Biological Assessment of

Mosaic Fertilizer, L.L.C. Plant City Facility

Hillsborough County

NPDES # FL0000078

Sampled April 08 – April 09, 2018

September 2019

Biology Program

DEP Laboratory

Division of Environmental Assessment and Restoration

DEP Laboratory Quality Manual

NELAC Certification No. E31780

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Summary of Results

There was no control site sampled and, due to restricted access to the stream, the distance to the Test Site was greater than 6 miles. Therefore, comparisons between the effluent and the Test Site should be made with caution. Effluent analytical chemistry values were generally greater than in-stream values but met all water quality standards. The measured algal growth potential (AGP) was lower than the predicted values and indicate that the system is nitrogen limited. The vascular plant community at the Test Site includes a greater percentage of invasive exotic and ubiquitous taxa than would be expected in a minimally disturbed stream, but it also includes many taxa that display fidelity to minimally disturbed conditions.

Facility Overview

At the time of the inspection (April 2018), operations at the Mosaic Fertilizer, LLC (Mosaic) Plant City Facility were temporarily idled and the previously active, lined phosphogypsum stack system was no longer receiving gypsum slurry. Management of the lined phosphogypsum stack system during its inactive period, was authorized by the Department's deactivation Order (OGC File No. 17-1163, effective December 13, 2017) pursuant to the provisions of rule 62-673.600, Florida Administrative Code. On June 18, 2019, Mosaic notified the Department via email that it will permanently close the phosphogypsum stack system. Mosaic submitted an application for closure of the Plant City Phosphogypsum Stack System on June 19, 2019, pursuant to the provisions of the Deactivation Order, as amended on February 15, 2019.

Formerly, the Mosaic Plant City Facility was a phosphate fertilizer manufacturing plant. The facility consists of a chemical plant, product manufacturing areas, and a phosphogypsum stack system. Sulfuric acid, phosphoric acid, ammonium sulfate, diammonium phosphate, and mono-ammonium phosphate products were manufactured. Sulfur enhanced diammonium phosphate and mono-ammonium phosphate were occasionally manufactured at the facility. Other operations at this site included electric cogeneration, phosphogypsum storage, process materials handling, and product shipping facilities.

Discharge Monitoring Report (DMR) information is provided in Appendix A. Outfall D-001 discharges treated process water, contaminated non-process wastewater, and stormwater from the facility into Big Ditch (WBID 1469), a tributary of the Hillsborough River (See Map).

Big Ditch falls within the West Central Nutrient Watershed Region for Numeric Nutrient Criteria (NNC). For this region, the NNC thresholds, expressed as annual geometric means, are 0.49 mg/L total phosphorus and 1.65 mg/L total nitrogen. This FYI event only provides single sample results. It should be noted that waterbody impairment assessments are based on longer-term data, and individual exceedances of a criterion do not indicate use impairment.. http://ca.dep.state.fl.us/mapdirect/?focus=nutrientcriteria

Methods

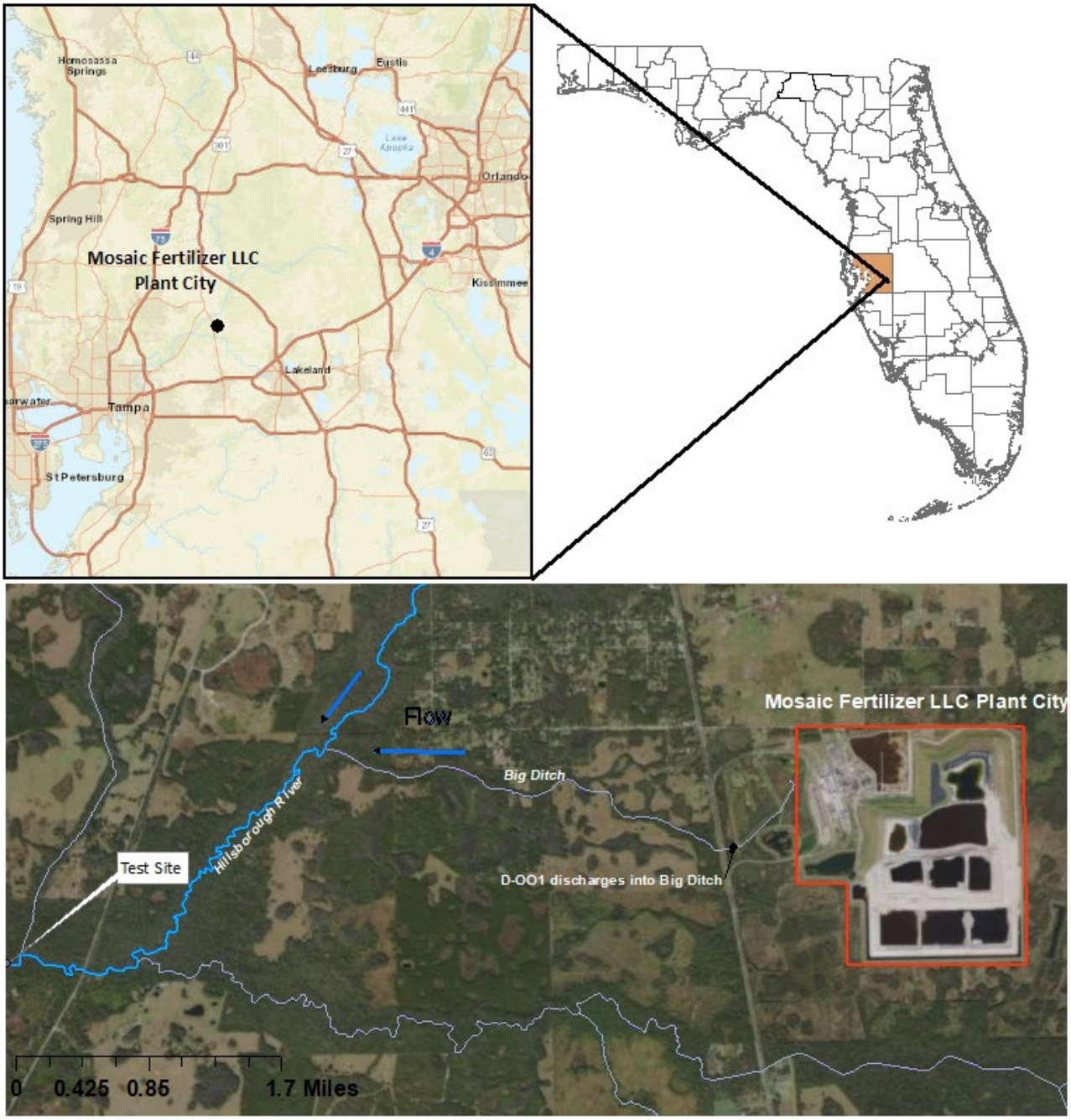
Effluent samples were taken as grab samples from monitoring site location D-001. Four separate grab samples were collected at evenly-spaced (6-hr) intervals over a 24-hour period. The four grab samples were used in eight bioassays (four bioassays for each species) and represent one test. Chemical and biological comparisons were made between the effluent discharge (D-001) and the Test Site, which is located in the Hillsborough River in the Hillsborough River State Park. The Test Site represents a far-field downstream receiving water for this facility (Figure 1). Near-field receiving waters, specifically Big Ditch (Class III Fresh Waters), are located predominantly on privately-owned land and were not accessible at the time of this FYI5 sampling event.

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

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

The following were involved in this investigation: Edgar Guerron-Orejuela and Amaury Betancourt (Water Resource Management), Judy Ashton and Ben Passwater (DEP Southwest Regional Operation Center, Temple Terrace), and DEP Laboratory in Tallahassee. The report was reviewed by District representatives and the Point Source Studies Review Committee (Mike Tanski, Nancy Ross, and Adrienne Pennington).

Map of facility and sampling location



Map produced by Lisa Homann on 1/4/19

Results

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

- The Habitat Assessment score at the Test Site was 156, which places the site in the optimal category. Four primary habitats, roots, snags, rock, and aquatic macrophytes, were observed in the river. Rock and aquatic macrophytes were the most common. Water velocity was optimal and habitat smothering was not an issue at the site.

Analytical Water Chemistry (See Table 2 and Appendix E)

- Interpretation of 62.302.530(48)(a) and (b), F.A.C., for both nutrients and nutrient response variables shall be made per 62.302.531 F.A.C.. NNC thresholds are for Class III waters and in-stream numerical values are expressed as annual geometric means. This FYI event only provides single sample results. It should be noted that waterbody impairment assessments are based on longer-term data, and individual exceedances of a criterion do not indicate use impairment. For comparative purposes only, the single sample total nitrogen value of the effluent and the Test Site samples from this event were higher than the 1.65 mg/L numeric nutrient criteria threshold for the region.
- Ortho-phosphate, total phosphorus, total ammonia, total kjeldahl nitrogen, organic nitrogen, total nitrogen, and total organic carbon results for the effluent samples were higher than the Test Site sample results. Nitrate and nitrite was higher in the Test Site sample than the effluent sample. The sample results complied with Class III Freshwater Quality Criteria (62-302.530, F. A. C.).
- Chlorophyll *a* (corrected) was detected in the effluent sample at an estimated level that was higher than that of the Test Site sample. The Test Site result is estimated due to a lab duplicate RPD failure.
- Carbonaceous biochemical oxygen demand, total dissolved solids, turbidity, color (true), alkalinity, chloride, fluoride, and sulfate results for the effluent samples were greater than the Test Site sample results. Total suspended solids were greater in the Test Site sample than the effluent sample.

Toxicity Whole Effluent Test (See Table 2 and Appendix E)

- Tests were performed April 10 through April 14, 2018.
- The effluent sample was not toxic to the fish, *Cyprinella leedsi,* or to the water flea, *Ceriodaphnia dubia,* during the acute definitive bioassays. The sample collected on 4/8/2018 at 1940 hours showed a 50% mortality for the *Ceriodaphnia dubia* and was used for reporting. It complied with effluent permit limits. The other three sample results were >100% effluent for both species.
- 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 E)

- All metals in the effluent and Test Site grab samples were either undetected or detected at levels that complied with Class III Freshwater Quality Criteria (62-302.530, F. A. C.).

