Iron	560	µg/L	30	120
2/24/2025 11:00	Test Site	Metals	Sodium	3.0	mg/L	0.50	2.0
2/24/2025 11:00	Test Site	Metals	Silver	0.010 U	µg/L	0.010	0.040
2/24/2025 11:00	Test Site	Metals	Cadmium	0.020 U	µg/L	0.020	0.080
2/24/2025 11:00	Test Site	Metals	Chromium	0.66 I	µg/L	0.40	1.6
2/24/2025 11:00	Test Site	Metals	Selenium	0.20 U	µg/L	0.20	0.80
2/24/2025 11:00	Test Site	Metals	Copper	0.77 I	µg/L	0.40	0.80
2/24/2025 11:00	Test Site	Metals	Potassium	0.82 I	mg/L	0.30	1.2
2/24/2025 11:00	Test Site	Metals	Magnesium	3.76	mg/L	0.040	0.16

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/24/2025 11:00	Test Site	Nutrients	Chloride	5.8	mg Cl/L	0.20	0.50
2/24/2025 11:00	Test Site	Nutrients	O-Phosphate-P	0.020	mg P/L	0.0040	0.010
2/24/2025 11:00	Test Site	Nutrients	TSS	6 I	mg/L	2.0	10
2/24/2025 11:00	Test Site	Nutrients	Kjeldahl Nitrogen	0.18 I	mg N/L	0.080	0.20
2/24/2025 11:00	Test Site	Nutrients	Total-P	0.045	mg P/L	0.0020	0.0050
2/24/2025 11:00	Test Site	Nutrients	Fluoride	0.058 I	mg F/L	0.025	0.10
2/24/2025 11:00	Test Site	Nutrients	Turbidity	7.6	NTU	0.10	1.0
2/24/2025 11:00	Test Site	Nutrients	Organic Carbon	4.6	mg C/L	0.50	1.0
2/24/2025 11:00	Test Site	Nutrients	NO2NO3-N	0.62	mg N/L	0.0040	0.010
2/24/2025 11:00	Test Site	Nutrients	Ammonia-N	0.009	mg N/L	0.0020	0.0050
2/24/2025 11:00	Test Site	Nutrients	Color (true)	46	PCU	2.5	6.0
2/24/2025 11:00	Test Site	Nutrients	Total Alkalinity	33	mg CaCO3/L	0.65	2.5
2/24/2025 11:00	Test Site	Nutrients	Sulfate	1.6	mg SO4/L	0.20	0.50
2/24/2025 11:00	Test Site	Pesticides	Naproxen	0.0080 U	µg/L	0.0080	0.032
2/24/2025 11:00	Test Site	Pesticides	Ibuprofen	0.080 U	µg/L	0.080	0.32
2/24/2025 11:00	Test Site	Pesticides	Sucralose	0.63	µg/L	0.010	0.040
2/24/2025 11:00	Test Site	Priority Organic Pollutants	1,4-Dioxane	0.040 U	µg/L	0.040	0.16
2/24/2025 11:00	Test Site	Nutrients	pH	7.42			
2/24/2025 11:00	Test Site	Nutrients	Sample Depth	0.1	m		
2/24/2025 11:00	Test Site	Nutrients	Specific Conductance	90.0	µmhos/cm		
2/24/2025 11:00	Test Site	Nutrients	Dissolved Oxygen mg/L	10.64	mg/L		
2/24/2025 11:00	Test Site	Nutrients	Temperature	11.9	C		
2/24/2025 11:10	Control Site	AGP/LN	Algal Growth Potential	5.99	mg DryWt/L	0.300	0.900
2/24/2025 11:10	Control Site	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	1.9 U	µg/L	1.9	5.6
2/24/2025 11:10	Control Site	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Uncorrected	1.9 I	µg/L	1.4	4.0
2/24/2025 11:10	Control Site	Chlorophyll/Grain Size/BOD	Phaeophytin-a	2.0 U	µg/L	2.0	6.1
2/24/2025 11:10	Control Site	Microbiology	Escherichia Coli-Quanti-Tray	410.6	MPN/100 mL	1.0	1.0
2/24/2025 11:10	Control Site	Microbiology	Fecal Coliforms-Membrane Filter	160 B	cfu/100 mL	9	9
2/24/2025 11:10	Control Site	Overflow	Carbonaceous Biochemical Oxygen Demand	2.0 U	mg/L	2.0	2.0
2/24/2025 11:10	Control Site	Metals	Sodium	3.0	mg/L	0.50	2.0
2/24/2025 11:10	Control Site	Metals	Iron	580	µg/L	30	120
2/24/2025 11:10	Control Site	Metals	Zinc	5.0 U	µg/L	5.0	20
2/24/2025 11:10	Control Site	Metals	Aluminum	411	µg/L	5.0	20
2/24/2025 11:10	Control Site	Metals	Magnesium	3.88	mg/L	0.040	0.16

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/24/2025 11:10	Control Site	Metals	Copper	0.76 I	µg/L	0.40	0.80
2/24/2025 11:10	Control Site	Metals	Silver	0.010 U	µg/L	0.010	0.040
2/24/2025 11:10	Control Site	Metals	Arsenic	0.38	µg/L	0.050	0.20
2/24/2025 11:10	Control Site	Metals	Chromium	0.65 I	µg/L	0.40	1.6
