Effluent Quality Assessment of Green Cove Springs – Harbor Road WWTF Clay County NPDES # FL0020915 Sampled February 12 & 15, 2024

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

All analytes measured in the effluent grab and composite samples complied with the Class III Water Quality Criteria for Fresh Waters and effluent permit limits. The algal growth potential (AGP) and nutrient results do not suggest a potential for nutrient enrichment of the receiving waters. There were nineteen organic constituents detected in the effluent grab sample.

Facility Overview

The Green Cove Springs—Harbor Road WWTF Facility is a domestic wastewater treatment facility. A Facility Summary, including a description of the facility, summary of permit limits, and any relevant Administrative Order (AO), Consent Order (CO), and Discharge Monitoring Report (DMR) information is provided in Appendix A. The effluent is intermittently discharged into the St Johns River, a Class III Fresh Water [waterbody identification (WBID) 2213I] (Figure 1).

The St. Johns River falls within the Site Specific Interpretations of the Narrative Nutrient Criterion (NNC). For this segment of the St. Johns River above Black Creek, the NNC, expressed as annual load, are 500,325 kg/yr total phosphorus and 8,571,563 kg/yr total nitrogen (Paragraph 62-304.415(1), F.A.C.); and, expressed as annual geometric mean, is 20 µg/L chlorophyll *a* (Paragraph 62-302.531(2)(b)1, F.A.C.). The St. Johns River falls within the Northeast bioregion; the daily average dissolved oxygen (DO) saturation shall not be below 53 percent saturation during February and March (Paragraph 62-302.533(3)(d), F.A.C.). This FYI event only provides single sample results. It should be noted that waterbody impairment assessments are based on longer-term data, and individual exceedances of a criterion do not indicate use impairment. http://ca.dep.state.fl.us/mapdirect/?focus=nutrientcriteria

Methods

Effluent grab samples were collected from monitoring site location EFD-1, the sampling point immediately after dechlorination, for outfall D-001 on February 12, 2024. Field blanks and equipment blanks were also collected on February 12, 2024. Effluent 24-hour time proportioned composite samples were collected from monitoring site location EFA-1, immediately following disinfection, for outfall D-001 on February 15, 2024.

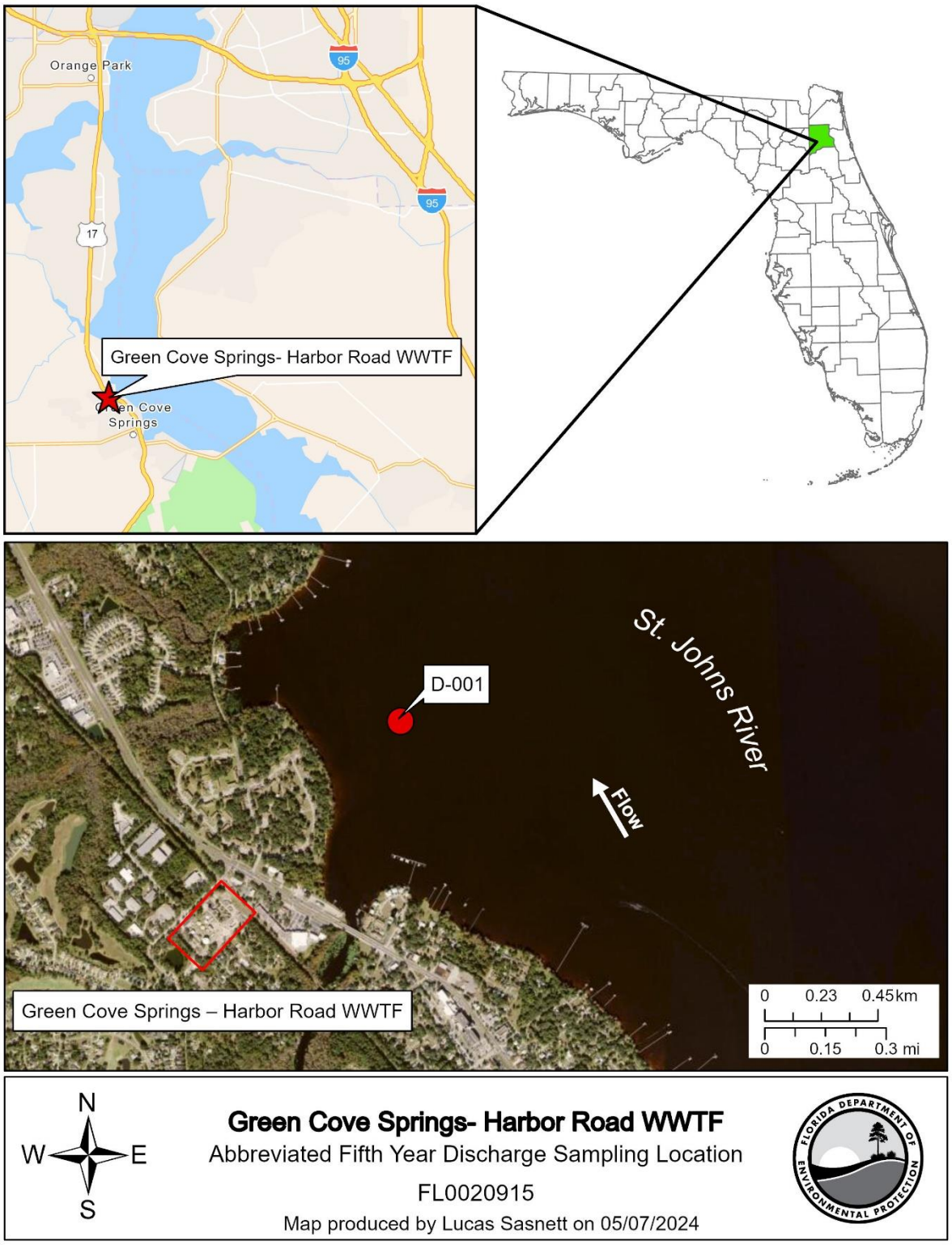
Samples were collected by Conor Lucey (Northeast District). Analyses were performed by Diversified Environmental Laboratories, Inc. in Jacksonville, Eurofins Environmental Testing Orlando, and DEP Laboratory in Tallahassee.

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 Discharge Location



Results

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

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

- Total Residual Chlorine compliance could not be determined because the minimum detection level of the meter was above the permit limit.

Analytical Water Chemistry (See Table 2 and Appendix D)

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

- The sample for CBOD analysis was analyzed outside of holding time due to a mistake at login. The result was Q-qualified.

- Total ammonia nitrogen and nitrate and nitrite were detected in the equipment blank.

Microbiology (See Table 2 and Appendix B)

- Effluent fecal coliform levels complied with effluent permit limits.

Toxicity Whole Effluent Test (See Table 2)

- Tests were performed February 13 through February 17, 2024.

- The sample was aerated for 15 minutes at a rate of approximately 100 bubbles per minute to decrease the dissolved oxygen (DO) from 10.5 mg/L to 8.3 mg/L.

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

- In a 96-hour acute definitive test of 100% effluent, mortality of <20% provides confidence that the effluent meets the acute toxicity criterion of Florida's Surface Water Quality Standards (Paragraph 62-302.500(1)(a), F.A.C.). Mortality between 20 and 50% indicates low to moderate levels of toxicity, and further action may be required. Mortality of >50% indicates that the effluent fails to meet the minimum requirement to discharge to waters of the state (Paragraph 62-4.244(3)(a), F.A.C.).

- For the 96-hour acute definitive test, the calculated LC50 for the water flea, *Ceriodaphnia dubia*, was >100% effluent with 0% mortality in 100% sample. The calculated LC50 for the fish, *Cyprinella leedsi*, was >100% effluent with 0% mortality in 100% sample. The effluent sample was not toxic to either test species, during the 96-hour acute definitive bioassays 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.

Algal Growth Potential (See Table 4 and Appendix B)

- The freshwater unicellular green alga, *Pseudokirchneriella subcapitata*, was used to determine the AGP values in the effluent grab sample. The analytical chemistry suggests that the effluent is ortho-phosphate limited (Miller et al. 1978).

- The effluent grab sample AGP result of 2.0 mg dry wt/L is within 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).

- 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.

Organic Constituents (See Table 7 and Appendix E)

- Atrazine (Herbicide), Azoxystrobin (Fungicide), Caffeine (Stimulant), Chlorfenapyr (Insecticide), Cyprodinil (Fungicide), Dimethomorph (Fungicide), Dithiopyr (Herbicide), Fipronil (Insecticide), Fipronil Desulfinyl (Insecticide), Fipronil Sulfide (Insecticide), Fipronil Sulfone (Insecticide), Fludioxonil (Fungicide), Loratadine (Antihistamine), Metribuzin (Herbicide), Propiconazole (Fungicide), Simazine (Herbicide), Sulfentrazone (Herbicide), Tebuconazole (Fungicide), and 2,4,6-Trichlorophenol (Pesticide) were detected in the effluent grab sample.

- There are no effluent permit limits for organic constituents.

Literature Cited

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

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

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

Table 1. Measured Field Parameters

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

Parameter	Units	Class III Criteria	Effluent Permit Limits	Effluent EFD-1
Temperature	C	-	Report	22.8
pH	SU	6.0 - 8.5	6.0 - 8.5	6.8
Specific Conductance	µmhos/cm	≤ 1,275	-	636
Salinity	ppt	-	-	0.3 c
Dissolved Oxygen	% saturation	≥ 53	-	91.4
Dissolved Oxygen	mg/L	-	≥ 5.0	7.8
Total Residual Chlorine	mg/L	-	≤ 0.01	0.02 U

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
c - Value is calculated
U - Material analyzed for but not detected; value reported is the method detection limit

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 Grab	Effluent Composite
Ortho-phosphate	mg P/L	-	Report	0.017	-
Total Phosphorus	mg P/L	-	Report	0.075	0.11
Total Ammonia Nitrogen [1]	mg N/L	≤ 4.19 sc	Report	1.9	4.1
Un-ionized Ammonia (calculated salinity)	mg N/L	-	-	< 0.02 c	-
Nitrate and Nitrite [1]	mg N/L	-	Report	6.6	5.1
Total Kjeldahl Nitrogen	mg N/L	-	Report	3.4	5.7
Organic Nitrogen	mg N/L	-	Report	1.5 c	1.6 c
Total Nitrogen	mg N/L	-	Report	10 c	10.8 c
Total Organic Carbon	mg C/L	-	-	8.5	8.4
Chlorophyll *a* - Corrected	µg/L	≤ 20	-	0.82 U	-
Phaeophytin	µg/L	-	-	0.90 U	-
CBOD, 5 day, N - inhibited	mg/L	-	≤ 60.0 sp	-	9.1 Q
Total Suspended Solids	mg/L	-	≤ 60 sp		2 I
Turbidity	NTU	≤ 29 t	-	0.55 I	-
Color (true)	PCU	-	-	20 A	-
Alkalinity	mg CaCO3/L	≥ 20	-	79 A	-
Chloride	mg Cl/L	-	-	83 A	-
Fluoride	mg F/L	≤ 10.0	-	0.20 J	-
Sulfate	mg SO4/L	-	-	81 A	-
Fecal Coliforms	cfu/100 mL	-	≤ 800 s	2 U	-
Bioassay - Water flea *(C. dubia)*	% effluent	-	> 100	> 100	-
Bioassay - Fish *(C. leedsi)*	% effluent	-	> 100	> 100	-

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
c - Value is calculated
p – 8-hour flow proportioned composite
s - Single sample
t - Shall not exceed 29 NTUs above background
A - Value reported is the mean of two or more determinations
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
J - Estimated value
Q - Sample held beyond normal holding time
U - Material analyzed for but not detected; value reported is the method detection limit
1 – Analyte detected in the equipment blank

Table 3. Analytical Metals Data

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

Analyte	Units	Effluent Grab Class III Criteria	Effluent Permit Limits	Effluent Grab
Hardness	mg CaCO3/L	-	-	113 c
Aluminum	µg/L	-	-	11 I
Arsenic	µg/L	≤ 50	-	0.22
Cadmium	µg/L	≤ 0.296 b	-	0.020 U
Calcium	mg/L	-	-	27.3
Chromium, Total [2]	µg/L	≤ 95 b	-	0.42 I
Copper	µg/L	≤ 10.3 b	-	0.49 I
Iron	µg/L	≤ 1,000	-	55 I
Lead	µg/L	≤ 3.7 b	-	0.20 U
Magnesium	mg/L	-	-	10.8
Nickel	µg/L	≤ 57.7 b	-	0.91 I
Potassium	mg/L	-	-	10.5
Selenium	µg/L	≤ 5.0	-	0.20 U
Silver	µg/L	≤ 0.07	-	0.010 U
Sodium	mg/L	-	-	67.0
Zinc	µg/L	≤ 133 b	-	20

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
2 - 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*	2.0	320 ± 65	7.3 ± 1.5	380 ± 76	32 ± 6.5	500	130

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	-	-	62
Azoxystrobin	ng/L	-	-	11 J
Caffeine	ng/L	-	-	34 I
Chlorfenapyr	ng/L	-	-	2.9
Cyprodinil	ng/L	-	-	0.78 I
Dimethomorph	ng/L	-	-	0.37 I
Dithiopyr	ng/L	-	-	1.3 IJ
Fipronil	ng/L	-	-	33
Fipronil Desulfinyl	ng/L	-	-	0.99
Fipronil Sulfide	ng/L	-	-	5.7
Fipronil Sulfone	ng/L	-	-	4.5
Fludioxonil	ng/L	-	-	3.4
Loratadine	ng/L	-	-	12
Metribuzin	ng/L	-	-	0.89 I
Propiconazole	ng/L	-	-	11
Simazine	ng/L	-	-	53
Sulfentrazone	ng/L	-	-	4.0 I
Tebuconazole	ng/L	-	-	6.4 I
2,4,6-Trichlorophenol	µg/L	-	-	0.17 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

Appendix A. Facility Summary

PART I: Information gathered prior to sampling event	
Prepared By: Ian Watkins	Contact Number: (904) 256-1573
Facility Name (as it appears on permit): Green Cove Springs – Harbor Road WWTF	Former Names: N/A
NPDES Permit Number: FL0020915	Permit Expiration Date: 06/13/2024
Physical Address: 1277 Harbor Road Green Cove Springs, FL 32043	
District: Northeast	County: Clay
Function of Facility: Domestic wastewater treatment	
Facility Type: DW NPDES Major	Permitted Capacity (MGD): 0.75 MGD (Existing) 1.25 MGD (Expansion)
Mean Flow for previous 12 months for all EXTERNAL outfalls listed in permit (list date range including months):	