Algal Growth Potential (See Table 4 and Appendix E)

- The AGP values in the effluent and Test Site samples using the freshwater species, *Pseudokirchneriella subcapitata* suggests that the effluent and the Test Site are nitrogen limited.
- By comparing the laboratory AGP result to the predicted AGP values for inorganic nitrogen, total nitrogen, ortho-phosphate, and total phosphorus, an inference can be made that not all of the nitrogen in the effluent was bio-available to the test species, providing additional evidence the effluent is nitrogen limited. To determine actual nutrient limitation, a limiting-nutrient algal growth potential test should be performed (Miller et al. 1978).
- There was at least an order of magnitude difference between the actual and predicted AGP values for the effluent orthophosphate and total phosphate. 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. 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 62-302.530(61), F.A.C. True algal growth inhibition can only be determined by performing A *Pseudokirchneriella subcapitata* chronic toxicity test. This test is most beneficial to determine if toxic compounds are a problem and if the chronic toxicity water quality standard is exceeded. Should algal growth inhibition be suspected, the district should request that the algal toxicity test be performed as a follow-up to the inspection.

Flora (See Appendix D)

- Two temporally independent Linear Vegetation Survey (LVS) samplings showing a Coefficient of Conservatism (C of C) score ≥ 2.5 and the frequency of occurrence of Florida Exotic Plant Pest Council (FLEPPC) exotic taxa ≤ 25% are needed to achieve NNC floral metrics. Sites with no observed macrophytes are considered to achieve the LVS component of the NNC. Two temporally independent Rapid Periphyton survey (RPS) samplings with ≤ 25% rank 4-6 (algae > 6mm thick) coverage are needed to achieve NNC floral metrics. This FYI event can only provide single sample results; therefore, NNC compliance should be determined with additional sampling events.
- The LVS was performed at the Test Site and aquatic macrophytes were present throughout the 100m stretch of river at abundances of 10% or less. Exotic and ubiquitous weedy native taxa have low C of C scores, and taxa that display fidelity to a particular community and are sensitive to disturbance have high C of C scores. For this single sampling event, the C of C score was 2.68, which meets the evidentiary threshold of 2.5. The percentage of FLEPPC taxa was 37.5%, which is a greater percentage of invasive exotics than would be expected in a minimally disturbed stream, and does not meet the evidentiary threshold of $\underline{<}$25%. The LVS result for this sampling event is anomalous, in that the individual metric results conflict with each other. The number and percentage of FLEPPC taxa is high (5 species, 37.5% of taxa occurrences), but the site also is characterized by several taxa with high or very high C of C scores for Florida streams: *Cicuta maculata* (4.54), *Crinum americanum* (9), *Orontium aquaticum* (8.39), *Osmunda regalis* (7.6), *Potamogeton illinoensis* (6.64), and *Vallisneria americana* (7). It is atypical to have this many taxa at both the low and high ends of the range of C of C scores, in one stream location. A second, temporally independent sampling event is needed to assess NNC floral metrics. One way to examine subsequent LVS results, if they are "split" again, is to look at the C of C scores of the dominant or co-dominant taxa, and their frequency throughout the ten transects.
- The RPS, performed within the Test Site's 100m stretch, scored 1.01%. The canopy cover ranged from 35% and 45% at 2 sampling points within the segment to above 80% at 7 points within the segment. Thick algal growth is not expected at moderately to heavily shaded sites. Furthermore, the water at the Test Site was tannic, which is an inhibitor of algal growth. RPS did not indicate nutrient enrichment at the Test Site.

Macroinvertebrates (See Tables 5 and 6 and Appendix D)

- Qualitative macroinvertebrate data from dipnet samples was collected at the Test Site. The Stream Condition Index (SCI) scored 76 (see Appendix B for an explanation of SCI Categories). The site had Ephemeroptera, Trichoptera, sensitive, clinger taxa, and long-lived taxa. No Plecoptera were collected. These taxa and metrics tend to decline with increased human disturbance. Over half of the sample consisted of Diptera and Amphipoda, which tend to be tolerant of human disturbance and are common when plants are abundant. The SCI sample had a low percentage of Tanytarsini individuals, which also tend to decline with human disturbance, but also a low percentage of very tolerant individuals (see Appendix B for an explanation of how these SCI metrics typically respond to human disturbance).
- For more information or to obtain a copy of the taxa lists, please contact the Biology Laboratory at 850-245-8177.

Literature Cited

Fore, L.S., Frydenborg, R., Miller, D., Frick, T., Whiting, D., Espy, J., and Wolfe, L. 2007. Development and Testing of Biomonitoring Tools for Macroinvertebrates in Florida Streams (Stream Condition Index and Biorecon). Florida Department of Environmental Protection. 110 pp.

Karr, J.R. & E.W. Chu. 1998. Restoring life in running waters: Better biological monitoring. Island Press. Covelo, California. 200 p.

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

Plafkin, J. L., M. T. Barbour, K. D. Porter, S. K. Gross and R. M. Hughes. 1989. Rapid bioassessment protocols for use in streams and rivers: Benthic macroinvertebrates and fish. U. S. EPA, Office of Water Regulations and Standards, Washington D.C., EPA 440-4-89-001.

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

Table 1. Effluent limits, Class III Freshwater Criteria and field parameters

Mosaic Plant City	Units	Class III Criteria	Effluent Permit Limits	Effluent	Test Site
Habitat Assessment	-	-	-	-	156
Sample Depth	m	-	-	-	0.3
Temperature	C	-	Report	21.9	23.3
pH	SU	6.0 - 8.5	6.0 - 8.5[1]	7.3	8.3
Specific Conductance	µmhos/cm	≤ 1,275	Report	1,200	448.3
Salinity	-	-	-	0.6 c	0.2 c
Dissolved Oxygen	% saturation	-	≥ 38	42.1	86.2
Flow	MGD	-	Report	3.2	-

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

c - Value is calculated

1 - pH “daily minimum” shall be “Report” when only accumulated stormwater is discharged from Outfall D-001.

Table 2. Effluent limits, Class III Freshwater Criteria and analytical water chemistry data

Mosaic Plant City	Units	Class III Criteria	Effluent Permit Limits	Effluent	Test Site
Ortho-phosphate	mg P/L	-	≤ 10.0	3.1	0.25
Total Phosphorus	mg P/L	0.49[2]	≤ 35.0	3.2	0.28
Total Ammonia	mg N/L	-	-	1.2	0.005 I
Un-ionized Ammonia (calculated salinity)	-	≤ 0.02 s	≤ 0.02 s	< 0.02 c	< 0.02 c
Nitrate and Nitrite	mg N/L	-	-	0.072	1.5
Total Kjeldahl Nitrogen	mg N/L	-	-	2.6	0.31 J
Organic Nitrogen	mg N/L	-	-	1.4 c	0.31 c
Total Nitrogen	mg N/L	≤ 1.65[2]	Report	2.7 c	1.8 c
Total Organic Carbon	mg C/L	-	-	14	2.6
Chlorophyll *a* - Corrected	µg/L	-	-	19	3.2 J
Phaeophytin	µg/L	-	-	8.7	1.1 I J
CBOD, 5 day, N - inhibited	mg/L	-	-	5.0	0.68 I
Total Suspended Solids	mg/L	-	-	5 I	10
Total Dissolved Solids	mg/L	-	-	788	257
Turbidity	NTU	< 29 t	Report	4.4	1.1
Color (true)	PCU	-	-	57	9.9
Alkalinity	mg CaCO3/L	≥ 20	-	245	165
Chloride	mg Cl/L	-	-	82	19
Fluoride	mg F/L	≤ 10.0	≤ 10.0	1.7	0.25
Sulfate	mg SO4/L	-	Report	250	30
Alpha, Total	pCi/L	≤ 15	≤ 15	4.87 U	2.24
Alpha-Counting Error	pCi/L	-	-	3.13	1.46
Toxicity (4-in-24 96-hr Acute Definitive, % effluent)					
Bioassay - Water flea *(Ceriodaphnia dubia)*	% effluent	-	≥ 100	100[3]	-
Bioassay - Fish *(Cyprinella leedsi)*	% effluent	-	≥ 100	> 100	-

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
c - Value is calculated
s - Single sample
t - Shall not exceed 29 NTUs above background
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
J - Estimated value
U - Material analyzed for but not detected; value reported is the method detection limit
2 - West Central Nutrient Watershed Region for Numeric Nutrient Criteria (NNC), 62-302.531(2)(c), F.A.C
3 – Test 2 showed the greatest toxicity and was reported.

Table 3. Effluent limits, Class III Freshwater Criteria and analytical metals data

Mosaic Plant City	Units	Effluent Permit Limits	Effluent Class III Criteria	Effluent	Test Site Class III Criteria	Test Site
Hardness	mg CaCO3/L	-	-	360 c	-	194 c
Aluminum	µg/L	-	-	60 U	-	97 I
Arsenic	µg/L	-	≤ 50	0.99	≤ 50	0.84
Cadmium	µg/L	-	≤ 0.699 b	0.020 U	≤ 0.442 b	0.021 I
Calcium	mg/L	-	-	122	-	68.6
Chromium, Total[4]	µg/L	-	≤ 246 b	0.47 I	≤ 148 b	0.58 I
Copper	µg/L	-	≤ 27.9 b	0.22 I	≤ 16.4 b	0.20 U
Iron	µg/L	-	≤ 1,000	81 I	≤ 1,000	140
Lead	µg/L	-	≤ 16.3 b	0.050 U	≤ 7.4 b	0.15 I
Magnesium	mg/L	-	-	13.5	-	5.53
Nickel	µg/L	-	≤ 154 b	1.76	≤ 91.4 b	0.44 I
Selenium	µg/L	-	≤ 5.0	0.24 I	≤ 5.0	0.87
Silver	µg/L	-	≤ 0.07	0.010 U	≤ 0.07	0.010 U
Sodium	mg/L	-	-	107	-	15.0
Zinc	µg/L	-	≤ 355 b	5.0 I	≤ 210 b	5.0 U

A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.
b - Value is calculated based on hardness, (62-302.530(3))
c - Value is calculated
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
U - Material analyzed for but not detected; value reported is the method detection limit
4 - Class III Freshwater Quality Criterion (62-302.530(19)(a), F.A.C.) is for chromium-III

Table 4. 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

Mosaic Plant City								
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	*Pseudokirchneriella subcapitata*	28.5	48.3 ± 9.7	1,333 ± 266.6	101.5 ± 20.3	1,376 ± 275.2	0.4	0.8
Test Site	*Pseudokirchneriella subcapitata*	0.300 U	57.2 ± 11.4	107.5 ± 21.5	68.8 ± 13.8	120.4 ± 24.1	6	6.5

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

Table 5. Macroinvertebrate Dipnet Samples - Qualitative.