2/24/2025 11:10	Control Site	Metals	Lead	0.29 I	µg/L	0.20	0.40
2/24/2025 11:10	Control Site	Metals	Potassium	0.83 I	mg/L	0.30	1.2
2/24/2025 11:10	Control Site	Metals	Calcium	9.24	mg/L	0.075	0.30
2/24/2025 11:10	Control Site	Metals	Nickel	0.50 U	µg/L	0.50	2.0
2/24/2025 11:10	Control Site	Metals	Selenium	0.20 U	µg/L	0.20	0.80
2/24/2025 11:10	Control Site	Metals	Cadmium	0.020 U	µg/L	0.020	0.080
2/24/2025 11:10	Control Site	Nutrients	Total-P	0.046	mg P/L	0.0020	0.0050
2/24/2025 11:10	Control Site	Nutrients	NO2NO3-N	0.62	mg N/L	0.0040	0.010
2/24/2025 11:10	Control Site	Nutrients	TSS	6 I	mg/L	2.0	10
2/24/2025 11:10	Control Site	Nutrients	Total Alkalinity	32	mg CaCO3/L	0.65	2.5
2/24/2025 11:10	Control Site	Nutrients	Chloride	5.8	mg Cl/L	0.20	0.50
2/24/2025 11:10	Control Site	Nutrients	Turbidity	7.7	NTU	0.10	1.0
2/24/2025 11:10	Control Site	Nutrients	Kjeldahl Nitrogen	0.21	mg N/L	0.080	0.20
2/24/2025 11:10	Control Site	Nutrients	Organic Carbon	4.6	mg C/L	0.50	1.0
2/24/2025 11:10	Control Site	Nutrients	Fluoride	0.057 I	mg F/L	0.025	0.10
2/24/2025 11:10	Control Site	Nutrients	Sulfate	1.5	mg SO4/L	0.20	0.50
2/24/2025 11:10	Control Site	Nutrients	Color (true)	47	PCU	2.5	6.0
2/24/2025 11:10	Control Site	Nutrients	O-Phosphate-P	0.020	mg P/L	0.0040	0.010
2/24/2025 11:10	Control Site	Nutrients	Ammonia-N	0.009	mg N/L	0.0020	0.0050
2/24/2025 11:10	Control Site	Pesticides	Sucralose	0.70	µg/L	0.010	0.040
2/24/2025 11:10	Control Site	Pesticides	Naproxen	0.0080 U	µg/L	0.0080	0.032
2/24/2025 11:10	Control Site	Pesticides	Ibuprofen	0.080 U	µg/L	0.080	0.32
2/24/2025 11:10	Control Site	Priority Organic Pollutants	1,4-Dioxane	0.040 U	µg/L	0.040	0.16
2/24/2025 11:10	Control Site	Nutrients	Specific Conductance	90.1	µmhos/cm		
2/24/2025 11:10	Control Site	Nutrients	Temperature	11.7	C		
2/24/2025 11:10	Control Site	Nutrients	pH	7.39			
2/24/2025 11:10	Control Site	Nutrients	Dissolved Oxygen mg/L	10.54	mg/L		
2/24/2025 11:10	Control Site	Nutrients	Sample Depth	0.1	m		
2/26/2025 12:55	EFF-02 Grab	AGP/LN	Algal Growth Potential	32.4 A	mg DryWt/L	0.300	0.900
2/26/2025 12:55	EFF-02 Grab	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	1.0 I	µg/L	0.93	2.8

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/26/2025 12:55	EFF-02 Grab	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Uncorrected	0.81 I	µg/L	0.68	2.0
2/26/2025 12:55	EFF-02 Grab	Chlorophyll/Grain Size/BOD	Phaeophytin-a	1.0 U	µg/L	1.0	3.0
2/26/2025 12:55	EFF-02 Grab	Microbiology	Escherichia Coli-Quanti-Tray	2419.6 J	MPN/100 mL	1.0	1.0
2/26/2025 12:55	EFF-02 Grab	Microbiology	Fecal Coliforms-Membrane Filter	6100 B	cfu/100 mL	100	100
2/26/2025 12:55	EFF-02 Grab	Metals	Nickel	0.52 I	µg/L	0.50	2.0
2/26/2025 12:55	EFF-02 Grab	Metals	Silver	0.010 U	µg/L	0.010	0.040
2/26/2025 12:55	EFF-02 Grab	Metals	Arsenic	0.74	µg/L	0.050	0.20
2/26/2025 12:55	EFF-02 Grab	Metals	Potassium	5.3	mg/L	0.30	1.2
2/26/2025 12:55	EFF-02 Grab	Metals	Zinc	26	µg/L	5.0	20
2/26/2025 12:55	EFF-02 Grab	Metals	Sodium	20.7	mg/L	0.50	2.0
2/26/2025 12:55	EFF-02 Grab	Metals	Cadmium	0.020 U	µg/L	0.020	0.080
2/26/2025 12:55	EFF-02 Grab	Metals	Selenium	0.20 U	µg/L	0.20	0.80
2/26/2025 12:55	EFF-02 Grab	Metals	Lead	0.20 U	µg/L	0.20	0.40
2/26/2025 12:55	EFF-02 Grab	Metals	Copper	2.07	µg/L	0.40	0.80
2/26/2025 12:55	EFF-02 Grab	Metals	Chromium	0.40 U	µg/L	0.40	1.6
2/26/2025 12:55	EFF-02 Grab	Metals	Aluminum	20	µg/L	5.0	20
2/26/2025 12:55	EFF-02 Grab	Metals	Calcium	42.1	mg/L	0.075	0.30