Date	Monitoring Location	Description	Result	Limit	Units	Statistical Base
12/31/2023	EFD-1	Flow	0.206	0.65	MGD	AB - Annual Average
12/31/2023	EFD-1	Flow	0.176	Report	MGD	MK - Monthly Average
11/30/2023	EFD-1	Flow	0.21	0.65	MGD	AB - Annual Average
11/30/2023	EFD-1	Flow	0.11	Report	MGD	MK - Monthly Average
10/31/2023	EFD-1	Flow	0.224	0.65	MGD	AB - Annual Average
10/31/2023	EFD-1	Flow	0.202	Report	MGD	MK - Monthly Average
09/30/2023	EFD-1	Flow	0.238	0.65	MGD	AB - Annual Average
09/30/2023	EFD-1	Flow	0.161	Report	MGD	MK - Monthly Average
08/31/2023	EFD-1	Flow	0.264	0.65	MGD	AB - Annual Average
08/31/2023	EFD-1	Flow	0.187	Report	MGD	MK - Monthly Average
07/31/2023	EFD-1	Flow	0.282	0.65	MGD	AB - Annual Average
07/31/2023	EFD-1	Flow	0.169	Report	MGD	MK - Monthly Average
06/30/2023	EFD-1	Flow	0.294	0.65	MGD	AB - Annual Average
06/30/2023	EFD-1	Flow	0.175	Report	MGD	MK - Monthly Average
05/31/2023	EFD-1	Flow	0.293	0.65	MGD	AB - Annual Average
05/31/2023	EFD-1	Flow	0.177	Report	MGD	MK - Monthly Average
04/30/2023	EFD-1	Flow	0.295	0.65	MGD	AB - Annual Average
04/30/2023	EFD-1	Flow	0.288	Report	MGD	MK - Monthly Average
03/31/2023	EFD-1	Flow	0.282	0.65	MGD	AB - Annual Average
03/31/2023	EFD-1	Flow	0.438	Report	MGD	MK - Monthly Average
02/28/2023	EFD-1	Flow	0.274	0.65	MGD	AB - Annual Average
02/28/2023	EFD-1	Flow	0.213	Report	MGD	MK - Monthly Average
01/31/2023	EFD-1	Flow	0.289	0.65	MGD	AB - Annual Average
01/31/2023	EFD-1	Flow	0.166	Report	MGD	MK - Monthly Average
12/31/2022	EFD-1	Flow	0.31	0.65	MGD	AB - Annual Average
12/31/2022	EFD-1	Flow	0.229	Report	MGD	MK - Monthly Average

If applicable, Mean Flow for previous 12 months for REUSE outfall(s) (list date range including months):

Date	Monitoring Location	Description	Result	Limit	Units	Statistical Base
12/31/2023	EFA-2	Flow	0.379	Report	MGD	MK - Monthly Average
11/30/2023	EFA-2	Flow	0.398	Report	MGD	MK - Monthly Average
10/31/2023	EFA-2	Flow	0.321	Report	MGD	MK - Monthly Average
09/30/2023	EFA-2	Flow	0.339	Report	MGD	MK - Monthly Average
08/31/2023	EFA-2	Flow	0.36	Report	MGD	MK - Monthly Average
07/31/2023	EFA-2	Flow	0.409	Report	MGD	MK - Monthly Average
06/30/2023	EFA-2	Flow	0.334	Report	MGD	MK - Monthly Average
05/31/2023	EFA-2	Flow	0.321	Report	MGD	MK - Monthly Average
04/30/2023	EFA-2	Flow	0.184	Report	MGD	MK - Monthly Average
03/31/2023	EFA-2	Flow	0.01	Report	MGD	MK - Monthly Average
02/28/2023	EFA-2	Flow	0.249	Report	MGD	MK - Monthly Average
01/31/2023	EFA-2	Flow	0.297	Report	MGD	MK - Monthly Average
12/31/2022	EFA-2	Flow	0.231	Report	MGD	MK - Monthly Average

Description of type of Discharge:

☐ Continuous ☒ Intermittent ☐ Seasonal ☐ Rainfall Dependent

☐ Other, please specify:

Description of Sampling Location(s) - actual permit designation of permitted sampling point(s):

EFD-1: Sample point immediately after dichlorination, prior to discharge to St. Johns River

CAL-1: Calculated value

EFA-1: Immediately following disinfection

CAL-3: Calculated total mass load of total nitrogen or total phosphorus

SWI-1: Located at the point of discharge, samples to be collected directly in the boil

SWB-2: Located at LAT/ LONG of 30° 00’ 29” N, 81° 41’ 23” W at the approximate 6-foot depth

SWB-3: Located at LAT/ LONG of 30° 00’ 39” N, 81° 41’ 26” W at the approximate 6-foot depth

SWD-4: Located at LAT/ LONG of 30° 00’ 18” N, 81° 41’ 32” W in Governors Creek midpoint between the railroad track and U.S. 17

SWB-5: Located at LAT/ LONG of 30 00’ 29” N, 81 37’ 28” W at the approximate 6-foot depth (background station)

Description of Permitted Outfall(s):

Surface Water Discharge D-001: An existing 1.25 MGD AADF permitted discharge to the St. Johns River (Class III fresh waters – WBID 2213I) at Discharge Location (D-001) which is approximately 140 feet in length from the last junction manhole and discharges at a depth of approximately 4 feet. The effluent discharge to the St. Johns River will be used as the alternative/ backup disposal method.

The point of discharge is located approximately at latitude 30° 00’ 50” N, longitude 81° 41’ 20” W.

The interim permitted capacity of the surface discharge has been limited to 0.65 MGD AADF due to limited capacity of the wastewater treatment system to meet nutrient loading requirements to St. Johns River.

Upon completion and placing into service of the expansion/ improvements, the permitted capacity of surface water discharge is up to 1.25 MGD AADF.

Land Application R-001: An existing 0.75 MGD AADF permitted capacity slow-rate public access reuse system (R-001). The primary method of effluent disposal is the slow rate irrigation of reclaimed water on the Magnolia Point Golf and Country Club golf course as well as the North Grid service area that includes the future development, Edgewater Landing. Land application system R-001 is located approximately at latitude 30° 00’ 00” N, longitude 81° 42’ 41” W. This reuse system includes the following users:

User	User Type	Acreage (Acres)	Capacity (MGD)
Magnolia Golf and Country Club	Golf courses	151	0.75
North Grid (Edgewater Landing)	Irrigation	50	0.145
North Grid (Near-term future developments)	Irrigation	20	0.060

Description of Treatment Process (if multiple discharge points, include a detailed map or diagram of facility):

Existing facility: To operate an existing 0.75 million gallons per day (MGD) Annual Average Daily Flow (AADF) design capacity conventional nitrifying activated sludge wastewater treatment facility (WWTF) which consists of:

- One mechanical bar screen;
- Two surge tanks (named as surge tank # 1 and # 2) having respective capacities of 53,000 and 84,600 gallons;
- One biological treatment unit (BTU) consisting of an aeration zone baffled entry compartment and aeration basin containing 33,500 gallons and 365,000 gallons at a side-water depth of 15 feet, respectively;
- One center feed clarifier which is 45 feet in diameter with a side water depth of 15 feet resulting in a total volume of 178,500 gallons;
- One AquaDisk Discfilter (cloth media) filtration system equipped with an automatic backwashing;
- One 21,325-gallon baffled chlorine contact tank using liquid sodium hypochlorite as a disinfectant agent,
- One effluent pump station equipped with two 25 hp centrifugal pumps; each is rated at 1,300 gpm at 49 feet TDH;
- Two parallel digesters: The main digester (Digester # 1) has a side water depth of 12 feet, internal diameter of 45 feet, and a volume of 142,750 gallons; the second digester (Digester # 2) has a side water depth of 12 feet, internal diameter of 40 feet, and a volume of 112,800 gallons;
- Six on-site sludge drying beds with a total surface area of 15,000 ft^2.

The biosolids are dried in the drying beds and hauled to a Class I solid waste landfill.

The primary method of effluent disposal is reuse of reclaimed water via slow-rate public access irrigation system located on Magnolia Point Golf and Country Club golf course. Effluent discharge to the St. Johns River is used as a backup disposal method during wet weather conditions.

Modification/ expansion facility: The modification included expansion of the design capacity of the wastewater treatment system to 1.25 MGD annual average daily flow and to improve the treatment system to advanced wastewater treatment (AWT). The expansion and improvements will include the following constructions/modifications to the wastewater treatment system:

a. Pretreatment Unit Processes:
    - Installation of a 3-plane cylindrical mechanical screen with a stainless-steel perforated plate which will have a peak hydraulic design capacity of 7.50 MGD (5,208 gpm) with screen openings of ¼ inch (6 mm). The screening basket will have a minimal diameter of 47 inches and will be located in a 4' 2" wide x 5' 9" deep concrete channel. The screen unit consists of a screen basket, rotating rake, cleaning comb, concentric screw conveyor, dewatering and compaction section, drive assembly, and a pivoting support structure.

- Construction of a new manually cleaned bar screen which will have a peak hydraulic design capacity of 7.50 MGD (5,208 gpm) in parallel with the cylindrical mechanical screen. The manually cleaned bar screen will be in 6' by 5'9" bar rack with ¾ inch opening.

b. Biological Treatment Processes:
   - Construction of a new aerated oxidation ditch (Ovivo's two-stage Carrousel System). The biological treatment process is designed with 16 days overall STR, 22.9 hours minimum aerobic SRT for nitrification at minimum temperature; and 15 days aerobic SRT. The biological treatment train will have a volume of 1.195 million gallons (MG), a side water depth of 14 feet. The Carrousel Process consists of two vertically mounted, low speed surface aerators which will be 100 HP and will be equipped with VFDs and oxygen sensors to maintain a constant present DO level requirement.
   - Installation of aluminum sulfate feed system which includes two chemical metering pumps for feeding aluminum sulfate into the oxidation ditch with a capacity of 7.0 gph. The aluminum sulfate solution will be stored in two cross-linked, high-density polyethylene double-containment storage tanks, each having a capacity of 4,400 gallons. The aluminum sulfate solution supply should exceed 30 days demand.

c. Clarification System:
   - Construction of two new center-feed, 80-ft circular secondary clarifiers with spiral scraper type mechanism. Each clarifier will have a diameter of 80 ft, a surface area of 5,024 ft^2, a side water depth of 15 ft, hydraulic loading rate of 240 gpd/ft^2 at AADF of 125 MGD, 746 gpd/ft^2 at peak-hourly flow of 3.75 MGD, and solid loading rate of 11.2 $lb./day/ft^2$ at AADF and 33.2 $lb./day/ft^2$ at PHF. Each clarifier will be equipped with three 5-hp scum pumps each of which has a capacity of 250 gpm at hydraulic head of 25 ft.

d. Return Activated Sludge and Waste Activated Sludge Pump Station
   - Installation of two RAS/WAS pump station. RAS/WAS Pump Station will consist of three vertical no-clog 3.9-hp pumps. Each pump will have a capacity range from 300 to 1,000 gpm with pump speed range from 300 rpm to 700 rpm at operating head range from 5.5 ft to 10 ft.

e. Filtration System:
   - Installation of two new 6-disk cloth media filters. After. Each filter will have a filtration area of 53.8ft^2, a media depth of 3 mm to 5 mm. The hydraulic capacity and solids loading at AADF will be 1.36 gpm/ft^2 and 0.08 $lb./day/ft^2$ (all filters in services), respectively; the hydraulic capacity and solids loading at PHF will be 3.23 gpm/ft^2 (all filters in services) and 0.29 $lb./day/ft^2$, respectively.

f. Chlorine Disinfection System:
   - Construction of a new 0.125-million-gallon chlorine contact chamber which will have two equal-sized isolatable compartments. The CCC will have ratio of length to width of 59 to 1, ratio depth to width of 1.6 to 1, side water depth at PHF of 7 ft and a minimum free board of 0.65 ft.
   - Sodium hypochlorite solution will be utilized for disinfection, and sodium bisulfite solution will be utilized for dichlorination. Two chemical metering pumps with a capacity of 23.0 gph which will allow for 7.0 mg/L dosage at a final design phase 9.0 MGD PHF will utilize to feed sodium hypochlorite solution at the filter effluent pipe upstream of the CCC. Two additional chemical metering pumps (pre-filter metering pumps) with a capacity of 23.0 gph will be utilized to feed sodium hypochlorite solution ahead of the filters. The sodium hypochlorite solution will be stored in two cross-linked, high-density polyethylene double-containment storage tanks, each having a capacity of 4,400 gallons. The tanks will be located under a metal roof. The sodium

chlorite solution supply should exceed 30 days demand.

- Dechlorination system will consist of two chemical metering pumps with a capacity of 1.6 gph which will allow dichlorination of up to 1.5 mg/L chlorine residual at final design phase of 9.0 MGD PHF. The sodium bisulfite solution will be stored in two cross-linked, high-density polyethylene double-containment storage tanks, each having a capacity of 2,500 gallons. The tanks will be located under a metal roof. The sodium chlorite solution supply should exceed 30 days demand.

g. Effluent Pump Station, Reclaimed Water Transfer Pump Station and Reclaimed Water Storage:
   - Installation of an effluent pump station which includes two 40-hp vertical turbine pumps, located in a wet-well at the end the chlorine contact chamber. Each pump will have a hydraulic capacity of 2,600 gpm at 55 feet TDH for conveying of reclaimed water to the ground storage tank. Each pump will be equipped with a VFD and will be flow paced based on maintaining a pre-set level in the wet-well.
   - Construction of a reclaimed water storage system which will consist of a pre-stressed dome-top, 80-feet diameter ground storage tank with a 33-feet side water depth (i.e., the ground storage tank will provide 1.24 million gallons storage capacity).
   - Installation of a reclaimed water reuse pump station which includes two 75-hp split case pressure-controlled pumps and a 10,000-gal hydrotank. Each pump will have a hydraulic capacity of 1,400 gpm for conveying of reclaimed water from the ground storage tank to the reuse sites.

h. Return Pump Station:
   - Installation of a return. In-plant pump station which includes two 7.5-hp submersible duplex variety pumps. Each pump will have a hydraulic capacity of 400 gpm at 42 feet TDH. Each pump will be equipped with a VFD.

i. Reclaimed Water Distribution Pump Station:
   - Installation of two new 2,500-gpm reuse pumps which will replace the two existing 150-gpm reuse pumps. Upon completion of the installation, there will be 4 reuse pumps (2 existing 1,000 gpm and two new 2,500 gpm), which will provide a capacity of 6.5 MGD.

j. Aerobic Digestion Facilities:
   - There is no construction of the aerobic digester facilities. The two-existing concrete aerobic digesters remain with submersible aerator and decant valving improvements.

k. Outfall D-001:
   - There is no modification of the Outfall structure. The existing outfall with a design discharge capacity of 1.25 MGD AADF will remain.