Plant City Mosaic	Test Site	
Stream Condition Index 2012	76 A	
Replicate	Rep 1	Rep 2
Stream Condition Index Metrics		
Number of Total Taxa	27	25
Number of Ephemeroptera Taxa	3	3
Number of Trichoptera Taxa	5	4
Number of Clinger Taxa	8	7
Number of Long-lived Taxa	2	2
Number of Sensitive Taxa	5	5
Percent of Dominant Taxon	32.5	26.9
Percent Suspension Feeders and Filterers	29.4	32.2
Percent of Tanytarsini Individuals	3.8	3.8
Percent of Very Tolerant Individuals	0.6	2.5
Total Number of Individuals	160	160
Community Composition: Percent of total		
Dominant Taxon Name	*Hyalella azteca* (Amphipoda)	*Hyalella azteca* (Amphipoda)
Amphipoda	32.5	26.9
Coleoptera	2.5	5.0
Decapoda	9.4	7.5
Diptera	27.5	35.0
Ephemeroptera	6.3	5.6
Gastropoda	1.3	0.0
Odonata	0.0	0.6
Oligochaeta	0.6	0.0
Plecoptera	0.0	0.0
Trichoptera	18.8	18.1
Other	1.2	1.2
Functional Feeding Groups: Percent of total		
Browser-Grazers	4.7	3.8
Burrowing Deposit Feeders	0.6	0.0
Piercers	6.9	3.8
Predators	2.5	3.8
Scavengers	5.0	4.1
Scrapers	2.8	4.1
Shredders	18.4	15.9
Surface Deposit Feeders	29.7	32.5
Suspension Feeders	29.4	32.2
Unknown	0.0	0.0

A - Value reported is the mean of two determinations

Appendix A

Facility Summary

PART I: Information gathered prior to sampling event

Prepared By: Edgar Guerron Orejuela	**Contact Number:** 813-470-5749
Facility Name (as it appears on permit): Mosaic Fertilizer, L.L.C. Plant City Facility	**Former Names:** Central Phosphates, INC; CF Industries, Inc.
NPDES Permit Number: FL0000078	**Permit Expiration Date:** June 15, 2019
Physical Address: 660 East County Line Road Plant City, FL 33565-7212 Hillsborough County	
District: DWRM-Phosphate Management (Tampa)	**County:** Hillsborough

Function of Facility:
The facility consists of a chemical plant, product manufacturing areas, and a phosphogypsum stack system. Sulfuric acid, phosphoric acid, ammonium sulfate, diammonium phosphate, and mono-ammonium phosphate products are manufactured. Sulfur enhanced diammonium phosphate and mono-ammonium phosphate are occasionally manufactured at the facility. Other operations at this site include electric cogeneration, phosphogypsum storage, process materials handling, and product shipping facilities.
The phosphogypsum storage areas at this site includes a 308-acre lined active phosphogypsum stack, a 170-acre lined active phosphogypsum stack expansion (Sequence II), and a 410-acre unlined closed phosphogypsum stack. The process water cooling pond system is comprised of an 80-acre lined cooling pond and a 13-acre lined emergency holding pond. The two active phosphogypsum stacks also utilize a lined 154-acre, three compartment storage area located on the top of the closed phosphogypsum stack for process water inventory management. Other closed stack operations and maintenance are authorized separately under Department Permit No. FLA177610. Wastewaters generated at the facility include contaminated non-process wastewater comprised of blow down from process cooling towers, boilers, freshwater demineralizers, steam systems, scrubbers, vacuum pump seal water and equipment cooling water, as well as process wastewater. The facility also receives approximately 2 MGD of reclaimed water from the City of Plant City's Wastewater Treatment Plant for reuse in the manufacturing process to offset pumpage of ground water.

Facility Type: Phosphate fertilizer manufacturing plant	**Permitted Capacity (MGD):** N/A

Mean Flow for previous 12 months for all EXTERNAL outfalls listed in permit (list date range including months):
D-001 from January 2017 to February 2018 (during 2017 the facility discharged only in September due to hurricane Irma and started continuous discharge in January of 2018) → 4.69 MGD

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

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):
EFF-001

Description of Permitted Outfall(s):
Outfall D-001 discharges treated process water, contaminated non-process wastewater, and stormwater from the facility into Big Ditch (WBID 1469), a tributary of the Hillsborough River.

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

Treated process water, contaminated non-process wastewater, and stormwater may be discharged from Outfall D-001 into Big Ditch. Prior to discharge, the wastewater flows through a natural treatment system consisting of series of ponds which includes a serpentine style vegetated channel. The natural treatment system is a gravity flow-through system that provides residence time for the settlement of solids, natural filtration, and promotes the uptake of nutrients. The natural treatment system also receives discharges of stormwater via Internal Outfall I-002 from the closed phosphogypsum stack (Permit No. FLA177610). The facility is equipped to treat excess process water, and contaminated non-process wastewater using a lime, acidulation, and aeration process prior to discharge through Outfall D-001 via the natural treatment system (Attachment C). Stormwater transfers from the stormwater detention pond for the closed stack are also authorized for treatment along with process wastewater. Contaminated non-process wastewater and stormwater at the facility may also be managed through spray evaporation and on-site irrigation.

The facility also operates a 0.15 MGD domestic wastewater package treatment plant. Treatment consists of biological treatment using activated sludge in an aerobic environment. The effluent from this system is disinfected prior to discharge into the lined process water system. The residual waste solids from the process are introduced into the phosphoric acid production process for nutrient recovery.
Two wastewater treatment units are located in the Granulation Plant and the Sulfuric Acid Plant areas. The Granulation Plant unit collects wastewaters such as spills, leaks, and process cleaning solutions. The Sulfuric Acid unit treats hazardous wastewaters generated during periods of scheduled maintenance. The treated wastewater from these units is discharged into the process water pond system.

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; note: all condition references, such as I.A.5., are from current NPDES permit)

			Effluent Limitations		Monitoring Requirements			
Parameter	**Units**	**Max/Min**	**Limit**	**Statistical Basis**	**Frequency of Analysis**	**Sample Type**	**Monitoring Site Number**	**Notes**
Flow	MGD	Max Max	Report Report	Monthly Average Daily Maximum	Continuous	Recording Flow Meter with Totalizer	EFF-001	
pH	s.u.	Min Max	6.0* 8.5	Daily Minimum Daily Maximum	Continuous	Meter	EFF-001	See I.A.4.
Temperature (C), Water	Deg C	Max Max	Report Report	Monthly Average Daily Maximum	Weekly	Grab	EFF-001	See I.A.4.
Specific Conductance	umhos/cm	Max	Calculated Report	Single Sample Monthly Average	Weekly	Grab	EFF-001	See I.A.6.
Specific Conductance (background)	umhos/cm	Max	Report Report	Single Sample Monthly Average	Weekly, when discharging	Grab	SWB-001	See I.A.6.
Turbidity	NTU	Max	Calculated Report	Single Sample Monthly Average	Weekly	Grab	EFF-001	See I.A.5.
Turbidity (background)	NTU	Max	Report Report	Single Sample Monthly Average	Weekly, when discharging	Grab	SWB-001	See I.A.5.
Oxygen, Dissolved Percent Saturation	percent	Min Max	38 Report	Daily Average Monthly Average	Weekly	Grab	EFF-001	See I.A.12.
Fluoride, Total (as F)	mg/L	Max Max	Report 10.0	Monthly Average Daily Maximum	Weekly	Grab	EFF-001	
Sulfate, Total	mg/L	Max Max	Report Report	Monthly Average Daily Maximum	Weekly	Grab	EFF-001	
Nitrogen, Ammonia, Total (as N)	mg/L	Max Max	Report Report	Monthly Average Daily Maximum	Weekly	Grab	EFF-001	See I.A.4.
Ammonia, Unionized (as NH_3)	mg/L	Max Max	Report 0.02	Monthly Average Daily Maximum	Weekly	Calculated	EFF-001	See I.A.4.
Phosphate, Ortho (as P)	mg/L	Max Max	Report 10.0	Monthly Average Daily Maximum	Weekly	Grab	EFF-001	
Phosphorus, Total (as P)	mg/L	Max Max	10.0 35.0	Monthly Average Daily Maximum	Weekly	~~24-hr FPC~~ <u>Grab</u>	EFF-001	
Phosphorus, Total (as P)	lb/day	Max Max	Report Report	Monthly Average Daily Maximum	Weekly	Calculated	EFF-001	See I.A.9.
Nitrogen, Total (as N)	mg/L	Max Max	Report Report	Monthly Average Daily Maximum	Weekly	~~24-hr FPC Grab~~	EFF-001	

			Effluent Limitations		Monitoring Requirements			
Parameter	**Units**	**Max/Min**	**Limit**	**Statistical Basis**	**Frequency of Analysis**	**Sample Type**	**Monitoring Site Number**	**Notes**
Nitrogen, Total (as N)	lb/day	Max Max	Report Report	Monthly Average Daily Maximum	Weekly	Calculated	EFF-001	See I.A.9.
Alpha, Gross Particle Activity	pCi/L	Max	15.0	Daily Maximum	Monthly	Grab	EFF-001	
Radium 226 + Radium 228, Total	pCi/L	Max	5.0	Daily Maximum	Monthly	Grab	EFF-001	See I.A.7.
Acute Whole Effluent Toxicity, 96 Hour LC50 (Ceriodaphnia dubia)	percent	Min	100	Single Sample	Semi-Annually; twice per year	4 grabs/24 hr. period	EFF-001	See I.A.8.
Acute Whole Effluent Toxicity, 96 Hour LC50 (Cyprinella leedsi)	percent	Min	100	Single Sample	Semi-Annually; twice per year	4 grabs/24 hr. period	EFF-001	See I.A.8.
Phosphorus, Total (as P)	lb/yr	Max	Report	5 Year Average	Annually	Calculated	EFF-001	See I.A.11.
Nitrogen, Total (as N)	lb/yr	Max	Report	Annual Total	Annually	Calculated	EFF-001	See I.A.10.