2/26/2025 12:55	EFF-02 Grab	Metals	Iron	62.9 I	µg/L	30	120
2/26/2025 12:55	EFF-02 Grab	Metals	Magnesium	13.5	mg/L	0.040	0.16
2/26/2025 12:55	EFF-02 Grab	Nutrients	Total Alkalinity	121 A	mg CaCO3/L	0.65	2.5
2/26/2025 12:55	EFF-02 Grab	Nutrients	Ammonia-N	0.76	mg N/L	0.040	0.10
2/26/2025 12:55	EFF-02 Grab	Nutrients	Turbidity	1.9	NTU	0.10	1.0
2/26/2025 12:55	EFF-02 Grab	Nutrients	Sulfate	16 A	mg SO4/L	0.20	0.50
2/26/2025 12:55	EFF-02 Grab	Nutrients	Organic Carbon	3.8	mg C/L	0.50	1.0
2/26/2025 12:55	EFF-02 Grab	Nutrients	NO2NO3-N	6.7	mg N/L	0.40	1.0
2/26/2025 12:55	EFF-02 Grab	Nutrients	Chloride	25 A	mg Cl/L	0.20	0.50
2/26/2025 12:55	EFF-02 Grab	Nutrients	O-Phosphate-P	1.3	mg P/L	0.040	0.10
2/26/2025 12:55	EFF-02 Grab	Nutrients	Kjeldahl Nitrogen	1.5	mg N/L	0.080	0.20
2/26/2025 12:55	EFF-02 Grab	Nutrients	Total-P	1.6	mg P/L	0.050	0.25
2/26/2025 12:55	EFF-02 Grab	Nutrients	Fluoride	0.15	mg F/L	0.025	0.10
2/26/2025 12:55	EFF-02 Grab	Nutrients	Color (true)	10	PCU	2.5	6.0
2/26/2025 12:55	EFF-02 Grab	Pesticides	Sucralose	45	µg/L	0.10	0.40
2/26/2025 12:55	EFF-02 Grab	Pesticides	Ibuprofen	0.098 I	µg/L	0.080	0.32
2/26/2025 12:55	EFF-02 Grab	Pesticides	Dimethenamid	0.11 U	ng/L	0.11	0.53

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/26/2025 12:55	EFF-02 Grab	Pesticides	Fipronil Sulfide	1.3	ng/L	0.11	0.53
2/26/2025 12:55	EFF-02 Grab	Pesticides	Flutolanil	0.11 U	ng/L	0.11	0.53
2/26/2025 12:55	EFF-02 Grab	Pesticides	Loratadine	0.49 I	ng/L	0.32	1.6
2/26/2025 12:55	EFF-02 Grab	Pesticides	Metalaxyl	0.53 U	ng/L	0.53	2.6
2/26/2025 12:55	EFF-02 Grab	Pesticides	Oxyfluorfen	0.21 U	ng/L	0.21	1.1
2/26/2025 12:55	EFF-02 Grab	Pesticides	Prodiamine	0.21 U	ng/L	0.21	1.1
2/26/2025 12:55	EFF-02 Grab	Pesticides	Triadimefon	0.16 U	ng/L	0.16	0.79
2/26/2025 12:55	EFF-02 Grab	Pesticides	EPTC	0.53 U	ng/L	0.53	2.6
2/26/2025 12:55	EFF-02 Grab	Pesticides	Cyprodinil	0.21 U	ng/L	0.21	1.1
2/26/2025 12:55	EFF-02 Grab	Pesticides	Acetochlor	0.21 U	ng/L	0.21	1.1
2/26/2025 12:55	EFF-02 Grab	Pesticides	Atrazine	0.87 I	ng/L	0.21	1.1
2/26/2025 12:55	EFF-02 Grab	Pesticides	Chlorpyrifos Ethyl	0.32 U	ng/L	0.32	1.6
2/26/2025 12:55	EFF-02 Grab	Pesticides	Cyanazine	5.3 U	ng/L	5.3	26
2/26/2025 12:55	EFF-02 Grab	Pesticides	Fipronil Desulfinyl	0.26 I	ng/L	0.11	0.53
2/26/2025 12:55	EFF-02 Grab	Pesticides	Disulfoton	0.63 U	ng/L	0.63	3.2
2/26/2025 12:55	EFF-02 Grab	Pesticides	Fluazifop-P-butyl	0.11 U	ng/L	0.11	0.53
2/26/2025 12:55	EFF-02 Grab	Pesticides	Fludioxonil	0.32 I	ng/L	0.11	0.53
2/26/2025 12:55	EFF-02 Grab	Pesticides	Flumioxazin	3.2 U	ng/L	3.2	16
2/26/2025 12:55	EFF-02 Grab	Pesticides	Myclobutanil	0.37 U	ng/L	0.37	1.8
2/26/2025 12:55	EFF-02 Grab	Pesticides	Pendimethalin	1.8 UJ	ng/L	1.8	9.0
2/26/2025 12:55	EFF-02 Grab	Pesticides	Propargite	0.85 U	ng/L	0.85	4.2
2/26/2025 12:55	EFF-02 Grab	Pesticides	Propiconazole	0.63 U	ng/L	0.63	3.2
2/26/2025 12:55	EFF-02 Grab	Pesticides	Ethion	0.32 U	ng/L	0.32	1.6
2/26/2025 12:55	EFF-02 Grab	Pesticides	Ametryn	1.2 U	ng/L	1.2	5.8
2/26/2025 12:55	EFF-02 Grab	Pesticides	Atrazine Desethyl	1.4 U	ng/L	1.4	6.9
2/26/2025 12:55	EFF-02 Grab	Pesticides	Caffeine	900	ng/L	79	400
2/26/2025 12:55	EFF-02 Grab	Pesticides	Dimethomorph	0.69 U	ng/L	0.69	3.4
2/26/2025 12:55	EFF-02 Grab	Pesticides	Hexazinone	0.53 U	ng/L	0.53	2.6
2/26/2025 12:55	EFF-02 Grab	Pesticides	Malathion	0.37 U	ng/L	0.37	1.8
2/26/2025 12:55	EFF-02 Grab	Pesticides	Metolachlor	0.79 U	ng/L	0.79	4.0