Upon completion and placing into service of the expansion/improvement, the permitted treatment capacity of the City Green Cove Springs – Harbor Road WWTF is 1.25 MGD AADF.

The primary method disposal of effluent/reclaimed water is reused via slow-rate public access irrigation system. The surface water discharge (discharge to St. Johns River) is used as an alternative disposal method. The domestic biosolids are either transported to a DEP-permitted WWTFs or BMFs for further treatment and final disposal, or disposal on a Class I landfill.

PART I: Continued

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

			Effluent Limitations		**Monitoring Requirements**			
Parameter	**Units**	**Max/ Min**	**Limit**	**Statistical Basis**	**Frequency of Analysis**	**Sample Type**	**Monitoring Site Number**	**Notes**
Flow, Surface Water Discharge (***Prior to Expansion***)	MGD	Max	0.65	Annual Average	5 Days/Week	Recording Flow Meter with Totalizer	EFD-1	See I.A.4
		Max	Report	Monthly Average				
Flow, Total Volume (from the Outfall D-001)	Mgal/ month	Max	Report	Monthly Average	Monthly	Calculated	CAL-1	
BOD, Carbonaceous 5- day, 20C	mg/L	Max	20.0	Annual Average	Weekly	8-hr FPC	EFD-1	
		Max	25.0	Monthly Average				
		Max	40.0	Weekly Average				
		Max	60.0	Single Sample				
CBOD, % Removal, 5-day	percent	Min	85	Monthly Average	Monthly	Calculated	CAL-1	See I.A.7
Solids, Total Suspended	mg/L	Max	20.0	Annual Average	Weekly	8-hr FPC	EFD-1	
		Max	30.0	Monthly Average				
		Max	45.0	Weekly Average				
		Max	60.0	Single Sample				
Solids, Total Suspended, % Removal	percent	Min	85	Monthly Average	Monthly	Calculated	CAL-1	See I.A.7

PART I: Continued

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

pH	s.u.	Min	6.0	Single Sample	5 Days/Week	Grab	EFD-1	
		Max	8.5	Single Sample				

			Effluent Limitations		**Monitoring Requirements**			
Parameter	**Units**	**Max/ Min**	**Limit**	**Statistical Basis**	**Frequency of Analysis**	**Sample Type**	**Monitoring Site Number**	**Notes**
Coliform, Fecal	#/100mL	Max	200	Annual Average	Weekly	Grab	EFD-1	See I.A.5
		Max	200	Monthly Geometric Mean				
		Max	800	Single Sample				
Chlorine, Total Residual (For Disinfection)	mg/L	Min	0.5	Single Sample	5 Days/Week	Grab	EFA-1	See I.A.6
Chlorine, Total Residual (For Dechlorination)	mg/L	Max	0.01	Single Sample	Weekly	Grab	EFD-1	
Oxygen, Dissolved (DO)	mg/L	Min	5.0	Single Sample	Daily; 24 hours *(during discharge)*	Grab	EFD-1	See I.A.8
Temperature (C), Water	Deg C	Max	Report	Single Sample	Weekly	Meter	EFD-1	
Nitrogen, Ammonia, Total (as N) (**Effluent**)	mg/L	Max	Report	Single Sample	Weekly	Grab	EFD-1	See I.A.11
Nitrogen, Ammonia, Total (as N) **(Limitation**)	mg/L	Max	Report	Single Sample	Weekly	Grab	CAL-1	See I.A.11
Nitrogen, Ammonia, Total (as N) (**Compliance**)	mg/L	Max	Report	Single Sample	Weekly	Grab	CAL-1	See I.A.11

PART I: Continued								
List current Effluent Limits of Outfall(s) to be Sampled: This should include any AO or CO limits the facility may be under (Leave cell blank if not applicable)								
Nitrogen, Total, (as N)	mg/L	Max	Report	Annual Average	Weekly	8-hr FPC	EFD-1	
		Max	Report	Monthly Average				
		Max	Report	Single Sample				
Nitrogen, Total Load (as N)	lb/yr	Max	Report	Annual Total	Monthly	Calculated	CAL-3	See I.A.9
	lb/month	Max	Report	Monthly Total				
Phosphorus, Total (as P)	mg/L	Max	Report	Annual Average	Weekly	8-hr FPC	EFD-1	
		Max	Report	Monthly Average				
		Max	Report	Single Sample				

		Effluent Limitations			**Monitoring Requirements**			
Parameter	**Units**	**Max/ Min**	**Limit**	**Statistical Basis**	**Frequency of Analysis**	**Sample Type**	**Monitoring Site Number**	**Notes**
Phosphorus, Total Load (as P)	lb/yr	Max	Report	Annual Total	Monthly	Calculated	CAL-3	See I.A.9
	lb/month	Max	Report	Monthly Total				
Nitrite plus Nitrate, Total 1 det. (as N)	mg/L	Max	Report	Single Sample	Quarterly	8-hr FPC	EFD-1	See I.A.12
Nitrogen, Organic, Total (as N)	mg/L	Max	Report	Single Sample	Quarterly	8-hr FPC	EFD-1	See I.A.12
Phosphate, Ortho (as P)	mg/L	Max	Report	Single Sample	Quarterly	Grab-Filtered	EFD-1	See I.A.12
Nitrogen, Kjeldahl, Total (as N)	mg/L	Max	Report	Single Sample	Quarterly	8-hr FPC	EFD-1	See I.A.12

PART I: Continued								
List <u>current</u> Effluent Limits of Outfall(s) to be Sampled: This should include any AO or CO limits the facility may be under (Leave cell blank if not applicable)								
Oxygen, Dissolved (DO)	mg/L	Min	Report	Single Sample	Semi-Annually; twice per year	Meter	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
pH	s.u.	Max	Report	Single Sample	Semi-Annually; twice per year	Meter	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
Specific Conductance	umhos/ cm	Max	Report	Single Sample	Semi-Annually; twice per year	Meter	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
Coliform, Fecal	#/100mL	Max	Report	Single Sample	Semi-Annually; twice per year	Grab	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
			Effluent Limitations		**Monitoring Requirements**			
Parameter	**Units**	**Max/ Min**	**Limit**	**Statistical Basis**	**Frequency of Analysis**	**Sample Type**	**Monitoring Site Number**	**Notes**
Nitrite plus Nitrate, Total 1 det. (as N)	mg/L	Max	Report	Single Sample	Semi-Annually; twice per year	Grab	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 &

PART I: Continued								
List current Effluent Limits of Outfall(s) to be Sampled: This should include any AO or CO limits the facility may be under (Leave cell blank if not applicable)								
								I.A.12
Nitrogen, Kjeldahl, Total (as N)	mg/L	Max	Report	Single Sample	Semi-Annually; twice per year	Grab	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
Nitrogen, Ammonia, Total (as N)	mg/L	Max	Report	Single Sample	Semi-Annually; twice per year	Grab	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
Temperature (C), Water	Deg C	Max	Report	Single Sample	Semi-Annually; twice per year	Meter	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
Nitrogen, Total (as N)	mg/L	Max	Report	Single Sample	Semi-Annually; twice per year	Grab	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12

PART I: Continued								
List current Effluent Limits of Outfall(s) to be Sampled: This should include any AO or CO limits the facility may be under (Leave cell blank if not applicable)								
Phosphorus, Total (as P)	mg/L	Max	Report	Single Sample	Semi-Annually; twice per year	Grab	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12

			Effluent Limitations		**Monitoring Requirements**			
Parameter	**Units**	**Max/ Min**	**Limit**	**Statistical Basis**	**Frequency of Analysis**	**Sample Type**	**Monitoring Site Number**	**Notes**
Phosphate, Ortho (as P)	mg/L	Max	Report	Single Sample	Semi-Annually; twice per year	Grab-Filtered	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
Chlorophyll a	mg/L	Max	Report	Single Sample	Semi-Annually; twice per year	Grab	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
Alkalinity, Total (as CaCO3)	mg/L	Max	Report	Single Sample	Semi-Annually; twice per year	Grab	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
Tide Stage	ft	Max	Report	Single Sample	Semi-Annually; twice per year	Meter	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 &

PART I: Continued								
List current Effluent Limits of Outfall(s) to be Sampled: This should include any AO or CO limits the facility may be under (Leave cell blank if not applicable)								
								I.A.12
Acute Whole Effluent Toxicity, 96-hr LC50 (*Ceriodaphnia dubia*)	percent	Min	100	Single Sample	Annually	Grab	EFD-1	See I.A.13
Acute Whole Effluent Toxicity, 96-hr LC50 (*Cyprinella leedsi*)	percent	Min	100	Single Sample	Annually	Grab	EFD-1	See I.A.13

During the period beginning on completion and placing into service of the expansion facilities and lasting through the expiration date of this permit, the permittee is authorized to discharge effluent from Outfall D-001 to St. John's River (Class III freshwater, WBID 2213I). Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.9. :

			Effluent Limitations		**Monitoring Requirements**			
Parameter	**Units**	**Max/ Min**	**Limit**	**Statistical Basis**	**Frequency of Analysis**	**Sample Type**	**Monitoring Site Number**	**Notes**
Flow, Surface Water Discharge (***After Expansion***)	MGD	Max	1.25	Annual Average	5 Days/Week	Recording Flow Meter with Totalizer	EFD-1	See I.A.4
		Max	Report	Monthly Average				
Flow, Total Volume (from the Outfall D-001)	Mgal/ month	Max	Report	Monthly Average	Monthly	Calculated	CAL-1	
		Max	10.00	Annual Average				

BOD, Carbonaceous 5-day, 20C	mg/L	Max	13.00	Monthly Average	Weekly	16-hr FPC	EFD-1	
		Max	20.00	Weekly Average				
		Max	30.00	Single Sample				
Solids, Total Suspended	mg/L	Max	10.00	Annual Average	Weekly	16-hr FPC	EFD-1	
		Max	15.00	Monthly Average				
		Max	22.50	Weekly Average				
		Max	30.00	Single Sample				
pH	s.u.	Min	6.0	Single Sample	Continuous	Meter	EFD-1	
		Max	8.5	Single Sample				
Coliform, Fecal	#/100mL	Max	200	Annual Average	Weekly	Grab	EFD-1	See I.A.5
		Max	200	Monthly Geometric Mean				
		Max	800	Single Sample				

			Effluent Limitations		**Monitoring Requirements**			
Parameter	**Units**	**Max/ Min**	**Limit**	**Statistical Basis**	**Frequency of Analysis**	**Sample Type**	**Monitoring Site Number**	**Notes**
Escherichia coli Bacteria	#/100mL	Max	126	Monthly Geometric Mean	Weekly	Grab	EFD-1	See I.A.5
	#/100mL	Max	410	90th Percentile				
Chlorine, Total Residual (For Disinfection)	mg/L	Min	0.5	Single Sample				See I.A.6
Chlorine, Total Residual (For Dechlorination)	mg/L	Max	0.01	Single Sample	Daily 7Days/week	Grab	EFD-1	
Oxygen, Dissolved (DO)	mg/L	Min	5.0	Single Sample	Daily 7Days/week	Grab	EFD-1	See

								I.A.8
Temperature (C), Water	Deg C	Max	Report	Single Sample	Weekly	Meter	EFD-1	
Nitrogen, Ammonia, Total (as N) (**Effluent**)	mg/L	Max	Report	Single Sample	Weekly	Grab	EFD-1	See I.A.11
	mg/L	Max	Report	Monthly Average				
Nitrogen, Ammonia, Total (as N) (**Limit**)	mg/L	Max	Report	Single Sample	Weekly	Calculated	CAL – 1	See I.A.11
	mg/L	Max	Report	Monthly Average				
Nitrogen, Ammonia, Total (as N) (**Compliance**)	mg/L	Max	0.0	Single Sample	Weekly	Calculated	CAL – 1	See I.A.11
	mg/L	Max	0.0	Monthly Average				
Nitrogen, Total, (as N)	mg/L	Max	Report	Annual Average	Weekly	16-hr FPC	EFD-1	
		Max	Report	Monthly Average				
		Max	Report	Single Sample				
Nitrogen, Total Load (as N)	lb/yr	Max	Report	Annual Total	Monthly	Calculated	CAL-3	See I.A.9
	lb/month	Max	Report	Monthly Total				
Phosphorus, Total (as P)	mg/L	Max	Report	Annual Average	Weekly	16-hr FPC	EFD-1	
		Max	Report	Monthly Average				
		Max	Report	Single Sample				

			Effluent Limitations		**Monitoring Requirements**			
Parameter	**Units**	**Max/ Min**	**Limit**	**Statistical Basis**	**Frequency of Analysis**	**Sample Type**	**Monitoring Site Number**	**Notes**
Phosphorus, Total Load (as P)	lb/yr	Max	Report	Annual Total	Monthly	Calculated	CAL-3	See I.A.9
	lb/month	Max	Report	Monthly Total				
Nitrite plus Nitrate, Total 1 det. (as N)	mg/L	Max	Report	Single Sample	Quarterly	16-hr FPC	EFD-1	

Nitrogen, Organic, Total (as N)	mg/L	Max	Report	Single Sample	Quarterly	16-hr FPC	EFD-1	
Phosphate, Ortho (as P)	mg/L	Max	Report	Single Sample	Quarterly	Grab-Filtered	EFD-1	
Nitrogen, Kjeldahl, Total (as N)	mg/L	Max	Report	Single Sample	Quarterly	16-hr FPC	EFD-1	
Oxygen, Dissolved (DO)	mg/L	Min	Report	Single Sample	Semi-Annually; twice per year	Meter	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
pH	s.u.	Max	Report	Single Sample	Semi-Annually; twice per year	Meter	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
Specific Conductance	umhos/ cm	Max	Report	Single Sample	Semi-Annually; twice per year	Meter	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
Coliform, Fecal	#/100mL	Max	Report	Single Sample	Semi-Annually; twice per year	Grab	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12

			Effluent Limitations		**Monitoring Requirements**			
Parameter	**Units**	**Max/ Min**	**Limit**	**Statistical Basis**	**Frequency of Analysis**	**Sample Type**	**Monitoring Site Number**	**Notes**

E.Coli	#/100mL	Max	Report	Single Sample	Semi-Annually; twice per year	Grab	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
Nitrite plus Nitrate, Total 1 det. (as N)	mg/L	Max	Report	Single Sample	Semi-Annually; twice per year	Grab	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
Nitrogen, Kjeldahl, Total (as N)	mg/L	Max	Report	Single Sample	Semi-Annually; twice per year	Grab	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
Nitrogen, Ammonia, Total (as N)	lb/mth	Max	Report	Single Sample	Semi-Annually; twice per year	Grab	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
Temperature (C), Water	Deg C	Max	Report	Single Sample	Semi-Annually; twice per year	Meter	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
Nitrogen, Total (as N)	mg/L	Max	Report	Single Sample	Semi-Annually; twice per year	Grab	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
			Effluent Limitations		**Monitoring Requirements**			