PART I: Continued

Receiving Waters:	**Classification (indicate whether fresh or marine):**
Big Ditch (WBID 1469), a tributary of the Hillsborough River.	Class III

Toxicity Test Requirements (routine and/or additional test language, test species, salinity adjustment, etc.):
Routine tests shall be conducted on four separate grab samples collected at evenly-spaced (6-hr) intervals over a 24-hour period. The four grab samples shall be used in eight bioassays (four bioassays for each species) and shall represent one test. If the duration of the discharge is less than 24-hours, the duration of discharge shall be documented on the chain of custody. For additional follow-up tests, the first test shall be conducted on four separate grab samples collected at evenly-spaced (6-hr) intervals over a 24-hour period. The four grab samples shall be used in four separate bioassays for each species that failed the routine test. The four grab samples represent one test. The second follow-up test shall be run on a single grab sample collected on the day and time when the greatest toxicity was identified in the routine or first additional follow-up test. 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. 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. 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.

Administrative or Consent Orders (date executed, specific requirements, interim limit dates-if applicable, etc.):
Consent Order, OGC No. 87-0750 executed on Sept. 21, 1987. The facility is also required to pump select Floridan aquifer wells located west (downgradient) of the unlined stack to recover historically impacted groundwater.

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: Items highlighted in yellow are exceedances at their outfall. All other exceedances are in some of their compliance wells.

Date	Parameter and Units	Limit	Result
2/28/2018	Ammonia, Unionized (as NH3) mg/L	0.02	0.0269
3/31/2017, 6/30/2017, 9/30/2017, 12/31/2018	Alpha. Gross Particle Activity pCi/L	15.0	22.6
9/30/2017	Phosphate, Ortho (as P) mg/L	10.0	15.8
9/30/2017	Phosphorus, Total (as P) mg/L	10.0	12
9/30/2017	Fluoride, Total (as F) mg/L	4.0	4.03

Describe previous FYI and WQBEL study:
N/A

Describe previous or current Enforcement Actions (including WLs):
N/A

Describe any violations or problems noted in previous inspection:
Facility staff identified tears in the liner of one of their holding ponds (Pond 2). Actions were taken to clean the liner and fix all the tears.

Discuss whether DMR trends within previous five years are improving or declining: N/A
Additional Comments (this should include a trend of the Effluent, i.e. if the facility is now Reuse): *N/A*

PART II: Sampling Event Information	
Date(s) sample collected: 4/8/2018-4/9/2018	**Sampler(s):** Edgar Guerron Orejuela Amaury Betancourt
Temperature (Deg C): 21.9	**pH (SU):** 7.34
Dissolved Oxygen (%): 42.1 %	**Conductivity (umhos/cm):** 1200
Total Residual Chlorine (mg/L): N/A	**Total Residual Chlorine - after Disinfection (mg/L):** N/A
Method of Chlorination: N/A	**Method of De-chlorination:** N/A
Flow During Sample Collection for each outfall (MGD): 3.15 (monthly average for that month is 3.78 MGD)	
Mean Flow for each outfall for previous 12 months based on sampling date (If samples are taken on more than one day, indicate Mean Flow for each day): D-001: 3.50 MGD	
Describe Discharge during Sampling Event: ☒ **Continuous** ☐ **Intermittent** ☐ **Seasonal** ☐ **Rainfall Dependent** ☐ **Other, please specify:**	

Describe any conditions, difficulties or abnormal events that occurred during the sample collection and any other additional comments here:

Department staff conducted fifth-year sampling as part of this fifth-year inspection (FYI5). The following list outlines the sampling conducted by Department staff for this FYI5:

a) For the Compliance Biomonitoring Inspection (CBI) portion of the FYI5, Department staff collected four (4) grab samples (one every six hours) for acute toxicity testing, in accordance with the method required by the facility's NPDES permit, at Outfall D-001 at 1:30 PM and 7:40 PM on April 8, and at 1:35 AM and 8:30 AM on April 9.

b) For the Compliance Sampling, Water Quality, and Toxic Sampling Inspections (CSI, WQI, and XSI, respectively) portions of the FYI5, Department staff collected effluent samples on April 9, 2018 at 9:20 AM. At 8:45 AM, prior to effluent sampling, Department staff and Mosaic staff noted depressed dissolved oxygen (DO) levels through the outfall. DO as read by the Department's field meter (YSI) was only 33.1 % saturation (minimum permit limit is 38%). Facility staff indicated that bubblers are periodically activated within the small surge pond immediately upstream of the outfall. Facility staff turned on the bubbles. When Department staff read the DO levels again at the outfall at 9:10 AM, the reading was 46.6% saturation (above the outfall's permit minimum limit of 38% saturation).

c) Additionally, blank samples were collected at the site at 9:00 AM, immediately before the effluent sampling was initiated.

d) For the Impact Bioassessment Inspection (IBI) portion of the FYI5, Department staff conducted biological sampling of the Hillsborough River at the Hillsborough River State Park (Class III Fresh Waters), which represents a far-field downstream receiving water for this facility. The following assessments were performed: habitat assessment (HA), Rapid Periphyton Survey (RPS), Linear Vegetation Survey (LVS) and Stream Condition Index (SCI) of the Hillsborough River. Water quality samples were collected at 10:45 AM from the Hillsborough River as part of the biological sampling. Note that near-field receiving waters, specifically Big Ditch (Class III Fresh Waters), are located predominantly on privately-owned land and were not accessible at the time of the FYI5.

Appendix B

Explanation 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. New limits for *Escherichia coli* (*E. coli*), enterococci, and total ammonia nitrogen were approved on 07/24/2017**.**

1) Quality Assurance and Quality Control

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).

2) Chemical Analyses of the Effluent

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

3) Toxicity Bioassays

Greater than 50% mortality in an acute toxicity test may constitute an exceedance of 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 62-302.530(20), 62-302.530(61) and/or facility permit limits. A no observed effect concentration (NOEC) less than 100% effluent in a chronic test may constitute an exceedance of 62-302.530(61) and/or facility permit limits. Standard reference toxicant (SRT) tests are conducted monthly to ensure quality in toxicity testing.

4) Habitat Assessment

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

5) 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 62-302.530(46), F.A.C., 62-302.530(47)(a), F.A.C. and/or 62-302.530(47)(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 $\pm$ 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 62-302.530(61), F.A.C.

6) Benthic Macroinvertebrate Assemblages

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

Taxa richness: Taxa richness is the number of distinct macroinvertebrate taxa present in a sample. Stress, habitat destruction and pollution tend to reduce the number of different types of organisms present (Karr and Chu 1998). Decreases in taxa richness related to a facility's effluent may constitute exceedances of 62-302.530(46), F.A.C., 62-302.530(47)(a), F.A.C., 62-302.530(47)(b), F.A.C. and/or 62-302.530(61), F.A.C.

Percent Contribution of Dominant Taxon: Percent contribution of the dominant taxon is calculated by dividing the number of individuals in the most abundant taxa by the total number of individuals counted. Percent contribution of the dominant taxon tends to increase with increasing perturbation (Plafkin *et al*., 1989). Increases in the percent contribution of the dominant taxon related to a facility's effluent may constitute exceedances of 62-302.530(46), F.A.C., 62-302.530(47)(a), F.A.C. and/or 62-302.530(47)(b), F.A.C.

Community Composition: Shifts in proportions of major groups of organisms downstream of a point source, compared to upstream, control conditions, may indicate negative effects of a discharge (Fore et. al. 2007, Karr and Chu 1998). Shifts in community composition related to a facility's effluent may constitute exceedances of 62-302.530(46) F.A.C., 62-302.530(47)(a), F.A.C., 62-302.530(47)(b), F.A.C. and/or 62-302.530(61), F.A.C.

Functional Feeding Groups: Environmental degradation may differentially affect groups of invertebrates based on how the group feeds (e.g. predators, deposit feeders, etc.). In Florida, pollution may be responsible for reducing the numbers of filter feeders and shredders (Fore et. al. 2007). Changes in the proportions of functional feeding groups related to a facility's effluent may constitute exceedances of 62-302.530(46), F.A.C., 62-302.530(47)(a), F.A.C., 62-302.530(47)(b), F.A.C. and/or 62-302.530(61), F.A.C..

The Stream Condition Index (SCI): The SCI is a biological assessment tool that measures the degree to which flowing fresh waters support a healthy, well-balanced biological community, as indicated by aquatic, benthic macroinvertebrates. Macroinvertebrate taxonomic and abundance data are used to calculate ten biological metric scores, each of which has been shown to respond predictably to human disturbance (Fore et al. 2007; DEP SOP SCI 1000; DEP-SAS-001/11, incorporated into the Quality Assurance Rule by reference 62-160.210(2)(a), F.A.C.). The points for each of the metric scores (0 to 10) are summed to yield a final SCI score (range 0-100). The ten metrics are percent contribution of Tanytarsini, number of sensitive taxa, percent contribution of very tolerant taxa, number of total taxa, number of Ephemeroptera taxa, number of Trichoptera taxa, percent contribution of the dominant taxon, the percent contribution of suspension and filter feeders, number of long-lived taxa, and number of clinger taxa. As human disturbance increases, it is expected that the number of total taxa, the number of Ephemeroptera taxa, Trichoptera taxa, sensitive taxa, clinger taxa, long-lived taxa, and the percent contribution of Tanytarsini and suspension and filter feeders will decrease while percent contribution of dominant taxon and percent contribution of very tolerant taxa will increase.

The SCI can be used to determine faunal health associated with Chapter 62-302.531, F.A.C. An average SCI score of 40 or higher from at least two temporally independent SCIs, performed at representative locations and times indicates a balanced faunal community. Neither of the two most recent SCI scores should be less than 35. Failure of the SCI indicates that the stream does not meet the Clean Water Act goal of biological integrity, as measured by community structure and function. A failing SCI could be due to water quality problems or other physical disturbance factors such as habitat disruption or hydrologic alterations. While the stressor may not be known, a failed SCI does indicate that fauna is not well-balanced. A failing SCI score, if it is shown to be related to a facility's effluent, may constitute exceedances of 62-302.530(46), F.A.C., 62-302.530(47)(a), F.A.C., 62-302.530(47)(b), F.A.C., or of 62-302.530(61).