2/26/2025 12:55	EFF-02 Grab	Pesticides	Parathion Ethyl	0.16 U	ng/L	0.16	0.79
2/26/2025 12:55	EFF-02 Grab	Pesticides	Tebuconazole	3.2 I	ng/L	1.5	7.4
2/26/2025 12:55	EFF-02 Grab	Pesticides	Fenamiphos	0.48 U	ng/L	0.48	2.4
2/26/2025 12:55	EFF-02 Grab	Pesticides	Azoxystrobin	0.98 I	ng/L	0.42	2.1

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/26/2025 12:55	EFF-02 Grab	Pesticides	Fluxapyroxad	0.26 U	ng/L	0.26	1.3
2/26/2025 12:55	EFF-02 Grab	Pesticides	Fonofos	0.16 U	ng/L	0.16	0.79
2/26/2025 12:55	EFF-02 Grab	Pesticides	Imazalil	0.69 UJ	ng/L	0.69	3.4
2/26/2025 12:55	EFF-02 Grab	Pesticides	Naled	2.6 U	ng/L	2.6	13
2/26/2025 12:55	EFF-02 Grab	Pesticides	Norflurazon	1.1 U	ng/L	1.1	5.3
2/26/2025 12:55	EFF-02 Grab	Pesticides	Phenytoin	5.6 U	ng/L	5.6	28
2/26/2025 12:55	EFF-02 Grab	Pesticides	Prometon	3.2 U	ng/L	3.2	16
2/26/2025 12:55	EFF-02 Grab	Pesticides	Pyraflufen Ethyl	0.32 U	ng/L	0.32	1.6
2/26/2025 12:55	EFF-02 Grab	Pesticides	Pyriproxyfen	0.26 U	ng/L	0.26	1.7
2/26/2025 12:55	EFF-02 Grab	Pesticides	Terbuthylazine	0.21 U	ng/L	0.21	1.1
2/26/2025 12:55	EFF-02 Grab	Pesticides	Etridiazole	0.11 U	ng/L	0.11	0.53
2/26/2025 12:55	EFF-02 Grab	Pesticides	Fipronil	2.9 J	ng/L	0.21	1.1
2/26/2025 12:55	EFF-02 Grab	Pesticides	Azinphos Methyl	3.2 U	ng/L	3.2	16
2/26/2025 12:55	EFF-02 Grab	Pesticides	Coumaphos	1.1 U	ng/L	1.1	5.8
2/26/2025 12:55	EFF-02 Grab	Pesticides	Iprodione	0.53 U	ng/L	0.53	2.6
2/26/2025 12:55	EFF-02 Grab	Pesticides	Mevinphos	1.1 U	ng/L	1.1	5.3
2/26/2025 12:55	EFF-02 Grab	Pesticides	Molinate	0.26 U	ng/L	0.26	1.3
2/26/2025 12:55	EFF-02 Grab	Pesticides	Oxadiazon	0.37 U	ng/L	0.37	1.8
2/26/2025 12:55	EFF-02 Grab	Pesticides	Propanil	0.11 U	ng/L	0.11	0.53
2/26/2025 12:55	EFF-02 Grab	Pesticides	Stirophos	0.42 U	ng/L	0.42	3.4
2/26/2025 12:55	EFF-02 Grab	Pesticides	Thiobencarb	0.53 U	ng/L	0.53	2.6
2/26/2025 12:55	EFF-02 Grab	Pesticides	Dithiopyr	2.1 U	ng/L	2.1	11
2/26/2025 12:55	EFF-02 Grab	Pesticides	Fenbuconazole	0.53 U	ng/L	0.53	2.6
2/26/2025 12:55	EFF-02 Grab	Pesticides	Alachlor	0.42 U	ng/L	0.42	2.1
2/26/2025 12:55	EFF-02 Grab	Pesticides	Bromacil	0.63 U	ng/L	0.63	3.2
2/26/2025 12:55	EFF-02 Grab	Pesticides	Chlorfenapyr	0.32 U	ng/L	0.32	1.6
2/26/2025 12:55	EFF-02 Grab	Pesticides	Chlorpyrifos Methyl	0.11 UJ	ng/L	0.11	0.53
2/26/2025 12:55	EFF-02 Grab	Pesticides	Naproxen	0.12	µg/L	0.0080	0.032
2/26/2025 12:55	EFF-02 Grab	Pesticides	Diazinon	0.13 U	ng/L	0.13	0.66
2/26/2025 12:55	EFF-02 Grab	Pesticides	Napropamide	0.74 U	ng/L	0.74	3.7
2/26/2025 12:55	EFF-02 Grab	Pesticides	Phorate	0.26 U	ng/L	0.26	1.3
2/26/2025 12:55	EFF-02 Grab	Pesticides	Simazine	0.26 U	ng/L	0.26	1.3
2/26/2025 12:55	EFF-02 Grab	Pesticides	Sulfentrazone	1.5 U	ng/L	1.5	7.4
2/26/2025 12:55	EFF-02 Grab	Pesticides	Terbufos	0.21 U	ng/L	0.21	1.1

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/26/2025 12:55	EFF-02 Grab	Pesticides	Ethoprop	0.13 U	ng/L	0.13	0.66
2/26/2025 12:55	EFF-02 Grab	Pesticides	Butylate	0.48 U	ng/L	0.48	2.4
2/26/2025 12:55	EFF-02 Grab	Pesticides	Carbophenothion	0.53 U	ng/L	0.53	2.6
2/26/2025 12:55	EFF-02 Grab	Pesticides	Demeton	3.7 U	ng/L	3.7	18
2/26/2025 12:55	EFF-02 Grab	Pesticides	Difenoconazole	0.63 U	ng/L	0.63	3.2
2/26/2025 12:55	EFF-02 Grab	Pesticides	Fipronil Sulfone	1.4 J	ng/L	0.26	1.3
2/26/2025 12:55	EFF-02 Grab	Pesticides	Metribuzin	0.42 U	ng/L	0.42	2.1
2/26/2025 12:55	EFF-02 Grab	Pesticides	Parathion Methyl	0.21 U	ng/L	0.21	1.1