Parameter	Units	Max/ Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Phosphorus, Total (as P)	mg/L	Max	Report	Single Sample	Semi-Annually; twice per year	Grab	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
Phosphate, Ortho (as P)	mg/L	Max	Report	Single Sample	Semi-Annually; twice per year	Grab-Filtered	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
Chlorophyll a	mg/L	Max	Report	Single Sample	Semi-Annually; twice per year	Grab	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
Alkalinity, Total (as CaCO3)	mg/L	Max	Report	Single Sample	Semi-Annually; twice per year	Grab	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
Tide Stage	ft	Max	Report	Single Sample	Semi-Annually; twice per year	Meter	SWI-1 SWB-2 SWB-3 SWD-4 SWB-5	See I.A.10 & I.A.12
Acute Whole Effluent Toxicity, 96-hr LC50 (*Ceriodaphnia dubia*)	percent	Min	100	Single Sample	Semi-Annually; twice per year	Grab	EFD-1	See I.A.3

Acute Whole Effluent Toxicity, 96-hr LC50 (*Cyprinella leedsi*)	percent	Min	100	Single Sample	Semi-Annually; twice per year	Grab	EFD-1	See I.A.3

PART I: Continued	
Receiving Waters: St. Johns River	Classification (indicate whether fresh or marine): Class III Fresh Water

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

1. The permittee shall comply with the following requirements to evaluate acute whole effluent toxicity of the discharge from outfall D-001.

   a. Effluent Limitation
      (1) In any routine or additional follow-up test for acute whole effluent toxicity, the 96-hour LC50 shall not be less than 100% effluent. [Rules 62-302.200(1), 62-302.500(1)(a)4., [62- 4.244(3)(a), and 62-4.241, F.A.C.]

   b. Monitoring Frequency
      (1) Routine toxicity tests shall be conducted annually, the first starting within one year of the most recent tests and lasting for the duration of this permit.

   c. Sampling Requirements
      (1) All tests shall be conducted on a single grab sample of final effluent.

   d. Test Requirements
      (1) Routine Tests: All routine tests shall be conducted using a control (0% effluent) and a minimum of five dilutions: 100%, 75%, 50%, 25%, and 12.5% effluent.
      (2) The permittee shall conduct 96-hour acute static renewal multi-concentration toxicity tests using the daphnid, *Ceriodaphnia dubia*, and the bannerfin shiner, *Cyprinella leedsi*, concurrently.
      (3) All test species, procedures and quality assurance criteria used shall be in accordance with Methods for Measuring Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, 5th Edition, EPA-821-R-02-012. Any deviation of the bioassay procedures outlined herein shall be submitted in writing to the Department for review and approval prior to use. In the event the above method is revised, the permittee shall conduct acute toxicity testing in accordance with the revised method.
      (4) The control water and dilution water shall be moderately hard water as described in EPA- 821-R-02-012, Table 7.

   e. Quality Assurance Requirements
      (1) A standard reference toxicant (SRT) quality assurance (QA) acute toxicity test shall be conducted with each species used in the required toxicity tests either concurrently or initiated no more than 30 days before the date of each routine or additional follow-up test conducted. Additionally, the SRT test must be conducted concurrently if the test organisms are obtained

      from outside the test laboratory unless the test organism supplier provides control chart data from at least the last five monthly acute toxicity tests using the same reference toxicant and test conditions. If the organism supplier provides the required SRT data, the organism supplier's SRT data and the test laboratory's monthly SRT-QA data shall be included in the reports for each companion routine or additional follow-up test required.

(2) If the mortality in the control (0% effluent) exceeds 10% for either species in any test, the test for that species (including the control) shall be invalidated and the test repeated. The repeat test shall begin within 14 days after the last day of the invalid test.
(3) If 100% mortality occurs in all effluent concentrations for either species prior to the end of any test and the control mortality is less than 10% at that time, the test (including the control) for that species shall be terminated with the conclusion that the test fails and constitutes non- compliance.
(4) Routine and additional follow-up tests shall be evaluated for acceptability based on the concentration-response relationship, as required by EPA-821-R-02-012, Section 12.2.6.2., and included with the bioassay laboratory reports.

f. Reporting Requirements
(1) Results from all required tests shall be reported on the monthly Discharge Monitoring Report (DMR) as the calculated LC50 for each test species.
(2) A bioassay laboratory report for the routine test shall be prepared according to EPA-821-R- 02-012, Section 12, Report Preparation and Test Review, and e-mailed or mailed to the Department at the address below within 30 days after the last day of the test.
(3) For additional follow-up tests, a single bioassay laboratory report shall be prepared according to EPA-821-R-02-012, Section 12, and mailed or e-mailed within 30 days after the last day of the second valid additional follow-up test.
(4) Data for invalid tests shall be included in the bioassay laboratory report for the repeat test.
(5) The same bioassay data shall not be reported as the results of more than one test.
(6) All bioassay laboratory reports shall be mailed or *e-mailed* within 30 days to Jacksonville *only*: Florida Department of Environmental Protection
Northeast District Office – Wastewater
Compliance 8800 Baymeadows Way
West, Suite 100
Jacksonville, Florida 32256

g. Test Failures
(1) A test fails when the test results do not meet the limits in 13.a.(1).
(2) Additional Follow-up Tests:
(a) If a routine test does not meet the acute toxicity limitation in 13.a.(1) above, the permittee shall notify the Department at the address above within 21 days after the last day of the failed routine test and conduct two additional follow-up tests on each species that failed the test in accordance with Error! Reference source not found..d.
(b) The first test shall be initiated within 28 days after the last day of the failed routine test. The remaining additional follow-up tests shall be conducted weekly thereafter until a total of two valid additional follow-up tests are completed.
(c) The additional follow-up tests shall be conducted using a

control (0% effluent) and a minimum of five dilutions: 100%, 75%, 50%, 25%, and 12.5% effluent. The permittee may modify the dilution series in the additional follow-up tests to more accurately bracket the toxicity such that at least two dilutions above and two dilutions below the target concentration and a control are run. All test results shall be statistically analyzed according to the procedures in EPA-821-R-02-012.

(3) In the event of three valid test failures (whether routine or additional follow-up tests) within a 12-month period, the permittee shall notify the Department within 21 days after the last day of the third test failure.

(a) The permittee shall submit a plan for correction of the effluent toxicity within 60 days after the last day of the third test failure.
(b) The Department shall review and approve the plan before initiation.
(c) The plan shall be initiated within 30 days following the Department's written approval of the plan.
(d) Progress reports shall be submitted quarterly to the Department at the address above.
(e) During the implementation of the plan, the permittee shall conduct quarterly routine whole effluent toxicity tests in accordance with 13.d. Additional follow-up tests are not required while the plan is in progress. Following completion or termination of the plan, the frequency of monitoring for routine and additional follow-up tests shall return to the schedule established in Error! Reference source not found..b.(1). If a routine test is invalid according to the acceptance criteria in EPA-821-R-02-012, a repeat test shall be initiated within 14 days after the last day of the invalid routine test.
(f) Upon completion of four consecutive quarterly valid routine tests that demonstrate compliance with the effluent limitation in 13.a.(1) above, the permittee may submit a written request to the Department to terminate the plan. The plan shall be terminated upon written verification by the Department that the facility has passed at least four consecutive quarterly valid routine whole effluent toxicity tests.
(g) If a test within the sequence of the four is deemed invalid, but is replaced by a repeat valid test initiated within 14 days after the last day of the invalid test, the invalid test will not be counted against the requirement for four consecutive quarterly valid routine tests for the purpose of terminating the plan.

(4) The additional follow-up testing and the plan do not preclude the Department taking enforcement action for whole effluent toxicity failures.

Administrative or Consent Orders (date executed, specific requirements, interim limit dates-if applicable, etc.): N/A
Facility Mixing Zone Details (if applicable): N/A
List Permit Violations (DMR data) and plant upsets that occurred at the plant within the last year:

Date	Monitoring Location	Description	Result	Limit	Units	Statistical Base
12/31/2022	MWC-3	pH	4.9	6.5-8.5	s.u.	RG - RANGE
12/31/2022	MWC-4	pH	5.7	6.5-8.5	s.u.	RG - RANGE
9/30/2022	EFB-1	Solids, Total Suspended	7.6	5	mg/L	MB - Maximum
9/30/2022	CAL-1	Coliform, Fecal, % less than detection	52.9	75	percent	TM - Minimum Total Monthly
9/30/2022	MWC-3	pH	4.6	6.5-8.5	s.u.	RG - RANGE
9/30/2022	MWC-4	pH	5.4	6.5-8.5	s.u.	RG - RANGE
7/31/2022	CAL-1	Coliform, Fecal, % less than detection	50	75	percent	TM - Minimum Total Monthly
6/30/2022	EFB-1	Solids, Total Suspended	7.7	5	mg/L	MB - Maximum
6/30/2022	MWC-3	pH	5.1	6.5-8.5	s.u.	RG - RANGE
6/30/2022	MWC-4	pH	5.5	6.5-8.5	s.u.	RG - RANGE
5/31/2022	CAL-1	Nitrogen, Ammonia, Total (as N)	1.28	0	mg/L	MK - Monthly Average
5/31/2022	CAL-1	Nitrogen, Ammonia, Total (as N)	3.6	0	mg/L	MB - Maximum
5/31/2022	CAL-1	Coliform, Fecal, % less than detection	59	75	percent	TM - Minimum Total Monthly
3/31/2022	CAL-1	Nitrogen, Ammonia, Total (as N)	3.96	0	mg/L	MB - Maximum
3/31/2022	CAL-1	Nitrogen, Ammonia, Total (as N)	1.64	0	mg/L	MK - Monthly Average
3/31/2022	MWC-3	pH	3.82	6.5-8.5	s.u.	RG - RANGE
3/31/2022	MWC-4	pH	4.55	6.5-8.5	s.u.	RG - RANGE
1/31/2022	EFA-2	Coliform, Fecal	29	25	#/100 mL	MB - Maximum
1/31/2022	CAL-1	Coliform, Fecal, % less than detection	5.9	75	percent	TM - Minimum Total Monthly

Describe previous FYI and WQBEL study:

i. Water Quality Based Effluent Limitation (WQBEL)

In order to protect existing water quality and preserve the designated beneficial use of Florida's surface waters, the discharge permits shall be conditioned such that the discharge will meet established Surface Water Quality Standards. The Florida State Surface Water Quality Standards (Chapter 62-302, FAC) is a state regulation designed to protect the beneficial uses of the surface waters of the state.

(i) Heavy Metals: The Department conducted sampling inspection on April 22, 2013. Sample result show that concentrations of arsenic, silver, and cadmium were undetectable. Copper, lead, aluminum, and chromium were detected in the effluent at levels that comply with Class III marine water quality criteria (62-302.530, F.A.C.).

(ii) Silver: Silver is listed on ,303(d) List, in WBID 2213I, but it is not listed in WBID 2213H and 2213J. Therefore, the discharge needs to be evaluated for silver.

Results of the Department 3rd Year Sampling Inspection indicate that concentration of silver in the effluent sample was not detectable. In addition, the facility receives mostly domestic wastewater with a small quantity of landfill leachate. There is no evidence to show that the silver concentration in the effluent would impact to the silver level of waterbody. Effluent samples for silver from 2014 through 2018 were less than 0.2 mg/L. Therefore, the permittee is not required to monitor for this parameter.

(iii) Dissolved Oxygen: Due to the fact that dissolved oxygen (DO) is a parameter of concern, the permit shall include the following requirement, effluent dissolved oxygen shall meet the Class III freshwater quality criteria, where no more than 10 percent of the daily average percent dissolved oxygen saturation values shall be below 34 percent in the Northeast and Big Bend bioregions. [62-302.533(1)(a)(3)]

To determine a concentration limit for DO criteria, the nearest STORET Station with data was reviewed to get the following data.

Parameter (STORET Station 20030033)	Average	Median	Mode	Max	Min
BOD, Biochemical oxygen demand (mg/L)	2.53	2.5	1.8	3.6	1.6
Dissolved oxygen (DO) (mg/L)	6.54	5.95	4.6	9.5	4.4
Nitrogen, Kjeldahl (mg/L)	1.15	1.2	1.3	1.6	0.69
Temperature, water(C)	24.43	25.8	#N/A	31.1	14.4

** Data in the STORET table is from June 2002 to November 2007*

A comparison of historic STROET data (Temperature and DO) to recent ambient samples collected by the City of Green Cove Springs, indicate very similar results. Historic data can be used to compare ambient conditions to the DO criteria. The lowest ambient temperature was used to be conservative in the DO analysis.

Summary of Ambient DO-all GCS sample locations: October 2014-December 2018

Parameter	**Avg.**	**Mode**	**Median**	**Max**	**Stand Dev.**	**Skew**	**95th Per.**	**Min**
Dissolved Oxygen, (mg/L)	6.46	6.20	6.40	7.87	0.84	-0.45	7.61	4.6
T (o C)	25.73	29.80	25.90	30.50	3.83	-0.60	30.20	17.1

Assuming the worst case, using the lowest temperature from the STORET data to get the Maximum DO for the water, when multiplied will give the highest percent saturation that the facility must meet at all times.

Maximum dissolved oxygen concentrates vary with temperature			
Temperature (°C)	DO (mg/L)	Temperature (°C)	DO (mg/L)
0	14.6	23	8.56
1	14.19	24	8.4
2	13.81	25	8.24
3	13.44	26	8.09
4	13.09	27	7.95
5	12.75	28	7.81
6	12.43	29	7.67
7	12.12	30	7.54
8	11.83	31	7.41
9	11.55	32	7.28
10	11.27	33	7.16
11	11.01	34	7.16

Maximum dissolved oxygen concentrates vary with temperature			
Temperature (°C)	DO (mg/L)	Temperature (°C)	DO (mg/L)
12	10.76	35	6.93

13	10.52	36	6.82
14	10.29	37	6.71
15	10.07	38	6.61
16	9.85	39	6.51
17	9.65	40	6.41
18	9.45	41	6.41
19	9.26	42	6.22
20	9.07	43	6.13
21	8.9	44	6.04
22	8.72	45	5.95
http://water.epa.gov/type/rsl/monitoring/vms52.cfm			

Since the Critical DO Concentration (4.06 mg/L) is above the DO Minimum Concentration (3.499 mg/L) there is enough reasonable assurance the DO permit limit of 5.0 mg/L and limits for CBOD5 and TKN will not cause the percent saturation to fall below 34 percent at any time.