7) Rapid Periphyton Survey

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

8) Linear Vegetation Survey

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

9) Definition of Qualifiers

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

Appendix C

Chain of Custody

Lot 2

last revised Jan 25, 2018

Request Number: RQ-2018-04-09-28

Reference SCI

Florida Department of Environmental Protection
Central Laboratory Submittal Form

Customer: SW-DIST
Project ID: SCIREF

Requester: Matthew Bearden
Collected By: J. Ashton, B. Rasmussen

Field Report Prepared By: Jenny Ashton
Sampling Agency: FDEP

Location Field ID/WIN G2SW0062 Site Name: Hillsborough River in State Park	☐ dd ☐ dms	☐ Comp ☒ Grab	Collection (comp begin or grab) Date 4-9-2018 Time 1045	Eastern Central	Composite end Date	Time	Bottle Group(s) (See pg 2)	4/B/C
		Matrix (type, e.g., Salt, Fresh, etc) F	Diss. Oxygen 7.34	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L)			
		Temp (C) 23.3	pH 8.33	Sample Depth 0.3	☐ ft ☒ m	Sp. Conductance (umho/cm) 448.3		
		Salinity (ppt)	Comments E. COLI BOTTLES NOT USED					
Location		☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern Central	Composite end Date	Time	Bottle Group(s)	
Field ID		Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)			
WIN/STORET #		Temp (C)	pH	Sample Depth	☐ ft ☐ m	Sp. Conductance (umho/cm)		
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments					
Location		☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern Central	Composite end Date	Time	Bottle Group(s)	
Field ID		Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)			
WIN/STORET #		Temp (C)	pH	Sample Depth	☐ ft ☐ m	Sp. Conductance (umho/cm)		
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments					
Location		☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern Central	Composite end Date	Time	Bottle Group(s)	
Field ID		Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)			
WIN/STORET #		Temp (C)	pH	Sample Depth	☐ ft ☐ m	Sp. Conductance (umho/cm)		
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments					

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
J. Ashton	4-9-18 1200	FED EX	1		

Request Number: RQ-2018-04-09-21

FYI5 Mosaic Fertilizer, LLC - Plant City Operations
FL0000078 Sampling Inspection

Customer: BMR-TAMPA

Project ID: FYI5

Florida Department of Environmental Protection
Central Laboratory Submittal Form

last revised Jan 25, 2018

Requester: Lillian Haynes

Field Report Prepared By: EGO & APB

Collected By: Edgar Guerron Orjuela (EGO) & Amaury Betancourt (APB)

Sampling Agency: FDEP

Location: Mosaic - Plant City
Field ID: EFF-001 -TOX-1,2,3,4
WIN/STORET #:
Latitude: ☐ dd ☐ dms **Longitude:** ☐ dd ☐ dms

☐ Comp ☑ Grab | Collection (~~comp~~ begin or grab) Date 4/18/2018 Time 1:30 PM | Eastern Central | ~~Composite~~ end Grab Date 4/9/18 Time 8:30A | Bottle Group(s) (See pg 2): A

Matrix (type, e.g., Salt, Fresh, etc): | Diss. Oxygen 33.1 31.0 ☐ mg/L ☐ % sat | Total Res. Chlorine (mg/L):

Temp (C) 22.0 21.9 | pH 7.19 7.43 | Sample Depth surface ☐ ft ☐ m | Sp. Conductance (umho/cm) 1200

Salinity (ppt): | Comments: Collected Prior to turning on aerator.

Location: Mosaic - Plant City
Field ID: Blank
WIN/STORET #:
Latitude: ☐ dd ☐ dms **Longitude:** ☐ dd ☐ dms

☐ Comp ☑ Grab | Collection (comp begin or grab) Date 4/9/2018 Time 9:00 | Eastern Central | Composite end Date ___ Time ___ | Bottle Group(s): D

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

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

Salinity (ppt): | Comments: Field Blanks collected on-site.

Location: Mosaic - Plant City
Field ID: EFF-001
WIN/STORET #:
Latitude: ☐ dd ☐ dms **Longitude:** ☐ dd ☐ dms

☐ Comp ☑ Grab | Collection (comp begin or grab) Date 4/9/2018 Time 9:20 | Eastern Central | Composite end Date ___ Time ___ | Bottle Group(s): A

Matrix (type, e.g., Salt, Fresh, etc): | Diss. Oxygen 42.1 ☐ mg/L ☑ % sat | Total Res. Chlorine (mg/L):

Temp (C) 21.9 | pH 7.34 | Sample Depth surface ☐ ft ☐ m | Sp. Conductance (umho/cm) 1200

Salinity (ppt): | Comments: Collected about 25 minutes after turning on aerator.

Location: Mosaic Plant City-
Field ID: Hillsborough River State Park
WIN/STORET #:
Latitude: ☐ dd ☐ dms **Longitude:** ☐ dd ☐ dms

☑ Comp ☑ Grab | Collection (comp begin or grab) Date 4/9/18 Time 1045 | Eastern Central | ~~Composite~~ end Date ___ Time ___ | Bottle Group(s): B

Matrix (type, e.g., Salt, Fresh, etc): Fresh | Diss. Oxygen 7.34 86.2 ☑ mg/L ☒ % sat | ~~Total Res. Chlorine~~ (mg/L):

Temp (C) 23.3 | pH 8.33 | Sample Depth 0.3 ☐ ft ☒ m | Sp. Conductance (umho/cm) 448.3

Salinity (ppt): | Comments:

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
Edgar Guerron Orjuela	4/9/18; 1630	Fed Ex	3	HJ	4.10.18 1105

8 bioassay jugs 4.10.18 1025

Appendix D
Physical/Chemical and Habitat Assessment field sheets

Field ID/WIN G2SW0062

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

Site Name: Hillsborough River in State Park	STORET STATION NUMBER:	DATE (MM/DD/YY): 4-9-18	SAMPLING AGENCY: FDEP SW ROC
FIELD ID/NAME:	COUNTY: Hillsborough	LOCATION:	RECEIVING BODY OF WATER: Tampa Bay

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 20	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock] 20 19 18 17 16	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags) 15 14 13 12 11	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed 10 9 8 7 6	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered 5 4 3 2 1
Substrate Availability 20	Greater than 30% major productive habitat present at site 20 19 18 17 16	16% to 30% major productive habitat, by aerial extent 15 14 13 12 11	6% to 15% major productive habitat 10 9 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity 20	Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec ≥0.33 0.31 0.29 0.27 >0.25 20 19 18 17 16	Max. observed at typical transect: >0.1 to 0.25 m/sec 0.25 0.21 0.17 0.13 >0.1 15 14 13 12 11	Max. observed at typical transect: 0.05 to 0.1 m/sec 0.1 0.09 0.07 0.06 0.05 10 9 8 7 6	Max. observed at typical transect: <0.05 m/sec; or spate occurring: > 1 m/sec <0.05 0.04 0.03 0.01 <0.01 5 4 3 2 1
Habitat Smothering 18 Primary Score 78	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. 20 19 18 17 16	Adequate number of stable pools (1-2 per 12 times width) and >25% of habitats affected by sand, silt, or algae. 15 14 13 12 11	Does not have required number of stable pools (1-2 per 12 x width) and/or has shallow pools (<2 x prevailing depth). 10 9 8 7 6	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation. 5 4 3 2 1
Secondary Habitat Components **Artificial Channelization** 20	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. 20 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered. 15 14 13 12 11	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area. 10 9 8 7 6	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks. 5 4 3 2 1
Bank Stability Right Bank 9 Left Bank 10	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankful to top of bank. Bankfull is within or above the root zone with few raw, eroded areas. 10 9	Only meets 2 of the 3 requirements for optimal bank stability. 8 7 6	Only meets 1 of the 3 requirements for optimal bank stability. 5 4	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width Right Bank 10 Left Bank 10	Width of vegetation greater than 18 m 10 9	Width of vegetation >12 to 18m 8 7 6	Width of vegetation 6 to 12 m. human activities close to system 5 4	Less than 6 m of buffer zone due to intensive human activities 3 2 1
Riparian Zone Vegetation Quality Right Bank 9 Left Bank 10 Secondary Score 78	Over 80% of riparian surfaces consist of normal, expected plant community for given sunlight & habitat conditions (e.g., native plants; tree, shrub, and forbs represented, if appropriate). Minimal disturbance. 10 9	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed. 8 7 6	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious. 5 4	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). 3 2 1

156 **TOTAL SCORE**

Date: 4-9-18	Analyst: Jinsy Ashton, Ben Abbatiello	Signature:

78
78
156

62-160.800, F.A.C.

Revision Date: March 1, 2014

Field ID/WIN G2SW0062

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

LATITUDE

LONGITUDE

SAMPLING AGENCY FDEP ~~SouthRBB~~ SWROC

Site Name: Hillsborough River in State Park

RIPARIAN ZONE / STREAM FEATURES

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

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industry	Other (Specify)
95		34		1			

Landscape Development Intensity Index (LDI):

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

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

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

Hydrologic Modification Score (per FT 3101): 1

High Water Mark: 0.6 (m) + 1.5 (above present water level) = 2.1 (present depth) (above bed)

Artificially Impounded ☐ Yes ☒ No

Typical Width (m) Depth (m)/Velocity (m/sec) Transect

40 m wide

0.33 m/s	0.33 m/s	0.33 m/s
.3 m deep	2.6 m deep	0.3 m deep

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

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

SEDIMENT / SUBSTRATE

Sediment Oils: ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

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

Smothering of Substrates

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

SUBSTRATE TYPE

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

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)	2.7	5	
Undercut Banks / Roots	1.0	4	
Leaf Packs or Mat			
Aquatic Vegetation	6.7	5	
Rock or Shell Rubble	83	5	
Sand		1.0	
Mud / Muck / Silt			
Other BEDROCK			
Other			

WATER QUALITY

	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)
Top:								1.5
Mid:								☒ VOB
Bottom	0.3	23.3	~~7.34~~	7.34	86.2	446.3		TOTAL DEPTH 1.5

Meter ID: 8.33 YSI-PM

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

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

Water Sample Taken? ☒ Yes ☐ No

Sample Preserved? ☒ Yes ☐ No

Lot Number: Exp:

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

Algae Sample Taken? ☐ Yes ☒ No

Sample Preserved? ☐ Yes ☐ No

Lot Number: Exp:

Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐

ABUNDANCE

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

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

AMBIENT FIELD CONDITIONS / NOTES:

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

SAMPLING TEAM Jenny Ashton, Ben Passmore

SIGNATURE:

DATE: 4-9-18

62-160.800, F.A.C.