2/26/2025 12:55	EFF-02 Grab	Pesticides	Prometryn	0.37 U	ng/L	0.37	1.8
2/26/2025 12:55	EFF-02 Grab	Pesticides	Pronamide	0.11 U	ng/L	0.11	0.53
2/26/2025 12:55	EFF-02 Grab	Pesticides	Pyridaben	1.5 U	ng/L	1.5	7.4
2/26/2025 12:55	EFF-02 Grab	Pesticides	Carfentrazone Ethyl	0.16 U	ng/L	0.16	0.79
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Nitrobenzene	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Pentachlorophenol	480 UJ	µg/L	480	1.9E+03
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9E+03 UJ	µg/L	2.9E+03	1.1E+04
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	2-Nitrophenol	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Acenaphthene	0.026 U	µg/L	0.026	0.10
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Benzo(a)pyrene	0.026 U	µg/L	0.026	0.10
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Phenol	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	2,4-Dichlorophenol	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Butyl benzyl phthalate	960 U	µg/L	960	3.8E+03
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Isophorone	0.052 UJ	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9E+03 U	µg/L	1.9E+03	7.6E+03
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Phenanthrene	0.10 U	µg/L	0.10	0.42
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	2-Chlorophenol	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Benzidine	9.6E+03 U	µg/L	9.6E+03	3.8E+04
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Chrysene	0.026 U	µg/L	0.026	0.10
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.026 UJ	µg/L	0.026	0.10
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Fluorene	0.026 U	µg/L	0.026	0.10
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Hexachloroethane	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Pyrene	0.10 U	µg/L	0.10	0.42

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	2,4-Dimethylphenol	0.052 UJ	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	2,4-Dinitrophenol	9.6E+03 UJ	µg/L	9.6E+03	3.8E+04
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	2,6-Dinitrotoluene	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	4-Nitrophenol	9.6E+03 U	µg/L	9.6E+03	3.8E+04
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	4.8E+03 U	µg/L	4.8E+03	1.9E+04
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Dimethyl phthalate	0.21 U	µg/L	0.21	0.84
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Hexachlorocyclopentadiene	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.026 UJ	µg/L	0.026	0.10
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	2-Chloronaphthalene	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.083 I	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Acenaphthylene	0.026 U	µg/L	0.026	0.10
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Anthracene	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Benzo(a)anthracene	0.026 U	µg/L	0.026	0.10
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.026 U	µg/L	0.026	0.10
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Di-n-butyl phthalate	1.9E+03 U	µg/L	1.9E+03	7.6E+03
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Di-n-octyl phthalate	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	1,4-Dioxane	0.040 U	µg/L	0.040	0.16
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Benzo(b)fluoranthene	0.026 U	µg/L	0.026	0.10
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Benzo(k)fluoranthene	0.026 U	µg/L	0.026	0.10