Data reported in the DMRs from August 2014 through January 2019 show the average and minimum concentration of DO in the effluent samples before discharged from D-001 were 6.42 mg/L and 4.60 mg/L, respectively.

There is no evidence to show that the effluent would impact the DO level of the waterbody. Therefore, the facility is not required to increase DO level in the effluent or change the limit of CBOD5 (Limits for nutrients will be discussed in the TMDL requirements).

(i) Total Maximum Daily Load of Total Nitrogen and Total Phosphorus:

Discharge from the WWTF is subject the effluent limitation for annual mass load of the total nitrogen and total phosphorous (i.e., the sum of monthly mass loading of total nitrogen or total phosphorous for each month started from the first day of the second month following permit issuance through the last day of the 12th month period (rolling 12 month period)) discharged from the WWTF to the Lower St. Johns River basin (WBID 2213I). The total waste allocation of total nitrogen and total phosphorous for the WWTF is 5,863 kg/year and 1,852 kg/yr, respectively.

The permittee, City of Green Cove Springs, may not meet the waste allocation limits of TN or TP, but shall meet the aggregate cap through collectively managing the total nitrogen loads and total phosphorous loads of each individual City of Green Cove Springs's facilities listed the City of Green Cove Springs - Aggregated Total Nitrogen and Total Phosphorous (Permit ID: FL0635618).

- Year-to-date Annually Mass Load (AL):

The annual mass load is computed using a rolling twelve (12) – month period. The calculation shall be the sum of the

twelve most recent monthly mass loading of total nitrogen (or total phosphorus) starting from the second month following permit issuance month.

iv. Whole Effluent Toxicity: In order to provide reasonable assurance that the discharge will not adversely affect the designated use of the receiving water, whole effluent toxicity testing is required.

Test date & Lab	**C. dubia;** pass / fail routine / additional / LC50	***C. leedsi***; pass / fail routine / additional / LC50
February 4, 2015	CD pass LC50 > 100%.	CL pass LC50 > 100%.
January 2016	CD pass LC50 > 100%.	CL pass LC50 > 100%.
February 2017	CD pass LC50 > 100%.	CL pass LC50 > 100%.
February 2018	CD pass LC50 > 100%.	CL pass LC50 > 100%.

v. In-Stream Monitoring: The Permittee is required to conduct regular monitoring of the segment of the St. Johns River near the outfall for maintaining data on the impact of the discharge to the water quality of the surface water body which is a part of an on-going Water Quality Based Effluent Limitation (WQBEL) study for the river. If a new WQBEL is developed for the facility which requires the effluent limit to be revised, the permittee shall be informed in writing by a notice of permit revision.

- The LSJR is that portion of the St. Johns River that flows between the mouth of the Ocklawaha River, its largest tributary, and the Atlantic Ocean, encompassing a 2,750-square-mile (mi^2) drainage area. The LSJR, WBID 2213D is classified as Class III – predominately Marine waterbody, with a designated use of recreation, propagation, and the maintenance of a healthy, well-balanced population of fish and wildlife.

iv. The TMDL for the LSJR was adopted by the Department on June 3, 2008, and the Lower St. Johns River Basin Management Action Plan (BMAP) adopted on October 10, 2008.

v. Statewide mercury TMDL has been established and adopted [62-304.900, FAC].

- Impairments: 303 (d) Lists Impaired Water of the segments of immediate, north, and south of the outfall are summarized below**:**

Basin	St Johns River above Piney Point *(Basin North – Downstream of Outfall)*	St. Johns River *(Basin Immediate Outfall)*	*(Basin South of Outfall)*
WBID	2213H	2213I	2213J

303(d) List	EPA 303(d)*	FDEP 303(d)**	EPA 303(d)*	FDEP 303(d)**	EPA 303(d)*	FDEP 303(d)**
Impaired Parameter	Chlorophyll a, Mercury (in fish tissue)	Mercury (in fish tissue)	Thallium Mercury (in fish tissue)	Silver, Mercury (in fish tissue)	-	Mercury (in fish tissue)

Note (*): *US EPA Water Quality Assessment Status for Reporting Year 2010*

(**): *Comprehensive Verified List August 1, 2018; Updated with Group 5 - Cycle 3*

iv. Conclusion:

The review included in-stream monitoring data, discharge monitoring reports, the Department's year 2016 305(b) report, EPA 303(d) report, and the Department's compliance sampling inspection reports. In addition, the DEP report was reviewed: Integrated Water Quality Assessment for Florida: 2018 Section 303(d), 305(b) and 314 Report and Listing Update, revised March 12, 2019. A TMDL for this water-body has been developed for nutrients. Specific allocations for the point source discharger have been established. This facility has provided reasonable assurance that the discharge will not adversely affect the designated use of the receiving water. Third year inspection data, as well as all other available data, have been evaluated in accordance with the Department's reasonable assurance procedures to ensure that no limits other than those included in this permit are needed to maintain Florida water quality standards.

Describe previous or current Enforcement Actions (including WLs):

WL-24-004 issued on January 19, 2024, regarding fecal coliform and Total Suspended Solids exceedances. The Department has received a response and is arranging for a meeting with facility representatives.

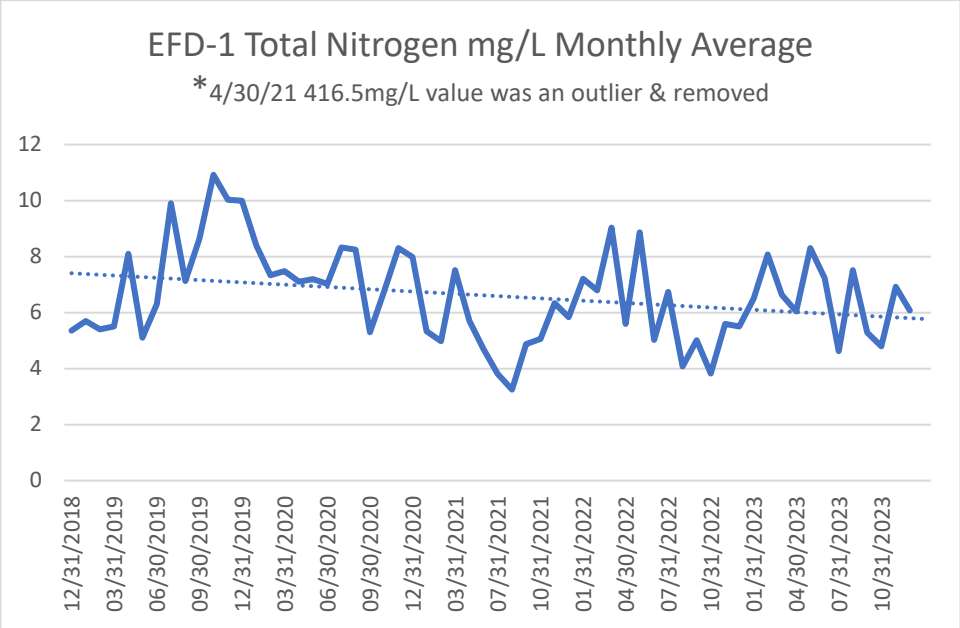
Describe any violations or problems noted in previous inspection:

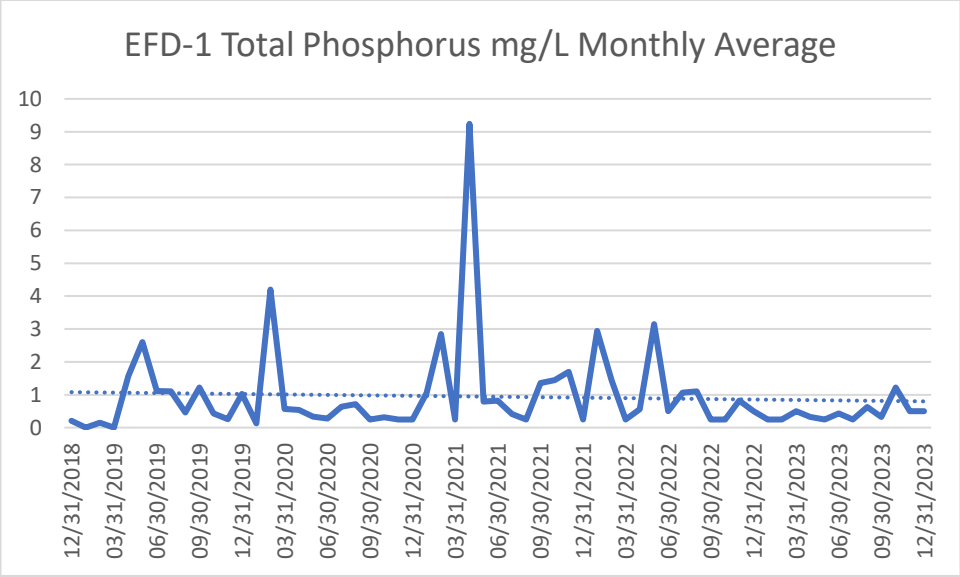
- Food found in sample refrigerator
- 2018 Pathogen Monitoring Report was not submitted
- Permit limits for FC% Less Than Detection and TSS were violated
- Reuse advisory signs were missing at the Magnolia Golf and Country Club

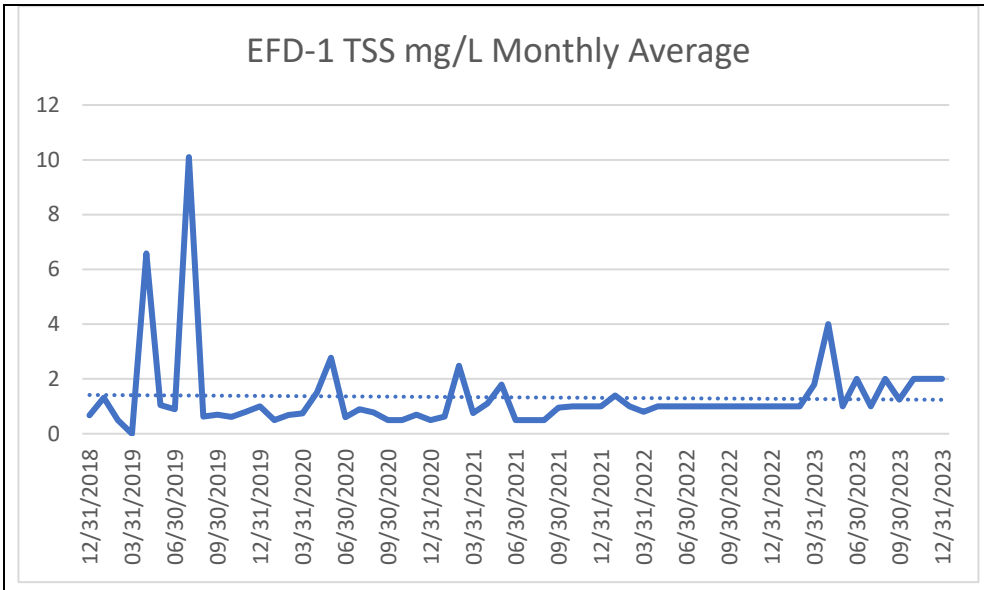
Discuss whether DMR trends within previous five years are improving or declining:

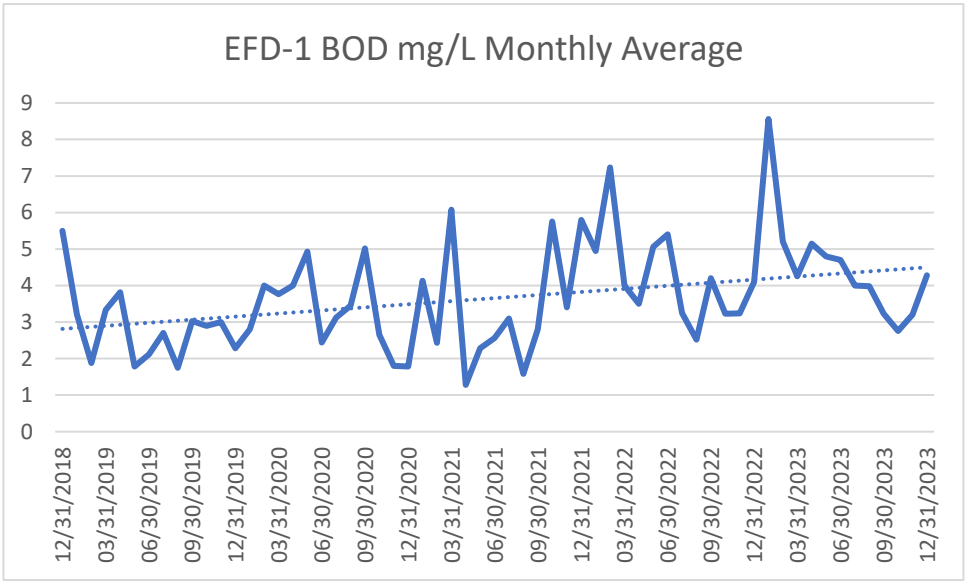
It appears overall in the last five years trends are slightly declining.

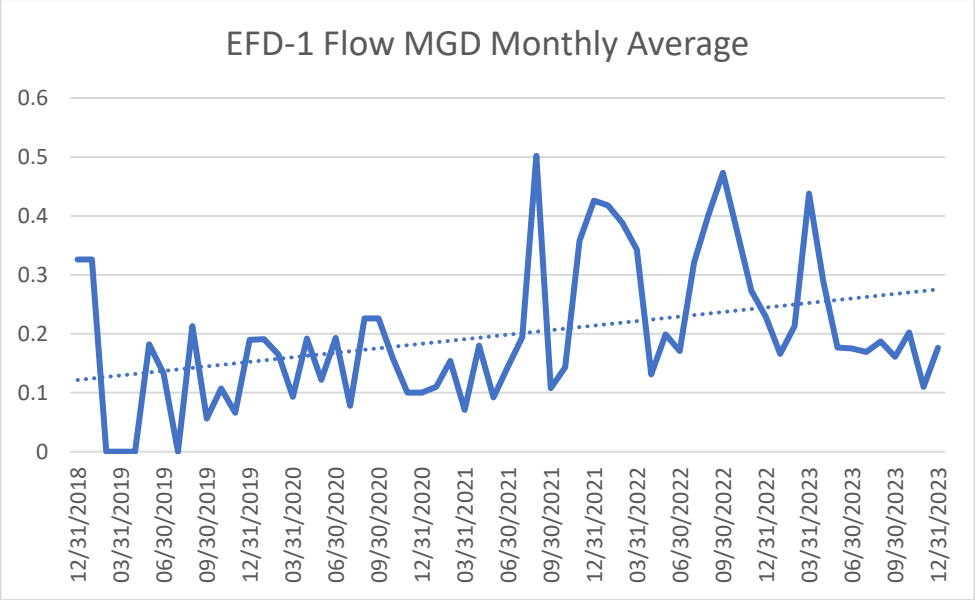
Below are graphs of a few parameters indicating the trend over the last five years.