Revision Date: March 1, 2014

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

County: HILLSBOROUGH | Investigators: BP + JA | STORET Station Number: G25W0062

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1	N		
	2			
	3			
	4			
	5			90
	6			
	7			
	8			
	9			
10	1			
	2			
	3			
	4			
	5			96
	6			
	7			
	8			
	9			
20	1			
	2			
	3	↓		
	4	↓		
	5	N		90
	6			
	7			
	8			
	9			
30	1			
	2			
	3			
	4			
	5			90
	6			
	7			
	8			
	9			
40	1			
	2			
	3			
	4			
	5			82
	6			
	7			
	8			
	9			
50	1			
	2			
	3			
	4			
	5			54
	6			
	7			
	8			
	9	↓		

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
60	1	N		
	2			
	3			
	4			
	5			92
	6			
	7			
	8			
	9			
70	1			
	2			
	3			
	4			
	5			28
	6			
	7			
	8			
	9			
80	1			
	2			
	3			
	4			
	5			46
	6			
	7			
	8			
	9			
90	1			
	2			
	3			
	4			
	5			56
	6			
	7			
	8			
	9			
100	1			
	2			
	3			
	4			
	5			35
	6			
	7			
	8			
	9			

Algal * 20

Secchi depth	1.0
Estimated?	NO
# points ranked 4-6	1
total points assessed	57
% points ranked 4-6	1

Check accompanying data collected at same site/date.	
Algal mat sample	
Linear Veg Survey	✓
Habitat Assessment	✓
SCI/Biorecon	✓
Water sample	✓

RQ-2018-04-09-28

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

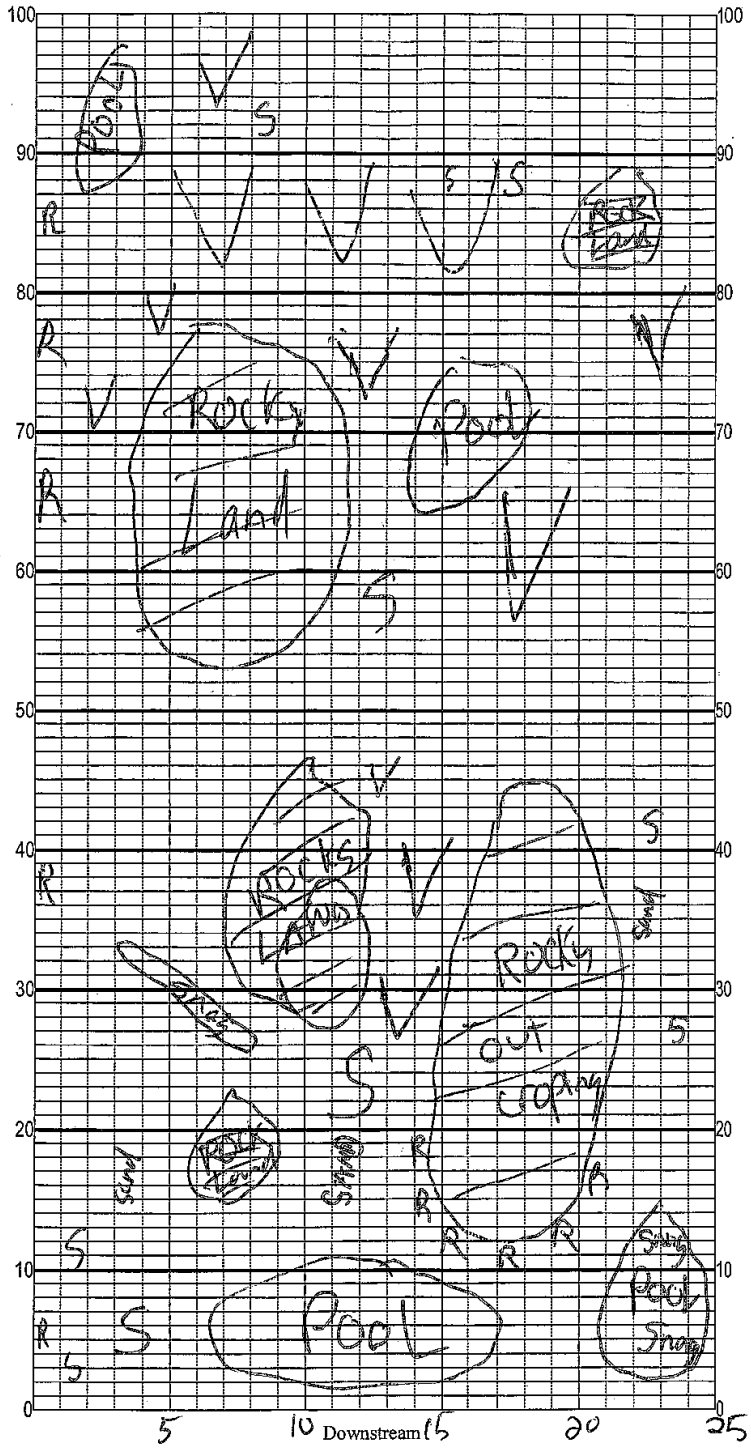
Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached.

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

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

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

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



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

Location: Hillsborough River in SP

Date: 4/9/18

Sampler:

100 m: Latitude	
Longitude	
0 m: Latitude	
Longitude	

Substrates: Code key, draw proportionate habitat abundance.		%
S	Snags	2.7
R	Roots/undercut banks	11.0
	Leaf Packs (or mats)	
V	Aquatic Macrophytes	6.7
	ROCKS	83
4	Pools total # observed = 43	
	# range expected = 8-10	85%

Average width 40 m
Average depth .6 m

Velocity measured at 0 meter mark.

WQ & chemistry taken at 0 meter mark.

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

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

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

Plants observed / other notes:

Rocks everywhere
Unless noted includes
where there is Veg + Stuff

snag = 67 = 2.7%
Veg = 168 = 6.7%

Roots = 29 = 11.1%
Rocks = 83%

0% = ISLANDS + ROCK EXPOSES

62-160.800, F.A.C

Revision Date: March 1, 2014

Field ID/WIN G2SW0062

DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD

Site Name: Hillsborough River in State Park | Date: 4-9-18 | County: Hillsborough | Waterbody: Hills. R.

Analyst: | Signature:

Comments: Hills. River Ref. Site in State Park

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

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

HERBACEOUS SPECIES	Meter Mark 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Micranthemum glomeratum											
Micranthemum umbrosum											
Myriophyllum aquaticum											
Najas guadelupensis											
Nuphar luteum						X					
Orontium aquaticum			X								
Panicum hemitomon											
Panicum repens											
Panicum rigidulum											
Pistia stratioides											
Polygonum glabra											
Polygonum hydropiperoides											
Polygonum punctatum											
Pontedaria cordata			X	X	X			X	X		
Potamogeton illinoensis											
Ruellia simplex											
Sacciolepis striata			X	X	X		X	X			
Sagittaria kurziana											
Sagittaria lancifolia											
Sagittaria latifolia											
Salvinia minima											
Samolus parviflora											
Saururus cernuus											
Sparganium americanum											
Sphagneticola trilobata (Wedelia)											
Typha sp.											
Urochloa mutica (Brachiaria)											
Vallisneria americana				X	X			X			
Zizania aquatica											
Cirsuita	X										
Swamp Ash Fraxinus	X										
Itea bush	X		X	X				X			
Taxodium	X	X									
Osmunda regalis			X								
Polygonum sp			X								
Bulbis weed							X				
	X	X	X		X					X	
			X	X	X		X	X	X		

Appendix E
Chemical analysis of effluent and receiving water

Date_Sampled	UDL	Station	Field_Sample_ID	SCH_Group	Component	Result	Units_Word_Result	MDL	PQL
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	AGP/LN	Algal Growth Potential	28.5	mg DryWt/L	0.3	0.9
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	5.0	mg/L	0.2	2
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	19	ug/L	0.55	1.7
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Uncorrected	25	ug/L	0.4	1.2
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Chlorophyll/Grain Size/BOD	Phaeophytin-a	8.7	ug/L	0.4	1.2
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Metals	Iron	81 I	ug/L	30	120
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Metals	Lead	0.050 U	ug/L	0.05	0.2
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Metals	Zinc	5.0 I	ug/L	5	20
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Metals	Sodium	107	mg/L	0.5	2
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Metals	Nickel	1.76	ug/L	0.2	0.8
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Metals	Silver	0.010 U	ug/L	0.01	0.04
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Metals	Cadmium	0.020 U	ug/L	0.02	0.08
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Metals	Magnesium	13.5	mg/L	0.04	0.16
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Metals	Copper	0.22 I	ug/L	0.2	0.8
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Metals	Aluminum	60 U	ug/L	60	240
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Metals	Chromium	0.47 I	ug/L	0.4	1.6
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Metals	Arsenic	0.99	ug/L	0.05	0.2
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Metals	Selenium	0.24 I	ug/L	0.2	0.8
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Metals	Calcium	122	mg/L	0.075	0.3
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Nutrients	Color (true)	57	PCU	2.5	6
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Nutrients	Turbidity	4.4	NTU	0.1	0.13
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Nutrients	O-Phosphate-P	3.1	mg P/L	0.1	0.25
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Nutrients	Kjeldahl Nitrogen	2.6	mg N/L	0.08	0.2
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Nutrients	NO2NO3-N	0.072	mg N/L	0.004	0.01
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Nutrients	Chloride	82	mg Cl/L	2	5
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Nutrients	Total Alkalinity	245	mg CaCO3/L	0.65	2.5
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Nutrients	TSS	5 I	mg/L	2	10
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Nutrients	Total-P	3.2	mg P/L	0.025	0.25
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Nutrients	Organic Carbon	14	mg C/L	0.5	1
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Nutrients	Fluoride	1.7	mg F/L	0.035	0.1
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Nutrients	Ammonia-N	1.2	mg N/L	0.02	0.05
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Nutrients	Sulfate	250	mg SO4/L	2	5

Date_Sampled	UDL	Station	Field_Sample_ID	SCH_Group	Component	Result	Units_Word_Result	MDL	PQL
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Nutrients	TDS	788	mg/L	15	25
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Atrazine Desisopropyl	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Malathion	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Prometon	0.019 U	ug/L	0.019	0.076
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Butylate	0.019 U	ug/L	0.019	0.076
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Demeton	0.023 U	ug/L	0.023	0.091
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Metribuzin	0.019 U	ug/L	0.019	0.076
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Parathion Ethyl	0.019 U	ug/L	0.019	0.076
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Simazine	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Bromacil	0.038 UJ	ug/L	0.038	0.15
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Disulfoton	0.0048 U	ug/L	0.0048	0.019
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Hexazinone	0.029 UJ	ug/L	0.029	0.11
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Mevinphos	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Naled	0.038 U	ug/L	0.038	0.15
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Alachlor	0.057 U	ug/L	0.057	0.23
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Metalaxyl	0.038 UJ	ug/L	0.038	0.15
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Metolachlor	0.057 U	ug/L	0.057	0.23
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Ametryn	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Ethion	0.0095 UJ	ug/L	0.0095	0.038
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Norflurazon	0.029 U	ug/L	0.029	0.11
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Parathion Methyl	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Phorate	0.0048 U	ug/L	0.0048	0.019
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Azinphos Methyl	0.019 U	ug/L	0.019	0.076
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Diazinon	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Ethoprop	0.0048 U	ug/L	0.0048	0.019
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Fenamiphos	0.029 UJ	ug/L	0.029	0.11
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Atrazine	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Chlorpyrifos Ethyl	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Fonofos	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Prometryn	0.019 UJ	ug/L	0.019	0.076
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Atrazine Desethyl	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Pesticides	Chlorpyrifos Methyl	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	2,4-Dichlorophenol	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Pyrene	0.024 U	ug/L	0.024	0.095