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Hexachlorobenzene	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Hexachlorobutadiene	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	2,4-Dinitrotoluene	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	3,3'-Dichlorobenzidine	9.6E+03 UJ	µg/L	9.6E+03	3.8E+04
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Diethyl phthalate	1.9E+03 U	µg/L	1.9E+03	7.6E+03
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Fluoranthene	0.052 U	µg/L	0.052	0.21
2/26/2025 12:55	EFF-02 Grab	Priority Organic Pollutants	Naphthalene	0.10 U	µg/L	0.10	0.42
2/26/2025 12:55	EFF-02 Grab	Nutrients	Sample Depth	0.1	m		
2/26/2025 11:15	Field Blank	Metals	Lead	0.20 U	µg/L	0.20	0.40
2/26/2025 11:15	Field Blank	Metals	Copper	0.40 U	µg/L	0.40	0.80

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/26/2025 11:15	Field Blank	Metals	Potassium	0.30 U	mg/L	0.30	1.2
2/26/2025 11:15	Field Blank	Metals	Magnesium	0.040 U	mg/L	0.040	0.16
2/26/2025 11:15	Field Blank	Metals	Aluminum	5.0 U	µg/L	5.0	20
2/26/2025 11:15	Field Blank	Metals	Zinc	5.0 U	µg/L	5.0	20
2/26/2025 11:15	Field Blank	Metals	Sodium	0.50 U	mg/L	0.50	2.0
2/26/2025 11:15	Field Blank	Metals	Chromium	0.40 U	µg/L	0.40	1.6
2/26/2025 11:15	Field Blank	Metals	Iron	30 U	µg/L	30	120
2/26/2025 11:15	Field Blank	Metals	Silver	0.010 U	µg/L	0.010	0.040
2/26/2025 11:15	Field Blank	Metals	Selenium	0.20 U	µg/L	0.20	0.80
2/26/2025 11:15	Field Blank	Metals	Arsenic	0.050 U	µg/L	0.050	0.20
2/26/2025 11:15	Field Blank	Metals	Nickel	0.50 U	µg/L	0.50	2.0
2/26/2025 11:15	Field Blank	Metals	Calcium	0.075 U	mg/L	0.075	0.30
2/26/2025 11:15	Field Blank	Metals	Cadmium	0.020 U	µg/L	0.020	0.080
2/26/2025 11:15	Field Blank	Nutrients	Fluoride	0.025 U	mg F/L	0.025	0.10
2/26/2025 11:15	Field Blank	Nutrients	NO2NO3-N	0.004 U	mg N/L	0.0040	0.010
2/26/2025 11:15	Field Blank	Nutrients	O-Phosphate-P	0.004 U	mg P/L	0.0040	0.010
2/26/2025 11:15	Field Blank	Nutrients	Ammonia-N	0.002 U	mg N/L	0.0020	0.0050
2/26/2025 11:15	Field Blank	Nutrients	Organic Carbon	0.50 U	mg C/L	0.50	1.0
2/26/2025 11:15	Field Blank	Nutrients	Color (true)	2.5 U	PCU	2.5	6.0
2/26/2025 11:15	Field Blank	Nutrients	Chloride	0.20 U	mg Cl/L	0.20	0.50
2/26/2025 11:15	Field Blank	Nutrients	Turbidity	0.10 U	NTU	0.10	1.0
2/26/2025 11:15	Field Blank	Nutrients	Kjeldahl Nitrogen	0.080 U	mg N/L	0.080	0.20
2/26/2025 11:15	Field Blank	Nutrients	Total-P	0.002 U	mg P/L	0.0020	0.0050
2/26/2025 11:15	Field Blank	Nutrients	Sulfate	0.20 U	mg SO4/L	0.20	0.50
2/26/2025 11:15	Field Blank	Nutrients	Total Alkalinity	0.65 U	mg CaCO3/L	0.65	2.5
2/26/2025 11:15	Field Blank	Pesticides	Chlorpyrifos Ethyl	0.31 U	ng/L	0.31	1.5
2/26/2025 11:15	Field Blank	Pesticides	Metalaxyl	0.52 U	ng/L	0.52	2.6
2/26/2025 11:15	Field Blank	Pesticides	Mevinphos	1.0 U	ng/L	1.0	5.2
2/26/2025 11:15	Field Blank	Pesticides	Norflurazon	1.0 U	ng/L	1.0	5.2
2/26/2025 11:15	Field Blank	Pesticides	Parathion Ethyl	0.15 U	ng/L	0.15	0.77
2/26/2025 11:15	Field Blank	Pesticides	Pendimethalin	1.8 UJ	ng/L	1.8	8.8
2/26/2025 11:15	Field Blank	Pesticides	Demeton	3.6 U	ng/L	3.6	18
2/26/2025 11:15	Field Blank	Pesticides	Disulfoton	0.62 U	ng/L	0.62	3.1
2/26/2025 11:15	Field Blank	Pesticides	Fipronil	0.21 U	ng/L	0.21	1.0

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/26/2025 11:15	Field Blank	Pesticides	Fipronil Desulfinyl	0.10 U	ng/L	0.10	0.52