EFD-1 TSS mg/L Monthly Average
12
10
8
6
4
2
0
12/31/2018
03/31/2019
06/30/2019
09/30/2019
12/31/2019
03/31/2020
06/30/2020
09/30/2020
12/31/2020
03/31/2021
06/30/2021
09/30/2021
12/31/2021
03/31/2022
06/30/2022
09/30/2022
12/31/2022
03/31/2023
06/30/2023
09/30/2023
12/31/2023


EFD-1 BOD mg/L Monthly Average
9
8
7
6
5
4
3
2
1
0
12/31/2018
03/31/2019
06/30/2019
09/30/2019
12/31/2019
03/31/2020
06/30/2020
09/30/2020
12/31/2020
03/31/2021
06/30/2021
09/30/2021
12/31/2021
03/31/2022
06/30/2022
09/30/2022
12/31/2022
03/31/2023
06/30/2023
09/30/2023
12/31/2023



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

N/A

Appendix B. Explanations of Measurements

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

- **Chemical Analyses of the Effluent**

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

- **Toxicity Bioassays**

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

- **Bacteriological Testing**

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

- **Algal Growth Potential (AGP)**

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

  The concentration of nutrients in a water sample may be used to calculate the expected yield of AGP under the assumption that other required nutrients (e.g. silicon, micronutrients) are present in excess (Miller *et al*. 1978). The expected amount of production is calculated as 38 times the total soluble inorganic nitrogen (nitrate and nitrite plus ammonia) under nitrogen limitation or 430 times the ortho-phosphate (OP) concentration under phosphorus limitation with an error of ± 20%. When the ratio of nitrogen to phosphorus (N: P) is less than 10:1, nitrogen limitation of algal production is likely. When the N: P ratio is 20:1 or greater,

phosphorus limitation is likely (USEPA 2000). For ratios in-between, co-limitation may occur. Production of lower biomass than expected may be evidence of growth inhibition related to toxic compounds present in the water sample tested and may constitute an exceedance of Subsection 62-302.530(62), F.A.C.

- **Chlorophyll *a* Content**

  Chlorophyll *a* content is an estimate of algal biomass. High algal biomass implies nutrient stress (Stevenson and Bahls 1999) and 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.

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

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

Appendix C. Chain of Custody

Request Number: RQ-2024-01-29-38

FYI3 Green Cove Springs - Harbor Road WWTF(FL0020915)

Customer: NE-DIST

Project ID: FYI3

Florida Department of Environmental Protection
Central Laboratory Submittal Form

Page 1 of 4
last revised Jan 25, 2018

Requester: Benjamin Nomann
Collected By: CL TA
Field Report Prepared By: Conor Lucey
Sampling Agency: FDEP NED

Green Cove Springs - Harbor Road WWTF
FYI13
FL0020915
EFD-1
Bottle Group A (Grabs)

Comp / Grab | Collection (comp begin or grab) Date 02/12/2024 Time 12:20 Eastern Central | Composite end Date Time | Bottle Group(s) (See pg 2): A
Matrix (type, e.g., Salt, Fresh, etc): WW | Diss. Oxygen 7.84 mg/L 91.9 % sat | Total Res. Chlorine (mg/L) 0
Temp (C) 22.8 | pH 6.78 | Sample Depth ft m | Sp. Conductance (umho/cm) 636
Latitude dd dms | Longitude dd dms | Salinity (ppt) | Comments

Green Cove Springs - Harbor Road WWTF
FYI3
FL0020915
Bottle Group C-Field blanks

Comp / Grab | Collection (comp begin or grab) Date 2/12/24 Time 13:60 Eastern Central | Composite end Date Time | Bottle Group(s): C
Matrix (type, e.g., Salt, Fresh, etc): DI | Diss. Oxygen mg/L % sat | Total Res. Chlorine (mg/L)
Temp (C) | pH | Sample Depth ft m | Sp. Conductance (umho/cm)
Latitude dd dms | Longitude dd dms | Salinity (ppt) | Comments

Green Cove Springs - Harbor Road WWTF
FYI3
FL0020915
Bottle Group D-Equipment Blanks

Comp / Grab | Collection (comp begin or grab) Date 2/12/24 Time 1316 Eastern Central | Composite end Date Time | Bottle Group(s): D
Matrix (type, e.g., Salt, Fresh, etc): DI | Diss. Oxygen mg/L % sat | Total Res. Chlorine (mg/L)
Temp (C) | pH | Sample Depth ft m | Sp. Conductance (umho/cm)
Latitude dd dms | Longitude dd dms | Salinity (ppt) | Comments

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

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
Conor Lucey	2/12/24 14:30	Fed EX	3	A.SHAIK	02/13/2024 / 08:50

02.13.24 0904

Request Number: RQ-2024-01-29-38

FYI3 Green Cove Springs - Harbor Road WWTF(FL0020915)

Customer: NE-DIST

Project ID: FYI3

Florida Department of Environmental Protection
Central Laboratory Submittal Form

Page 1 of 4

last revised Jan 25, 2018

Requester: Benjamin Nomann

Field Report Prepared By: Conor Lucy

Collected By: Conor Lucy

Sampling Agency: FDEP NEDS

Loca	Green Cove Springs - Harbor Road WWTF	☒ Comp ☐ Grab	Collection (comp begin or grab) Date 2/14/24 Time 20:00	Eastern Central	Composite end Date 2/15/24 Time 10:05				Bottle Group(s) (See pg 2)
Field	FYI3	Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)			B
WIN	FL0020915	Temp (C)	pH	Sample Depth	☐ ft ☐ m	Sp. Conductance (umho/cm)			
	EFA-1	Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments	Issues with auto sampler Possible intermittent sampling			
	Bottle Group B-Effluent (Comp)	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
	2/15/24 7:00pm	Fed EX	1	TL	2/16/24 @ 08:46

DIVERSIFIED ENVIRONMENTAL LABORATORIES, INC.

CHAIN OF CUSTODY RECORD

Project Number: (Lab Use Only) 240212.03

3653 Regent Boulevard, Suite # 509
Jacksonville, FL 32224
P. (904) 807-9625 E. info@delilab.com
F. (904) 807-9627

Page 1 of 1

Company Name: Florida Department of Environmental Protection
Address: 8800 Baymeadows Way West
City: Jacksonville State: FL Zip: 32256
Attn. Dep-overflowmicro@dep.state.fl.us
Tel. E-mail or Fax
Project Name: green cove FyI 3
Project Number: 2024-
Project Location:
Sampler Name/Signature: Conor Lucy

Transfer #	Sample # (Lab Use Only)	Sample Identification	Date Sampled	Time Sampled	Sample Matrix Code	Specific Cond. (Field)	Comp	Grab	E. Coli - Quantitray	Enterococci - Quantitray	Coliform, Fecal - MF 3 Dilutions
1	G80220	green cove 2-12-24	2/12/24	12:20	WW			X			X
2											
3											
4											
5											
6											
7											
8											
9											
10											

Container Information (Qty, Size, & Type): 250 mLP | 250 mLP | 250 mLP
Container Preservation Codes: 6 | 6 | 6
Parameters: E. Coli - Quantitray | Enterococci - Quantitray | Coliform, Fecal - MF 3 Dilutions

Sample Matrix Codes:
A. Air P. Petroleum
B. Bulk S. Soil/Sludge
W. Wipe O. Other _____
PW. Potable Water
NPW. Non-Potable Water

Sample Kit or Container Lot #: NA

Preservation Codes:
0. None 5. Na2S2O3
1. H2SO4 6. Crushed Ice (4C)
2. HNO3 7. C6H8O6
3. HCl 8. NH4Cl
4. NaOH 9. Other: (List)

Thermal Preservation:
In Crushed Ice? (Yes) / No
Cooler Temp: NA °C
Sample Cont. Temp: 0.6 °C

Turnaround Requested:
X Standard (10 Business Days)
___ Semi-Rush (3-5 Business Days)
___ Rush (1-2 Business Days)
Turnaround times are estimated & subject to change. Surcharges apply for all Rush samples.

Billing Information:
_____ Invoice with Report
_____ Invoice to Accounting
Req. #: _____
P.O. #: C1E35B

Special Instructions:

Transfer Numbers	Relinquished By	Date / Time	Received By	Date / Time
1	Conor Lucy	02/12/24 1504		02/12/24 1504

NELAP ACCREDITED TNI LABORATORY
Certification #E821059

Lab General Form 059, Rev. #1, Rev. Date: 02/07/22, Effective Date: 02/07/22.

Visit us online & order kits at: www.delilab.com

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

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

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

DEP Approval By: _____ Contractor Approval By: Noel Savoie
Project Manager

Contractor Representatives Contacted: Noel Savoie

Date: 1/16/2024
Means of Contact: Email

Task Assignment Number: OV516 Maximum Cost: **$41.50** Turnaround Time: 5 BD

Sample Delivery Date: 2/16/2024

Project Name/Description:
RQ-2024-01-29-38; FYI3 Green Cove Springs - Harbor Road WWTF (FL0020915)

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	1	1		$39.00		$39.00
217/Sample Disposal Fee:	1				$2.50		$2.50
Total Number of Containers Shipped:	1					**Total:**	**$41.50**

670-34900 Chain of Custody

QC Instructions:

Comments: Quote #

Samples released to Contract Lab by: Conor Ivey Date/Time: 2/15/2024

Delivery Method: FedEx Shipping ✓

Samples Accepted by: [illegible] 0.9/0.9 Date/Time 2/16/24 920

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

Appendix D. Chemical Analysis of Effluent

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/12/2024 12:20	Effluent Grab	AGP/LN	Algal Growth Potential	1.95	mg DryWt/L	0.300	0.900
2/12/2024 12:20	Effluent Grab	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.90 U	µg/L	0.90	2.7
2/12/2024 12:20	Effluent Grab	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	0.82 U	µg/L	0.82	2.5
2/12/2024 12:20	Effluent Grab	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Uncorrected	0.60 U	µg/L	0.60	1.8
2/12/2024 12:20	Effluent Grab	Overflow	Fecal Coliforms-Membrane Filter	2 U	cfu/100 mL	2	2
2/12/2024 12:20	Effluent Grab	Toxicology	Bioassay-Acute-Def-FW-Fish, LC50	100 L	LC50	-	-
2/12/2024 12:20	Effluent Grab	Toxicology	Bioassay-Acute-Def-FW-C.dubia, LC50	100 L	LC50	-	-
2/12/2024 12:20	Effluent Grab	Metals	Sodium	67.0	mg/L	0.50	2.0
2/12/2024 12:20	Effluent Grab	Metals	Cadmium	0.020 U	µg/L	0.020	0.080
2/12/2024 12:20	Effluent Grab	Metals	Calcium	27.3	mg/L	0.075	0.30
2/12/2024 12:20	Effluent Grab	Metals	Nickel	0.91 I	µg/L	0.50	2.0
2/12/2024 12:20	Effluent Grab	Metals	Potassium	10.5	mg/L	0.30	1.2
2/12/2024 12:20	Effluent Grab	Metals	Arsenic	0.22	µg/L	0.050	0.20
2/12/2024 12:20	Effluent Grab	Metals	Silver	0.010 U	µg/L	0.010	0.040
2/12/2024 12:20	Effluent Grab	Metals	Iron	55 I	µg/L	30	120
2/12/2024 12:20	Effluent Grab	Metals	Selenium	0.20 U	µg/L	0.20	0.80
2/12/2024 12:20	Effluent Grab	Metals	Copper	0.49 I	µg/L	0.40	0.80
2/12/2024 12:20	Effluent Grab	Metals	Magnesium	10.8	mg/L	0.040	0.16
2/12/2024 12:20	Effluent Grab	Metals	Aluminum	11 I	µg/L	5.0	20
2/12/2024 12:20	Effluent Grab	Metals	Lead	0.20 U	µg/L	0.20	0.40
2/12/2024 12:20	Effluent Grab	Metals	Zinc	20	µg/L	5.0	20
2/12/2024 12:20	Effluent Grab	Metals	Chromium	0.42 I	µg/L	0.40	1.6
2/12/2024 12:20	Effluent Grab	Nutrients	Fluoride	0.20 J	mg F/L	0.025	0.10
2/12/2024 12:20	Effluent Grab	Nutrients	Color (true)	20 A	PCU	2.5	6.0
2/12/2024 12:20	Effluent Grab	Nutrients	O-Phosphate-P	0.017	mg P/L	0.0040	0.010

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/12/2024 12:20	Effluent Grab	Nutrients	Organic Carbon	8.5	mg C/L	0.50	1.0
2/12/2024 12:20	Effluent Grab	Nutrients	Kjeldahl Nitrogen	3.4	mg N/L	0.40	1.0
2/12/2024 12:20	Effluent Grab	Nutrients	Chloride	83 A	mg Cl/L	0.40	1.0
2/12/2024 12:20	Effluent Grab	Nutrients	Total-P	0.075	mg P/L	0.010	0.050
2/12/2024 12:20	Effluent Grab	Nutrients	Sulfate	81 A	mg SO4/L	0.40	1.0
2/12/2024 12:20	Effluent Grab	Nutrients	Ammonia-N	1.9	mg N/L	0.20	0.50
2/12/2024 12:20	Effluent Grab	Nutrients	Total Alkalinity	79 A	mg CaCO3/L	0.65	2.5
2/12/2024 12:20	Effluent Grab	Nutrients	Turbidity	0.55 I	NTU	0.10	1.0
2/12/2024 12:20	Effluent Grab	Nutrients	NO2NO3-N	6.6	mg N/L	0.040	0.10
2/12/2024 12:20	Effluent Grab	Pesticides	Sucralose	99	µg/L	0.40	1.6
2/12/2024 12:20	Effluent Grab	Pesticides	Atrazine Desethyl	1.3 U	ng/L	1.3	6.7
2/12/2024 12:20	Effluent Grab	Pesticides	Caffeine	34 I	ng/L	7.7	39
2/12/2024 12:20	Effluent Grab	Pesticides	Difenoconazole	0.62 U	ng/L	0.62	3.1
2/12/2024 12:20	Effluent Grab	Pesticides	Etridiazole	0.10 U	ng/L	0.10	0.52
2/12/2024 12:20	Effluent Grab	Pesticides	Fluazifop-P-butyl	0.10 U	ng/L	0.10	0.52
2/12/2024 12:20	Effluent Grab	Pesticides	Fludioxonil	3.4	ng/L	0.10	0.52
2/12/2024 12:20	Effluent Grab	Pesticides	Loratadine	12	ng/L	0.31	1.5
2/12/2024 12:20	Effluent Grab	Pesticides	Metalaxyl	0.52 U	ng/L	0.52	2.6
2/12/2024 12:20	Effluent Grab	Pesticides	Prodiamine	0.21 U	ng/L	0.21	1.0
2/12/2024 12:20	Effluent Grab	Pesticides	Terbuthylazine	0.21 U	ng/L	0.21	1.0
2/12/2024 12:20	Effluent Grab	Pesticides	Thiobencarb	0.52 U	ng/L	0.52	2.6
2/12/2024 12:20	Effluent Grab	Pesticides	Ibuprofen	0.080 U	µg/L	0.080	0.32
2/12/2024 12:20	Effluent Grab	Pesticides	Ametryn	1.1 U	ng/L	1.1	5.7
2/12/2024 12:20	Effluent Grab	Pesticides	Diazinon	0.13 U	ng/L	0.13	0.64
2/12/2024 12:20	Effluent Grab	Pesticides	Fenamiphos	0.46 U	ng/L	0.46	2.3
2/12/2024 12:20	Effluent Grab	Pesticides	Fipronil Sulfide	5.7	ng/L	0.10	0.52
2/12/2024 12:20	Effluent Grab	Pesticides	Hexazinone	0.52 U	ng/L	0.52	2.6
2/12/2024 12:20	Effluent Grab	Pesticides	Mevinphos	1.0 U	ng/L	1.0	5.2