Date_Sampled	UDL	Station	Field_Sample_ID	SCH_Group	Component	Result	Units_Word_Result	MDL	PQL
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.024 U	ug/L	0.024	0.095
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	2,4-Dinitrophenol	9.5 U	ug/L	9.5	38
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9 U	ug/L	1.9	7.6
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Hexachlorobenzene	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	3,3'-Dichlorobenzidine	9.5 U	ug/L	9.5	38
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Isophorone	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Pentachlorophenol	0.48 U	ug/L	0.48	1.9
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Phenanthrene	0.024 U	ug/L	0.024	0.095
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Benzo(k)fluoranthene	0.024 U	ug/L	0.024	0.095
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Butyl benzyl phthalate	0.95 U	ug/L	0.95	3.8
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Fluorene	0.024 U	ug/L	0.024	0.095
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Hexachlorobutadiene	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.024 U	ug/L	0.024	0.095
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Nitrobenzene	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Acenaphthylene	0.024 U	ug/L	0.024	0.095
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Benzidine	9.5 U	ug/L	9.5	38
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Di-n-butyl phthalate	1.9 U	ug/L	1.9	7.6
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Fluoranthene	0.024 U	ug/L	0.024	0.095
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	0.095 U	ug/L	0.095	0.38
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Naphthalene	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	2-Nitrophenol	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Benzo(a)anthracene	0.024 U	ug/L	0.024	0.095
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Benzo(a)pyrene	0.024 U	ug/L	0.024	0.095
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	1.9 U	ug/L	1.9	7.6
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Phenol	0.048 UJ	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	1,4-Dioxane	0.52	ug/L	0.02	0.08
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9 U	ug/L	2.9	11
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Chrysene	0.024 U	ug/L	0.024	0.095

Date_Sampled	UDL	Station	Field_Sample_ID	SCH_Group	Component	Result	Units_Word_Result	MDL	PQL
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.024 U	ug/L	0.024	0.095
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Dimethyl phthalate	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Hexachloroethane	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	2,4-Dimethylphenol	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	2,6-Dinitrotoluene	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	2-Chlorophenol	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	4-Nitrophenol	9.5 U	ug/L	9.5	38
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Di-n-octyl phthalate	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Diethyl phthalate	1.9 U	ug/L	1.9	7.6
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Hexachlorocyclopentadiene	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	2,4-Dinitrotoluene	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	2-Chloronaphthalene	0.048 U	ug/L	0.048	0.19
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Acenaphthene	0.024 U	ug/L	0.024	0.095
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Anthracene	0.024 U	ug/L	0.024	0.095
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Priority Organic Pollutants	Benzo(b)fluoranthene	0.024 U	ug/L	0.024	0.095
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Nutrients	Temperature	21.9	C		
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Nutrients	Specific Conductance	1200	umhos/cm		
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Nutrients	pH	7.34			
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Nutrients	Dissolved Oxygen	42.1	%Sat		
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Overflow	Alpha-Counting Error	3.13	pCi/L	4.87	
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Overflow	Alpha, Total	4.87 U	pCi/L	4.87	
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Nutrients	pH	7.34			
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Nutrients	Dissolved Oxygen	42.1	%Sat		
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Nutrients	Temperature	21.9	C		
4/9/2018 9:20	effluent	Mosaic-Plant City	EFF-001	Nutrients	Specific Conductance	1200	umhos/cm		
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	AGP/LN	Algal Growth Potential	0.300 U	mg DryWt/L	0.3	0.9
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	3.2 J	ug/L	0.55	1.7
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Chlorophyll/Grain Size/BOD	Phaeophytin-a	1.1 IJ	ug/L	0.4	1.2
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Uncorrected	4.0 J	ug/L	0.4	1.2
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	0.68 I	mg/L	0.2	2
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Metals	Silver	0.010 U	ug/L	0.01	0.04
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Metals	Lead	0.15 I	ug/L	0.05	0.2
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Metals	Cadmium	0.021 I	ug/L	0.02	0.08
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Metals	Iron	140	ug/L	30	120

Date_Sampled	UDL	Station	Field_Sample_ID	SCH_Group	Component	Result	Units_Word_Result	MDL	PQL
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Metals	Aluminum	97 I	ug/L	60	240
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Metals	Selenium	0.87	ug/L	0.2	0.8
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Metals	Arsenic	0.84	ug/L	0.05	0.2
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Metals	Sodium	15.0	mg/L	0.5	2
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Metals	Copper	0.20 U	ug/L	0.2	0.8
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Metals	Chromium	0.58 I	ug/L	0.4	1.6
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Metals	Zinc	5.0 U	ug/L	5	20
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Metals	Nickel	0.44 I	ug/L	0.2	0.8
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Metals	Magnesium	5.53	mg/L	0.04	0.16
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Metals	Calcium	68.6	mg/L	0.075	0.3
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	O-Phosphate-P	0.25	mg P/L	0.004	0.01
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	Total Alkalinity	165	mg CaCO3/L	0.65	2.5
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	Color (true)	9.9	PCU	2.5	6
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	NO2NO3-N	1.5	mg N/L	0.04	0.1
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	Kjeldahl Nitrogen	0.31 J	mg N/L	0.08	0.2
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	Fluoride	0.25	mg F/L	0.035	0.1
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	Ammonia-N	0.005 I	mg N/L	0.002	0.005
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	Organic Carbon	2.6	mg C/L	0.5	1
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	Total-P	0.28	mg P/L	0.005	0.05
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	TDS	257	mg/L	15	25
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	Turbidity	1.1	NTU	0.1	0.13
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	Sulfate	30	mg SO4/L	0.2	0.5
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	TSS	10	mg/L	2	10
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	Chloride	19	mg Cl/L	0.2	0.5
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Phenol	0.048 UJ	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	1.9 U	ug/L	1.9	7.6
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Naphthalene	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.024 U	ug/L	0.024	0.095
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Fluoranthene	0.024 U	ug/L	0.024	0.095
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.024 U	ug/L	0.024	0.095
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	0.048 U	ug/L	0.048	0.19

Date_Sampled	UDL	Station	Field_Sample_ID	SCH_Group	Component	Result	Units_Word_Result	MDL	PQL
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Pentachlorophenol	0.48 U	ug/L	0.48	1.9
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Hexachlorocyclopentadiene	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.024 U	ug/L	0.024	0.095
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Di-n-octyl phthalate	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	2,4-Dinitrophenol	9.5 U	ug/L	9.5	38
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Diethyl phthalate	1.9 U	ug/L	1.9	7.6
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	2,4-Dinitrotoluene	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	2,6-Dinitrotoluene	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Anthracene	0.024 U	ug/L	0.024	0.095
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Di-n-butyl phthalate	1.9 U	ug/L	1.9	7.6
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Dimethyl phthalate	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Hexachlorobenzene	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Pyrene	0.024 U	ug/L	0.024	0.095
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Hexachloroethane	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Benzo(k)fluoranthene	0.024 U	ug/L	0.024	0.095
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Benzo(a)pyrene	0.024 U	ug/L	0.024	0.095
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	1,4-Dioxane	0.020 UY	ug/L	0.02	0.08
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	0.095 U	ug/L	0.095	0.38
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9 U	ug/L	1.9	7.6
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Hexachlorobutadiene	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Butyl benzyl phthalate	0.95 U	ug/L	0.95	3.8
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Benzo(b)fluoranthene	0.024 U	ug/L	0.024	0.095
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Acenaphthylene	0.024 U	ug/L	0.024	0.095
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	3,3'-Dichlorobenzidine	9.5 U	ug/L	9.5	38
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Phenanthrene	0.024 U	ug/L	0.024	0.095
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Isophorone	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Fluorene	0.024 U	ug/L	0.024	0.095
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Benzidine	9.5 U	ug/L	9.5	38
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	4-Nitrophenol	9.5 U	ug/L	9.5	38
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	2-Nitrophenol	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	2-Chloronaphthalene	0.048 U	ug/L	0.048	0.19

Date_Sampled	UDL	Station	Field_Sample_ID	SCH_Group	Component	Result	Units_Word_Result	MDL	PQL
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Chrysene	0.024 U	ug/L	0.024	0.095
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Benzo(a)anthracene	0.024 U	ug/L	0.024	0.095
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Acenaphthene	0.024 U	ug/L	0.024	0.095
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9 U	ug/L	2.9	11
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	2-Chlorophenol	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	2,4-Dimethylphenol	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	2,4-Dichlorophenol	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Priority Organic Pollutants	Nitrobenzene	0.048 U	ug/L	0.048	0.19
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	Temperature	23.3	C		
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	Sample Depth	0.3	m		
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	Specific Conductance	448.3	umhos/cm		
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	Dissolved Oxygen	86.2	%Sat		
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	pH	8.33			
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Overflow	Alpha-Counting Error	1.46	pCi/L	2	
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Overflow	Alpha, Total	2.24	pCi/L	2	
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	Temperature	23.3	C		
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	Sample Depth	0.3	m		
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	Dissolved Oxygen	86.2	%Sat		
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	Specific Conductance	448.3	umhos/cm		
4/9/2018 10:45	test site	Mosaic-Plant City	Hillsborough River State Park	Nutrients	pH	8.33			
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Metals	Calcium	0.075 U	mg/L	0.075	0.3
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Metals	Arsenic	0.050 U	ug/L	0.05	0.2
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Metals	Sodium	0.50 U	mg/L	0.5	2
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Metals	Zinc	5.0 U	ug/L	5	20
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Metals	Iron	30 U	ug/L	30	120
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Metals	Nickel	0.20 U	ug/L	0.2	0.8
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Metals	Cadmium	0.020 U	ug/L	0.02	0.08
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Metals	Magnesium	0.040 U	mg/L	0.04	0.16
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Metals	Silver	0.010 U	ug/L	0.01	0.04
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Metals	Selenium	0.20 U	ug/L	0.2	0.8
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Metals	Lead	0.050 U	ug/L	0.05	0.2
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Metals	Aluminum	60 U	ug/L	60	240
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Metals	Copper	0.20 U	ug/L	0.2	0.8
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Metals	Chromium	0.40 U	ug/L	0.4	1.6
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Nutrients	Kjeldahl Nitrogen	0.080 U	mg N/L	0.08	0.2