2/26/2025 11:15	Field Blank	Pesticides	Imazalil	0.67 UJ	ng/L	0.67	3.4
2/26/2025 11:15	Field Blank	Pesticides	Prometon	3.1 U	ng/L	3.1	15
2/26/2025 11:15	Field Blank	Pesticides	Terbuthylazine	0.21 U	ng/L	0.21	1.0
2/26/2025 11:15	Field Blank	Pesticides	Dithiopyr	2.1 U	ng/L	2.1	10
2/26/2025 11:15	Field Blank	Pesticides	Acetochlor	0.21 U	ng/L	0.21	1.0
2/26/2025 11:15	Field Blank	Pesticides	Ametryn	1.1 U	ng/L	1.1	5.7
2/26/2025 11:15	Field Blank	Pesticides	Dimethenamid	0.10 U	ng/L	0.10	0.52
2/26/2025 11:15	Field Blank	Pesticides	Metribuzin	0.41 U	ng/L	0.41	2.1
2/26/2025 11:15	Field Blank	Pesticides	Naled	2.6 U	ng/L	2.6	13
2/26/2025 11:15	Field Blank	Pesticides	Tebuconazole	1.4 U	ng/L	1.4	7.2
2/26/2025 11:15	Field Blank	Pesticides	Bromacil	0.62 U	ng/L	0.62	3.1
2/26/2025 11:15	Field Blank	Pesticides	Chlorpyrifos Methyl	0.10 UJ	ng/L	0.10	0.52
2/26/2025 11:15	Field Blank	Pesticides	Diazinon	0.13 U	ng/L	0.13	0.64
2/26/2025 11:15	Field Blank	Pesticides	Fipronil Sulfide	0.10 U	ng/L	0.10	0.52
2/26/2025 11:15	Field Blank	Pesticides	Fipronil Sulfone	0.26 U	ng/L	0.26	1.3
2/26/2025 11:15	Field Blank	Pesticides	Fonofos	0.15 U	ng/L	0.15	0.77
2/26/2025 11:15	Field Blank	Pesticides	Parathion Methyl	0.21 U	ng/L	0.21	1.0
2/26/2025 11:15	Field Blank	Pesticides	Prodiamine	0.21 U	ng/L	0.21	1.0
2/26/2025 11:15	Field Blank	Pesticides	Prometryn	0.36 U	ng/L	0.36	1.8
2/26/2025 11:15	Field Blank	Pesticides	Pronamide	0.10 U	ng/L	0.10	0.52
2/26/2025 11:15	Field Blank	Pesticides	Sulfentrazone	1.4 U	ng/L	1.4	7.2
2/26/2025 11:15	Field Blank	Pesticides	Ethoprop	0.13 U	ng/L	0.13	0.64
2/26/2025 11:15	Field Blank	Pesticides	Flumioxazin	3.1 U	ng/L	3.1	15
2/26/2025 11:15	Field Blank	Pesticides	Malathion	0.36 U	ng/L	0.36	1.8
2/26/2025 11:15	Field Blank	Pesticides	Phorate	0.26 U	ng/L	0.26	1.3
2/26/2025 11:15	Field Blank	Pesticides	Propiconazole	0.62 U	ng/L	0.62	3.1
2/26/2025 11:15	Field Blank	Pesticides	Atrazine	0.21 U	ng/L	0.21	1.0
2/26/2025 11:15	Field Blank	Pesticides	Hexazinone	0.52 U	ng/L	0.52	2.6
2/26/2025 11:15	Field Blank	Pesticides	Metolachlor	0.77 U	ng/L	0.77	3.9
2/26/2025 11:15	Field Blank	Pesticides	Molinate	0.26 U	ng/L	0.26	1.3
2/26/2025 11:15	Field Blank	Pesticides	Oxadiazon	0.36 U	ng/L	0.36	1.8
2/26/2025 11:15	Field Blank	Pesticides	Azinphos Methyl	3.1 U	ng/L	3.1	15
2/26/2025 11:15	Field Blank	Pesticides	Carbophenothion	0.52 U	ng/L	0.52	2.6

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/26/2025 11:15	Field Blank	Pesticides	Ethion	0.31 U	ng/L	0.31	1.5
2/26/2025 11:15	Field Blank	Pesticides	Fenamiphos	0.46 U	ng/L	0.46	2.3
2/26/2025 11:15	Field Blank	Pesticides	Alachlor	0.41 U	ng/L	0.41	2.1
2/26/2025 11:15	Field Blank	Pesticides	Atrazine Desethyl	1.3 U	ng/L	1.3	6.7
2/26/2025 11:15	Field Blank	Pesticides	Butylate	0.46 U	ng/L	0.46	2.3
2/26/2025 11:15	Field Blank	Pesticides	Cyanazine	5.2 U	ng/L	5.2	26
2/26/2025 11:15	Field Blank	Pesticides	EPTC	0.52 U	ng/L	0.52	2.6
2/26/2025 11:15	Field Blank	Pesticides	Simazine	0.26 U	ng/L	0.26	1.3
2/26/2025 11:15	Field Blank	Pesticides	Terbufos	0.21 U	ng/L	0.21	1.0
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Phenanthrene	0.11 U	µg/L	0.11	0.42
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Phenol	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	2-Chloronaphthalene	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	2,4-Dichlorophenol	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Acenaphthene	0.026 U	µg/L	0.026	0.11