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/12/2024 12:20	Effluent Grab	Pesticides	Parathion Ethyl	0.15 U	ng/L	0.15	0.77
2/12/2024 12:20	Effluent Grab	Pesticides	Prometon	3.1 U	ng/L	3.1	15
2/12/2024 12:20	Effluent Grab	Pesticides	Propiconazole	11	ng/L	0.62	3.1
2/12/2024 12:20	Effluent Grab	Pesticides	Pyriproxyfen	0.26 U	ng/L	0.26	1.6
2/12/2024 12:20	Effluent Grab	Pesticides	Simazine	53	ng/L	0.26	1.3
2/12/2024 12:20	Effluent Grab	Pesticides	Chlorpyrifos Methyl	0.10 U	ng/L	0.10	0.52
2/12/2024 12:20	Effluent Grab	Pesticides	Dimethomorph	0.37 I	ng/L	0.31	1.5
2/12/2024 12:20	Effluent Grab	Pesticides	Disulfoton	0.62 U	ng/L	0.62	3.1
2/12/2024 12:20	Effluent Grab	Pesticides	Ethoprop	0.13 U	ng/L	0.13	0.64
2/12/2024 12:20	Effluent Grab	Pesticides	Fenbuconazole	0.52 U	ng/L	0.52	2.6
2/12/2024 12:20	Effluent Grab	Pesticides	Fipronil	33	ng/L	0.21	1.0
2/12/2024 12:20	Effluent Grab	Pesticides	Fipronil Sulfone	4.5	ng/L	0.10	0.52
2/12/2024 12:20	Effluent Grab	Pesticides	Metolachlor	0.77 U	ng/L	0.77	3.9
2/12/2024 12:20	Effluent Grab	Pesticides	Oxyfluorfen	0.21 U	ng/L	0.21	1.0
2/12/2024 12:20	Effluent Grab	Pesticides	Parathion Methyl	0.21 U	ng/L	0.21	1.0
2/12/2024 12:20	Effluent Grab	Pesticides	Alachlor	0.41 U	ng/L	0.41	2.1
2/12/2024 12:20	Effluent Grab	Pesticides	Bromacil	0.62 U	ng/L	0.62	3.1
2/12/2024 12:20	Effluent Grab	Pesticides	Dithiopyr	1.3 IJ	ng/L	1.0	5.2
2/12/2024 12:20	Effluent Grab	Pesticides	Ethion	0.31 U	ng/L	0.31	1.5
2/12/2024 12:20	Effluent Grab	Pesticides	Flutolanil	0.10 U	ng/L	0.10	0.52
2/12/2024 12:20	Effluent Grab	Pesticides	Fonofos	0.15 U	ng/L	0.15	0.77
2/12/2024 12:20	Effluent Grab	Pesticides	Imazalil	0.67 U	ng/L	0.67	3.4
2/12/2024 12:20	Effluent Grab	Pesticides	Iprodione	0.52 U	ng/L	0.52	2.6
2/12/2024 12:20	Effluent Grab	Pesticides	Malathion	0.36 U	ng/L	0.36	1.8
2/12/2024 12:20	Effluent Grab	Pesticides	Prometryn	0.36 U	ng/L	0.36	1.8
2/12/2024 12:20	Effluent Grab	Pesticides	Sulfentrazone	4.0 I	ng/L	1.4	7.2
2/12/2024 12:20	Effluent Grab	Pesticides	Tebuconazole	6.4 I	ng/L	1.4	7.2
2/12/2024 12:20	Effluent Grab	Pesticides	Atrazine	62	ng/L	0.21	1.0

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/12/2024 12:20	Effluent Grab	Pesticides	Azoxystrobin	11 J	ng/L	0.41	2.1
2/12/2024 12:20	Effluent Grab	Pesticides	Cyprodinil	0.78 I	ng/L	0.21	1.0
2/12/2024 12:20	Effluent Grab	Pesticides	Demeton	3.6 U	ng/L	3.6	18
2/12/2024 12:20	Effluent Grab	Pesticides	EPTC	0.52 U	ng/L	0.52	2.6
2/12/2024 12:20	Effluent Grab	Pesticides	Fipronil Desulfinyl	0.99	ng/L	0.10	0.52
2/12/2024 12:20	Effluent Grab	Pesticides	Fluxapyroxad	0.26 U	ng/L	0.26	1.3
2/12/2024 12:20	Effluent Grab	Pesticides	Pendimethalin	1.8 U	ng/L	1.8	8.8
2/12/2024 12:20	Effluent Grab	Pesticides	Phenytoin	5.5 U	ng/L	5.5	27
2/12/2024 12:20	Effluent Grab	Pesticides	Pronamide	0.10 U	ng/L	0.10	0.52
2/12/2024 12:20	Effluent Grab	Pesticides	Propargite	0.82 U	ng/L	0.82	4.1
2/12/2024 12:20	Effluent Grab	Pesticides	Acetochlor	0.21 U	ng/L	0.21	1.0
2/12/2024 12:20	Effluent Grab	Pesticides	Carbophenothion	0.52 U	ng/L	0.52	2.6
2/12/2024 12:20	Effluent Grab	Pesticides	Coumaphos	1.1 U	ng/L	1.1	5.7
2/12/2024 12:20	Effluent Grab	Pesticides	Dimethenamid	0.10 U	ng/L	0.10	0.52
2/12/2024 12:20	Effluent Grab	Pesticides	Naled	2.6 U	ng/L	2.6	13
2/12/2024 12:20	Effluent Grab	Pesticides	Norflurazon	1.0 U	ng/L	1.0	5.2
2/12/2024 12:20	Effluent Grab	Pesticides	Propanil	0.10 UJ	ng/L	0.10	0.52
2/12/2024 12:20	Effluent Grab	Pesticides	Stirophos	0.41 U	ng/L	0.41	3.3
2/12/2024 12:20	Effluent Grab	Pesticides	Naproxen	0.0080 U	µg/L	0.0080	0.032
2/12/2024 12:20	Effluent Grab	Pesticides	Carfentrazone Ethyl	0.15 U	ng/L	0.15	0.77
2/12/2024 12:20	Effluent Grab	Pesticides	Chlorfenapyr	2.9	ng/L	0.31	1.5
2/12/2024 12:20	Effluent Grab	Pesticides	Cyanazine	5.2 U	ng/L	5.2	26
2/12/2024 12:20	Effluent Grab	Pesticides	Flumioxazin	3.1 U	ng/L	3.1	15
2/12/2024 12:20	Effluent Grab	Pesticides	Molinate	0.26 U	ng/L	0.26	1.3
2/12/2024 12:20	Effluent Grab	Pesticides	Myclobutanil	0.36 U	ng/L	0.36	1.8
2/12/2024 12:20	Effluent Grab	Pesticides	Oxadiazon	0.36 U	ng/L	0.36	1.8
2/12/2024 12:20	Effluent Grab	Pesticides	Phorate	0.26 U	ng/L	0.26	1.3
2/12/2024 12:20	Effluent Grab	Pesticides	Pyridaben	1.4 U	ng/L	1.4	7.2

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/12/2024 12:20	Effluent Grab	Pesticides	Terbufos	0.21 U	ng/L	0.21	1.0
2/12/2024 12:20	Effluent Grab	Pesticides	Triadimefon	0.15 U	ng/L	0.15	0.77
2/12/2024 12:20	Effluent Grab	Pesticides	Azinphos Methyl	3.1 U	ng/L	3.1	15
2/12/2024 12:20	Effluent Grab	Pesticides	Butylate	0.46 U	ng/L	0.46	2.3
2/12/2024 12:20	Effluent Grab	Pesticides	Chlorpyrifos Ethyl	0.31 U	ng/L	0.31	1.5
2/12/2024 12:20	Effluent Grab	Pesticides	Metribuzin	0.89 I	ng/L	0.41	2.1
2/12/2024 12:20	Effluent Grab	Pesticides	Napropamide	0.72 U	ng/L	0.72	3.6
2/12/2024 12:20	Effluent Grab	Pesticides	Pyraflufen Ethyl	0.31 U	ng/L	0.31	1.5
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	2,4-Dinitrotoluene	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Diethyl phthalate	2.1 U	µg/L	2.1	8.5
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	N-Nitrosodimethylamine	2.1 U	µg/L	2.1	8.5
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.027 U	µg/L	0.027	0.11
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Fluorene	0.027 U	µg/L	0.027	0.11
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.027 U	µg/L	0.027	0.11
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Benzo(a)anthracene	0.027 U	µg/L	0.027	0.11
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Acenaphthylene	0.027 U	µg/L	0.027	0.11
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Hexachlorobutadiene	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Isophorone	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Phenanthrene	0.11 U	µg/L	0.11	0.43
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Pyrene	0.11 U	µg/L	0.11	0.43
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.2 U	µg/L	3.2	13
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	2,4-Dichlorophenol	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Fluoranthene	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	2-Nitrophenol	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	2,4-Dimethylphenol	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	2,6-Dinitrotoluene	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	3,3'-Dichlorobenzidine	11 U	µg/L	11	43

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Acenaphthene	0.027 U	µg/L	0.027	0.11
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Anthracene	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Benzidine	11 U	µg/L	11	43
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	5.3 U	µg/L	5.3	21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Di-n-octyl phthalate	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.027 U	µg/L	0.027	0.11
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Hexachlorobenzene	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Naphthalene	0.11 U	µg/L	0.11	0.43
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	2-Chlorophenol	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	2,4-Dinitrophenol	11 U	µg/L	11	43
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Di-n-butyl phthalate	2.1 U	µg/L	2.1	8.5
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Benzo(a)pyrene	0.027 U	µg/L	0.027	0.11
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Benzo(k)fluoranthene	0.027 U	µg/L	0.027	0.11
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Chrysene	0.027 U	µg/L	0.027	0.11
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Dimethyl phthalate	0.21 U	µg/L	0.21	0.85
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Hexachlorocyclopentadiene	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Hexachloroethane	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Phenol	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	2-Chloronaphthalene	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.17 I	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Benzo(b)fluoranthene	0.027 U	µg/L	0.027	0.11
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Nitrobenzene	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Pentachlorophenol	0.53 U	µg/L	0.53	2.1

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	4-Nitrophenol	11 U	µg/L	11	43
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	Butyl benzyl phthalate	1.1 U	µg/L	1.1	4.3
2/12/2024 12:20	Effluent Grab	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	0.053 U	µg/L	0.053	0.21
2/12/2024 12:20	Effluent Grab	Nutrients	Dissolved Oxygen %Sat	91.4	%Sat	-	-
2/12/2024 12:20	Effluent Grab	Nutrients	Temperature	22.80	C	-	-
2/12/2024 12:20	Effluent Grab	Nutrients	pH	6.78	SU	-	-
2/12/2024 12:20	Effluent Grab	Nutrients	Specific Conductance	636	µmhos/cm	-	-
2/12/2024 13:10	Equipment Blank	Nutrients	Kjeldahl Nitrogen	0.080 U	mg N/L	0.080	0.20
2/12/2024 13:10	Equipment Blank	Nutrients	NO2NO3-N	0.035	mg N/L	0.0040	0.010
2/12/2024 13:10	Equipment Blank	Nutrients	Organic Carbon	0.50 U	mg C/L	0.50	1.0
2/12/2024 13:10	Equipment Blank	Nutrients	Total-P	0.002 U	mg P/L	0.0020	0.0050
2/12/2024 13:10	Equipment Blank	Nutrients	Ammonia-N	0.011	mg N/L	0.0020	0.0050
2/12/2024 13:10	Equipment Blank	Nutrients	TSS	2 U	mg/L	2.0	10
2/12/2024 13:00	Field Blank	Metals	Selenium	0.20 U	µg/L	0.20	0.80
2/12/2024 13:00	Field Blank	Metals	Copper	0.40 U	µg/L	0.40	0.80
2/12/2024 13:00	Field Blank	Metals	Chromium	0.40 U	µg/L	0.40	1.6
2/12/2024 13:00	Field Blank	Metals	Zinc	5.0 U	µg/L	5.0	20
2/12/2024 13:00	Field Blank	Metals	Nickel	0.50 U	µg/L	0.50	2.0
2/12/2024 13:00	Field Blank	Metals	Lead	0.20 U	µg/L	0.20	0.40
2/12/2024 13:00	Field Blank	Metals	Cadmium	0.020 U	µg/L	0.020	0.080
2/12/2024 13:00	Field Blank	Metals	Arsenic	0.050 U	µg/L	0.050	0.20
2/12/2024 13:00	Field Blank	Metals	Magnesium	0.040 U	mg/L	0.040	0.16
2/12/2024 13:00	Field Blank	Metals	Calcium	0.075 U	mg/L	0.075	0.30
2/12/2024 13:00	Field Blank	Metals	Silver	0.010 U	µg/L	0.010	0.040
2/12/2024 13:00	Field Blank	Metals	Iron	30 U	µg/L	30	120
2/12/2024 13:00	Field Blank	Metals	Sodium	0.50 U	mg/L	0.50	2.0
2/12/2024 13:00	Field Blank	Metals	Aluminum	5.0 U	µg/L	5.0	20