Date_Sampled	UDL	Station	Field_Sample_ID	SCH_Group	Component	Result	Units_Word_Result	MDL	PQL
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Nutrients	Turbidity	0.10 U	NTU	0.1	0.13
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Nutrients	Sulfate	0.20 U	mg SO4/L	0.2	0.5
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Nutrients	Chloride	0.20 U	mg Cl/L	0.2	0.5
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Nutrients	Total Alkalinity	0.65 U	mg CaCO3/L	0.65	2.5
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Nutrients	TSS	2 U	mg/L	2	10
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Nutrients	O-Phosphate-P	0.004 U	mg P/L	0.004	0.01
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Nutrients	Total-P	0.002 U	mg P/L	0.002	0.005
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Nutrients	NO2NO3-N	0.004 U	mg N/L	0.004	0.01
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Nutrients	TDS	15 U	mg/L	15	25
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Nutrients	Fluoride	0.035 U	mg F/L	0.035	0.1
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Nutrients	Ammonia-N	0.002 U	mg N/L	0.002	0.005
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Nutrients	Color (true)	2.5 U	PCU	2.5	6
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Nutrients	Organic Carbon	0.50 U	mg C/L	0.5	1
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Chlorpyrifos Methyl	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Metribuzin	0.019 U	ug/L	0.019	0.076
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Prometon	0.019 U	ug/L	0.019	0.076
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Hexazinone	0.028 UJ	ug/L	0.028	0.11
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Malathion	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Atrazine Desisopropyl	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Demeton	0.023 U	ug/L	0.023	0.091
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Disulfoton	0.0047 U	ug/L	0.0047	0.019
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Ethion	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Fonofos	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Metalaxyl	0.038 UJ	ug/L	0.038	0.15
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Alachlor	0.057 U	ug/L	0.057	0.23
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Fenamiphos	0.028 UJ	ug/L	0.028	0.11
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Atrazine Desethyl	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Ethoprop	0.0047 U	ug/L	0.0047	0.019
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Phorate	0.0047 U	ug/L	0.0047	0.019
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Mevinphos	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Naled	0.038 U	ug/L	0.038	0.15
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Parathion Methyl	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Bromacil	0.038 UJ	ug/L	0.038	0.15
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Butylate	0.019 U	ug/L	0.019	0.076
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Diazinon	0.0095 U	ug/L	0.0095	0.038

Date_Sampled	UDL	Station	Field_Sample_ID	SCH_Group	Component	Result	Units_Word_Result	MDL	PQL
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Norflurazon	0.028 U	ug/L	0.028	0.11
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Prometryn	0.019 UJ	ug/L	0.019	0.076
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Simazine	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Ametryn	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Atrazine	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Azinphos Methyl	0.019 U	ug/L	0.019	0.076
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Chlorpyrifos Ethyl	0.0095 U	ug/L	0.0095	0.038
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Metolachlor	0.057 U	ug/L	0.057	0.23
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Pesticides	Parathion Ethyl	0.019 U	ug/L	0.019	0.076
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	2,4-Dinitrophenol	9.4 U	ug/L	9.4	38
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	3,3'-Dichlorobenzidine	9.4 U	ug/L	9.4	38
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Diethyl phthalate	1.9 U	ug/L	1.9	7.5
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Hexachlorobenzene	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Phenanthrene	0.024 U	ug/L	0.024	0.094
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	2,4-Dimethylphenol	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Isophorone	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.024 U	ug/L	0.024	0.094
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Di-n-butyl phthalate	1.9 U	ug/L	1.9	7.5
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Benzo(k)fluoranthene	0.024 U	ug/L	0.024	0.094
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Hexachloroethane	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Fluorene	0.024 U	ug/L	0.024	0.094
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	2,4-Dichlorophenol	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	2,4-Dinitrotoluene	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	2-Chloronaphthalene	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	4-Nitrophenol	9.4 U	ug/L	9.4	38
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Di-n-octyl phthalate	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Hexachlorocyclopentadiene	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	2-Chlorophenol	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Acenaphthylene	0.024 U	ug/L	0.024	0.094
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Chrysene	0.024 U	ug/L	0.024	0.094
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Pentachlorophenol	0.47 U	ug/L	0.47	1.9

Date_Sampled	UDL	Station	Field_Sample_ID	SCH_Group	Component	Result	Units_Word_Result	MDL	PQL
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	2-Nitrophenol	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Benzidine	9.4 U	ug/L	9.4	38
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Benzo(a)anthracene	0.024 U	ug/L	0.024	0.094
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	1.9 U	ug/L	1.9	7.5
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.024 U	ug/L	0.024	0.094
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Pyrene	0.024 U	ug/L	0.024	0.094
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	1,4-Dioxane	0.020 U	ug/L	0.02	0.08
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	2,6-Dinitrotoluene	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Acenaphthene	0.024 U	ug/L	0.024	0.094
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Anthracene	0.024 U	ug/L	0.024	0.094
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Fluoranthene	0.024 U	ug/L	0.024	0.094
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Hexachlorobutadiene	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	0.094 U	ug/L	0.094	0.38
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Nitrobenzene	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Phenol	0.047 UJ	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Butyl benzyl phthalate	0.94 U	ug/L	0.94	3.8
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9 U	ug/L	1.9	7.5
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Naphthalene	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.8 U	ug/L	2.8	11
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Benzo(a)pyrene	0.024 U	ug/L	0.024	0.094
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Benzo(b)fluoranthene	0.024 U	ug/L	0.024	0.094
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.024 U	ug/L	0.024	0.094
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Priority Organic Pollutants	Dimethyl phthalate	0.047 U	ug/L	0.047	0.19
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Overflow	Alpha, Total	0.965 U	pCi/L	0.965	
4/9/2018 9:00	Field Blank	Mosaic-Plant City	Field Blank	Overflow	Alpha-Counting Error	0.446	pCi/L	0.965	
4/8/2018 13:30	Tox 1	Mosaic-Plant City	EFF-001-TOX-1	Toxicology	Bioassay-Acute-Def-FW-Fish, LC50	100 L	LC50		
4/8/2018 13:30	Tox 1	Mosaic-Plant City	EFF-001-TOX-1	Toxicology	Bioassay-Acute-Def-FW-C.dubia, LC50	100 L	LC50		
4/8/2018 13:30	Tox 1	Mosaic-Plant City	EFF-001-TOX-1	Nutrients	Dissolved Oxygen	31.0	%Sat		
4/8/2018 13:30	Tox 1	Mosaic-Plant City	EFF-001-TOX-1	Nutrients	Specific Conductance	1200	umhos/cm		
4/8/2018 13:30	Tox 1	Mosaic-Plant City	EFF-001-TOX-1	Nutrients	pH	7.43			

Date_Sampled	UDL	Station	Field_Sample_ID	SCH_Group	Component	Result	Units_Word_Result	MDL	PQL
4/8/2018 13:30	Tox 1	Mosaic-Plant City	EFF-001-TOX-1	Nutrients	Temperature	21.9	C		
4/8/2018 19:40	Tox 2	Mosaic-Plant City	EFF-001-TOX-2	Toxicology	Bioassay-Acute-Def-FW-C.dubia, LC50	100	LC50		
4/8/2018 19:40	Tox 2	Mosaic-Plant City	EFF-001-TOX-2	Toxicology	Bioassay-Acute-Def-FW-Fish, LC50	100 L	LC50		
4/8/2018 19:40	Tox 2	Mosaic-Plant City	EFF-001-TOX-2	Nutrients	Temperature	21.9	C		
4/8/2018 19:40	Tox 2	Mosaic-Plant City	EFF-001-TOX-2	Nutrients	pH	7.43			
4/8/2018 19:40	Tox 2	Mosaic-Plant City	EFF-001-TOX-2	Nutrients	Specific Conductance	1200	umhos/cm		
4/8/2018 19:40	Tox 2	Mosaic-Plant City	EFF-001-TOX-2	Nutrients	Dissolved Oxygen	31.0	%Sat		
4/9/2018 1:35	Tox 3	Mosaic-Plant City	EFF-001-TOX-3	Toxicology	Bioassay-Acute-Def-FW-C.dubia, LC50	100 L	LC50		
4/9/2018 1:35	Tox 3	Mosaic-Plant City	EFF-001-TOX-3	Toxicology	Bioassay-Acute-Def-FW-Fish, LC50	100 L	LC50		
4/9/2018 1:35	Tox 3	Mosaic-Plant City	EFF-001-TOX-3	Nutrients	Temperature	21.9	C		
4/9/2018 1:35	Tox 3	Mosaic-Plant City	EFF-001-TOX-3	Nutrients	Dissolved Oxygen	31.0	%Sat		
4/9/2018 1:35	Tox 3	Mosaic-Plant City	EFF-001-TOX-3	Nutrients	pH	7.43			
4/9/2018 1:35	Tox 3	Mosaic-Plant City	EFF-001-TOX-3	Nutrients	Specific Conductance	1200	umhos/cm		
4/9/2018 8:30	Tox 4	Mosaic-Plant City	EFF-001-TOX-4	Toxicology	Bioassay-Acute-Def-FW-C.dubia, LC50	100 L	LC50		
4/9/2018 8:30	Tox 4	Mosaic-Plant City	EFF-001-TOX-4	Toxicology	Bioassay-Acute-Def-FW-Fish, LC50	100 L	LC50		
4/9/2018 8:30	Tox 4	Mosaic-Plant City	EFF-001-TOX-4	Nutrients	pH	7.43			
4/9/2018 8:30	Tox 4	Mosaic-Plant City	EFF-001-TOX-4	Nutrients	Temperature	21.9	C		
4/9/2018 8:30	Tox 4	Mosaic-Plant City	EFF-001-TOX-4	Nutrients	Specific Conductance	1200	umhos/cm		
4/9/2018 8:30	Tox 4	Mosaic-Plant City	EFF-001-TOX-4	Nutrients	Dissolved Oxygen	31.0	%Sat		