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Benzidine	9.4E+03 U	µg/L	9.4E+03	3.8E+04
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Di-n-butyl phthalate	1.9E+03 U	µg/L	1.9E+03	7.6E+03
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Hexachlorobenzene	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Hexachloroethane	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Isophorone	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	1,4-Dioxane	0.040 U	µg/L	0.040	0.16
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.8E+03 UJ	µg/L	2.8E+03	1.1E+04
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	4-Nitrophenol	9.4E+03 U	µg/L	9.4E+03	3.8E+04
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Benzo(a)pyrene	0.026 U	µg/L	0.026	0.11
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Benzo(k)fluoranthene	0.026 U	µg/L	0.026	0.11
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	4.7E+03 U	µg/L	4.7E+03	1.9E+04
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Fluorene	0.026 U	µg/L	0.026	0.11
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Hexachlorocyclopentadiene	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	2,6-Dinitrotoluene	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Acenaphthylene	0.026 U	µg/L	0.026	0.11
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Benzo(a)anthracene	0.026 U	µg/L	0.026	0.11
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Chrysene	0.026 U	µg/L	0.026	0.11

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.026 UJ	µg/L	0.026	0.11
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Naphthalene	0.11 U	µg/L	0.11	0.42
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Pyrene	0.11 U	µg/L	0.11	0.42
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.026 U	µg/L	0.026	0.11
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	2-Nitrophenol	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	2,4-Dinitrophenol	9.4E+03 UJ	µg/L	9.4E+03	3.8E+04
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	2,4-Dimethylphenol	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	2,4-Dinitrotoluene	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Dimethyl phthalate	0.21 U	µg/L	0.21	0.85
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Fluoranthene	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Hexachlorobutadiene	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9E+03 U	µg/L	1.9E+03	7.6E+03
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Nitrobenzene	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Pentachlorophenol	470 UJ	µg/L	470	1.9E+03
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Diethyl phthalate	1.9E+03 U	µg/L	1.9E+03	7.6E+03
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.026 UJ	µg/L	0.026	0.11
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	2-Chlorophenol	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	3,3'-Dichlorobenzidine	9.4E+03 U	µg/L	9.4E+03	3.8E+04
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Anthracene	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Benzo(b)fluoranthene	0.026 U	µg/L	0.026	0.11
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.053 U	µg/L	0.053	0.21
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Butyl benzyl phthalate	940 U	µg/L	940	3.8E+03
2/26/2025 11:15	Field Blank	Priority Organic Pollutants	Di-n-octyl phthalate	0.053 U	µg/L	0.053	0.21