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/12/2024 13:00	Field Blank	Metals	Potassium	0.30 U	mg/L	0.30	1.2
2/12/2024 13:00	Field Blank	Nutrients	Kjeldahl Nitrogen	0.080 U	mg N/L	0.080	0.20
2/12/2024 13:00	Field Blank	Nutrients	NO2NO3-N	0.004 U	mg N/L	0.0040	0.010
2/12/2024 13:00	Field Blank	Nutrients	Sulfate	0.20 U	mg SO4/L	0.20	0.50
2/12/2024 13:00	Field Blank	Nutrients	Total Alkalinity	0.65 U	mg CaCO3/L	0.65	2.5
2/12/2024 13:00	Field Blank	Nutrients	Organic Carbon	0.50 U	mg C/L	0.50	1.0
2/12/2024 13:00	Field Blank	Nutrients	O-Phosphate-P	0.004 U	mg P/L	0.0040	0.010
2/12/2024 13:00	Field Blank	Nutrients	Fluoride	0.025 U	mg F/L	0.025	0.10
2/12/2024 13:00	Field Blank	Nutrients	Chloride	0.20 U	mg Cl/L	0.20	0.50
2/12/2024 13:00	Field Blank	Nutrients	Ammonia-N	0.002 U	mg N/L	0.0020	0.0050
2/12/2024 13:00	Field Blank	Nutrients	Total-P	0.002 U	mg P/L	0.0020	0.0050
2/12/2024 13:00	Field Blank	Nutrients	Color (true)	2.5 U	PCU	2.5	6.0
2/12/2024 13:00	Field Blank	Nutrients	Turbidity	0.10 U	NTU	0.10	1.0
2/12/2024 13:00	Field Blank	Pesticides	Butylate	0.46 U	ng/L	0.46	2.3
2/12/2024 13:00	Field Blank	Pesticides	Carbophenothion	0.52 U	ng/L	0.52	2.6
2/12/2024 13:00	Field Blank	Pesticides	Chlorpyrifos Methyl	0.10 U	ng/L	0.10	0.52
2/12/2024 13:00	Field Blank	Pesticides	EPTC	0.52 U	ng/L	0.52	2.6
2/12/2024 13:00	Field Blank	Pesticides	Ethoprop	0.13 U	ng/L	0.13	0.64
2/12/2024 13:00	Field Blank	Pesticides	Fipronil	0.21 U	ng/L	0.21	1.0
2/12/2024 13:00	Field Blank	Pesticides	Fludioxonil	0.10 U	ng/L	0.10	0.52
2/12/2024 13:00	Field Blank	Pesticides	Naled	2.6 U	ng/L	2.6	13
2/12/2024 13:00	Field Blank	Pesticides	Prodiamine	0.21 U	ng/L	0.21	1.0
2/12/2024 13:00	Field Blank	Pesticides	Pronamide	0.10 U	ng/L	0.10	0.52
2/12/2024 13:00	Field Blank	Pesticides	Sucralose	0.010 U	µg/L	0.010	0.040
2/12/2024 13:00	Field Blank	Pesticides	Atrazine	0.21 U	ng/L	0.21	1.0
2/12/2024 13:00	Field Blank	Pesticides	Azoxystrobin	0.41 U	ng/L	0.41	2.1
2/12/2024 13:00	Field Blank	Pesticides	Fipronil Sulfone	0.10 U	ng/L	0.10	0.52
2/12/2024 13:00	Field Blank	Pesticides	Hexazinone	0.52 U	ng/L	0.52	2.6

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/12/2024 13:00	Field Blank	Pesticides	Myclobutanil	0.36 U	ng/L	0.36	1.8
2/12/2024 13:00	Field Blank	Pesticides	Propanil	0.10 UJ	ng/L	0.10	0.52
2/12/2024 13:00	Field Blank	Pesticides	Simazine	0.26 U	ng/L	0.26	1.3
2/12/2024 13:00	Field Blank	Pesticides	Tebuconazole	1.4 U	ng/L	1.4	7.2
2/12/2024 13:00	Field Blank	Pesticides	Terbuthylazine	0.21 U	ng/L	0.21	1.0
2/12/2024 13:00	Field Blank	Pesticides	Pyriproxyfen	0.26 U	ng/L	0.26	1.6
2/12/2024 13:00	Field Blank	Pesticides	Alachlor	0.41 U	ng/L	0.41	2.1
2/12/2024 13:00	Field Blank	Pesticides	Caffeine	7.7 U	ng/L	7.7	39
2/12/2024 13:00	Field Blank	Pesticides	Disulfoton	0.62 U	ng/L	0.62	3.1
2/12/2024 13:00	Field Blank	Pesticides	Fluazifop-P-butyl	0.10 U	ng/L	0.10	0.52
2/12/2024 13:00	Field Blank	Pesticides	Fluxapyroxad	0.26 U	ng/L	0.26	1.3
2/12/2024 13:00	Field Blank	Pesticides	Imazalil	0.67 U	ng/L	0.67	3.4
2/12/2024 13:00	Field Blank	Pesticides	Parathion Methyl	0.21 U	ng/L	0.21	1.0
2/12/2024 13:00	Field Blank	Pesticides	Phenytoin	5.5 U	ng/L	5.5	27
2/12/2024 13:00	Field Blank	Pesticides	Ametryn	1.1 U	ng/L	1.1	5.7
2/12/2024 13:00	Field Blank	Pesticides	Azinphos Methyl	3.1 U	ng/L	3.1	15
2/12/2024 13:00	Field Blank	Pesticides	Bromacil	0.62 U	ng/L	0.62	3.1
2/12/2024 13:00	Field Blank	Pesticides	Cyanazine	5.2 U	ng/L	5.2	26
2/12/2024 13:00	Field Blank	Pesticides	Dithiopyr	1.0 UJ	ng/L	1.0	5.2
2/12/2024 13:00	Field Blank	Pesticides	Fonofos	0.15 U	ng/L	0.15	0.77
2/12/2024 13:00	Field Blank	Pesticides	Iprodione	0.52 U	ng/L	0.52	2.6
2/12/2024 13:00	Field Blank	Pesticides	Molinate	0.26 U	ng/L	0.26	1.3
2/12/2024 13:00	Field Blank	Pesticides	Parathion Ethyl	0.15 U	ng/L	0.15	0.77
2/12/2024 13:00	Field Blank	Pesticides	Pendimethalin	1.8 U	ng/L	1.8	8.8
2/12/2024 13:00	Field Blank	Pesticides	Prometryn	0.36 U	ng/L	0.36	1.8
2/12/2024 13:00	Field Blank	Pesticides	Sulfentrazone	1.4 U	ng/L	1.4	7.2
2/12/2024 13:00	Field Blank	Pesticides	Propargite	0.82 U	ng/L	0.82	4.1
2/12/2024 13:00	Field Blank	Pesticides	Difenoconazole	0.62 U	ng/L	0.62	3.1

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/12/2024 13:00	Field Blank	Pesticides	Dimethomorph	0.31 U	ng/L	0.31	1.5
2/12/2024 13:00	Field Blank	Pesticides	Ethion	0.31 U	ng/L	0.31	1.5
2/12/2024 13:00	Field Blank	Pesticides	Fipronil Sulfide	0.10 U	ng/L	0.10	0.52
2/12/2024 13:00	Field Blank	Pesticides	Oxyfluorfen	0.21 U	ng/L	0.21	1.0
2/12/2024 13:00	Field Blank	Pesticides	Triadimefon	0.15 U	ng/L	0.15	0.77
2/12/2024 13:00	Field Blank	Pesticides	Naproxen	0.0080 U	µg/L	0.0080	0.032
2/12/2024 13:00	Field Blank	Pesticides	Atrazine Desethyl	1.3 U	ng/L	1.3	6.7
2/12/2024 13:00	Field Blank	Pesticides	Chlorfenapyr	0.31 U	ng/L	0.31	1.5
2/12/2024 13:00	Field Blank	Pesticides	Coumaphos	1.1 U	ng/L	1.1	5.7
2/12/2024 13:00	Field Blank	Pesticides	Demeton	3.6 U	ng/L	3.6	18
2/12/2024 13:00	Field Blank	Pesticides	Diazinon	0.13 U	ng/L	0.13	0.64
2/12/2024 13:00	Field Blank	Pesticides	Etridiazole	0.10 U	ng/L	0.10	0.52
2/12/2024 13:00	Field Blank	Pesticides	Flumioxazin	3.1 U	ng/L	3.1	15
2/12/2024 13:00	Field Blank	Pesticides	Malathion	0.36 U	ng/L	0.36	1.8
2/12/2024 13:00	Field Blank	Pesticides	Metalaxyl	0.52 U	ng/L	0.52	2.6
2/12/2024 13:00	Field Blank	Pesticides	Metolachlor	0.77 U	ng/L	0.77	3.9
2/12/2024 13:00	Field Blank	Pesticides	Mevinphos	1.0 U	ng/L	1.0	5.2
2/12/2024 13:00	Field Blank	Pesticides	Napropamide	0.72 U	ng/L	0.72	3.6
2/12/2024 13:00	Field Blank	Pesticides	Prometon	3.1 U	ng/L	3.1	15
2/12/2024 13:00	Field Blank	Pesticides	Terbufos	0.21 U	ng/L	0.21	1.0
2/12/2024 13:00	Field Blank	Pesticides	Propiconazole	0.62 U	ng/L	0.62	3.1
2/12/2024 13:00	Field Blank	Pesticides	Thiobencarb	0.52 U	ng/L	0.52	2.6
2/12/2024 13:00	Field Blank	Pesticides	Acetochlor	0.21 U	ng/L	0.21	1.0
2/12/2024 13:00	Field Blank	Pesticides	Cyprodinil	0.21 U	ng/L	0.21	1.0
2/12/2024 13:00	Field Blank	Pesticides	Dimethenamid	0.10 U	ng/L	0.10	0.52
2/12/2024 13:00	Field Blank	Pesticides	Fenbuconazole	0.52 U	ng/L	0.52	2.6
2/12/2024 13:00	Field Blank	Pesticides	Stirophos	0.41 U	ng/L	0.41	3.3
2/12/2024 13:00	Field Blank	Pesticides	Pyraflufen Ethyl	0.31 U	ng/L	0.31	1.5

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/12/2024 13:00	Field Blank	Pesticides	Carfentrazone Ethyl	0.15 U	ng/L	0.15	0.77
2/12/2024 13:00	Field Blank	Pesticides	Chlorpyrifos Ethyl	0.31 U	ng/L	0.31	1.5
2/12/2024 13:00	Field Blank	Pesticides	Fenamiphos	0.46 U	ng/L	0.46	2.3
2/12/2024 13:00	Field Blank	Pesticides	Fipronil Desulfinyl	0.10 U	ng/L	0.10	0.52
2/12/2024 13:00	Field Blank	Pesticides	Flutolanil	0.10 U	ng/L	0.10	0.52
2/12/2024 13:00	Field Blank	Pesticides	Loratadine	0.31 U	ng/L	0.31	1.5
2/12/2024 13:00	Field Blank	Pesticides	Metribuzin	0.41 U	ng/L	0.41	2.1
2/12/2024 13:00	Field Blank	Pesticides	Norflurazon	1.0 U	ng/L	1.0	5.2
2/12/2024 13:00	Field Blank	Pesticides	Oxadiazon	0.36 U	ng/L	0.36	1.8
2/12/2024 13:00	Field Blank	Pesticides	Phorate	0.26 U	ng/L	0.26	1.3
2/12/2024 13:00	Field Blank	Pesticides	Pyridaben	1.4 U	ng/L	1.4	7.2
2/12/2024 13:00	Field Blank	Pesticides	Ibuprofen	0.080 U	µg/L	0.080	0.32
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	2,4-Dinitrotoluene	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.026 U	µg/L	0.026	0.10
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.026 U	µg/L	0.026	0.10
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Isophorone	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Nitrobenzene	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Pyrene	0.10 U	µg/L	0.10	0.41
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	2,4-Dinitrophenol	10 U	µg/L	10	41
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Benzo(a)pyrene	0.026 U	µg/L	0.026	0.10
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Benzo(k)fluoranthene	0.026 U	µg/L	0.026	0.10
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Dimethyl phthalate	0.20 U	µg/L	0.20	0.82
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Hexachloroethane	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Phenanthrene	0.10 U	µg/L	0.10	0.41
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	2-Nitrophenol	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.051 U	µg/L	0.051	0.20

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	4-Nitrophenol	10 U	µg/L	10	41
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	5.1 U	µg/L	5.1	20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Di-n-butyl phthalate	2.0 U	µg/L	2.0	8.2
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Diethyl phthalate	2.0 U	µg/L	2.0	8.2
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Acenaphthene	0.026 U	µg/L	0.026	0.10
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Hexachlorobutadiene	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Fluoranthene	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Chrysene	0.026 U	µg/L	0.026	0.10
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	2-Chlorophenol	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.1 U	µg/L	3.1	12
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Acenaphthylene	0.026 U	µg/L	0.026	0.10
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	N-Nitrosodimethylamine	2.0 U	µg/L	2.0	8.2
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Naphthalene	0.10 U	µg/L	0.10	0.41
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Pentachlorophenol	0.51 U	µg/L	0.51	2.0
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	2,6-Dinitrotoluene	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.026 U	µg/L	0.026	0.10
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Di-n-octyl phthalate	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Hexachlorobenzene	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Hexachlorocyclopentadiene	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	2,4-Dichlorophenol	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	2,4-Dimethylphenol	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Butyl benzyl phthalate	1.0 U	µg/L	1.0	4.1
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Benzo(a)anthracene	0.026 U	µg/L	0.026	0.10
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Benzo(b)fluoranthene	0.026 U	µg/L	0.026	0.10

Date Sampled	Site ID	Analysis Group	Component	Result	Units	MDL	PQL
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Fluorene	0.026 U	µg/L	0.026	0.10
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Phenol	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	2-Chloronaphthalene	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	3,3'-Dichlorobenzidine	10 U	µg/L	10	41
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Anthracene	0.051 U	µg/L	0.051	0.20
2/12/2024 13:00	Field Blank	Priority Organic Pollutants	Benzidine	10 U	µg/L	10	41
2/15/2024 10:00	Effluent Composite	Overflow	Carbonaceous Biochemical Oxygen Demand	9.1 Q	mg/L	2.0	2.0
2/15/2024 10:00	Effluent Composite	Nutrients	Ammonia-N	4.1	mg N/L	0.40	1.0
2/15/2024 10:00	Effluent Composite	Nutrients	NO2NO3-N	5.1	mg N/L	0.040	0.10
2/15/2024 10:00	Effluent Composite	Nutrients	Organic Carbon	8.4	mg C/L	0.50	1.0
2/15/2024 10:00	Effluent Composite	Nutrients	Kjeldahl Nitrogen	5.7	mg N/L	0.40	1.0
2/15/2024 10:00	Effluent Composite	Nutrients	Total-P	0.11	mg P/L	0.010	0.050
2/15/2024 10:00	Effluent Composite	Nutrients	TSS	2 I	mg/L	2.0	10