

Biological Assessment of

Telogia Power LLC

Liberty County

NPDES # FL0039951

Sampled September 9, 2013

April 2014

Biology Section

Bureau of Laboratories

Division of Environmental Assessment and Restoration

2014 FDEP Bureau of Laboratories Quality Manual

NELAC Certification No. E31780

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Facility Overview

Telogia Power LLC operates a 14 megawatt (MW) carbonaceous-fueled power generating facility. The facility constructed a manmade wetland treatment system to enable the effluent to meet the final water quality limitations in the Industrial Wastewater discharge permit. The treatment system consists of two wetland cells that have a shallow planted area and deep zone. The non-process wastewater is collected in an existing 50,000 gallon concrete basin and pumped to the wetland treatment cells where it slowly flows through the cells (residence time of approximately 11 days), receives treatment and eventually discharges off site. The effluent is discharged into an unnamed tributary that flows to Stokes Branch, a Class III Fresh Water (see map Appendix A). Stokes Branch flows to Telogia Creek which is also a Class III Fresh Water. The permitted design flow of the wastewater system is 0.134 million gallons per day (MGD). The annual average flow for September 2012 to August 2013 was 0.0803 MGD. Treated effluent is intermittently discharged, and the flow measured during this survey was 0.167 MGD (Northwest District Office sampling staff). The facility was discharging at the time the sample was collected.

Biological assessments are prepared by FDEP 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.

See the Facility Summary (Appendix B) for a description of the facility, summary of permit limits, Administrative Order (AO), Consent Order (CO), and Discharge Monitoring Report (DMR) information. This facility is operating under an Administrative Order (AO057NW) which gives an interim limit for specific conductance and a Consent Order (CO 08-0367) which gives interim limits for copper, temperature, and toxicity.

Methods

The purpose of this investigation was to determine the discharge's effects on the biota of the receiving waters. Chemical and biological comparisons were made between a Control Site (located in Big Cypress Branch approximately 1 km southwest of the facility) and a Test Site (located in Stokes Branch approximately 174 m downstream of the point of discharge). Effluent samples were taken as grab samples from monitoring location EFF-3.

All field and laboratory biological methods followed Bureau of Laboratories and Biology Section Standard Operating Procedures (see http://www.dep.state.fl.us/labs/library/lab_sops.htm and http://www.dep.state.fl.us/water/sas/sop/sops.htm for details) and met DEP quality assurance/quality control standards (see http://www.dep.state.fl.us/water/sas/qa/index.htm). Explanations of specific methods and measurements can be found in Appendix C.

The following were involved in this investigation: Cheryl Swanson, Harris Walters, Jennifer Weger, and Marcel Goss (sample collection), and FDEP Central Laboratory in Tallahassee. The report was reviewed by District representatives and the Point Source Studies Review Committee (Mike Tanski, Andrew Tintle, and Jennifer Weger).

Results

Organic Constituents (See Table 1 and Appendix F)

- No organic constituents were detected in the effluent or the field blank.

Nutrients (See Table 1 and Appendix F)

- Unionized ammonia measured from the effluent grab sample complied with the Class III Freshwater Quality Criterion (62-302.530, F.A.C.) and the permit limit.
- Ortho-phosphate was detected in the effluent and Test Site grab samples, but not in the Control Site grab sample. Total phosphorus was detected at higher levels in the effluent and Test Site grab samples than in the Control Site grab sample.
- Nitrate+nitrite was detected in the effluent and Test Site grab samples but was not detected in the Control Site grab sample.
- Total ammonia, total Kjeldahl nitrogen, organic nitrogen, and total nitrogen were detected at higher levels in the Control Site grab samples than in the effluent or Test Site grab samples.
- Total organic carbon in the Control Site grab sample was detected at a level more than twice that in the effluent or Test Site grab samples.

Physical and Chemical Parameters (See Table 1 and Appendices D, E and F)

- Habitat Assessment scores were similar at the Control Site (82) and Test Site (81), which places both sites in the Suboptimal category. Both sites had low substrate diversity and availability, as well as habitat smothering. The water velocity was rated marginal at the Control Site and poor at the Test Site.
- Specific conductance of the effluent (1,537 µmhos/cm) and the Test Site (1,440 µmhos/cm) exceeded the Class III Freshwater Quality Criterion (62-302.530(22), F.A.C.). The facility is under an Administrative Order that gives an interim limit of "Report" for specific conductance. Control Site specific conductance complied with the Class III Freshwater Quality Criterion (62-302.530, F.A.C.)
- Dissolved oxygen (% saturation and mg/L) of the effluent complied with Class III Freshwater Quality Criterion (62-302.530, F.A.C.) and effluent permit limits. Dissolved oxygen of the Control Site (26.9% saturation and 2.3 mg/L) and Test Site (36.6 % saturation and 3.1 mg/L) failed to meet the Class III Freshwater Quality Criterion (62-302.530(30), F.A.C.).
- Control Site pH (Standard Units) was below the minimum limit for the Class III Freshwater Quality Criterion (62-302-530, F.A.C.) but is not considered to be an exceedance since pH is naturally low in this area. The Control Site pH should not be considered as the background for evaluating compliance of the Test Site pH. More data needs to be collected to make that determination. Effluent grab sample and Test Site pH complied with the Class III Freshwater Quality Criterion (62-302.530, F.A.C.).
- Chlorophyll *a* (corrected) was detected at a higher level in the effluent grab sample than in the Test Site grab sample and was undetected in the Control Site grab sample.
- Total residual chlorine (TRC) detected in the effluent (0.37 mg/L) exceeded the Class III Freshwater Quality Criterion (62-302.530(18), F.A.C.) and the permitted limit. The TRC detected in the effluent by the facility inspector on October 11, 2013 was 0.037 mg/L.
- Total Suspended Solids (TSS; mg/L) of the effluent complied with permit limits.

Toxicity Whole Effluent Test (See Table 1)

- Tests were performed September 10 through 14, 2013.
- The effluent sample LC_{50} for the fish, *Cyprinella leedsi*, and the LC_{50} for the water flea, *Ceriodaphnia dubia*, during the 96-hour acute definitive bioassays were calculated as being greater than 100% effluent, and therefore, complied with effluent permit limits.
- For more information or to obtain copies of the toxicity bench sheets, please contact the Biology Laboratory at 850-245-8177.

Metals (See Table 2 and Appendix F)

- All metals detected in the effluent grab samples were present at levels that complied with effluent permit limits and Class III Freshwater Quality Criteria (62-302.530, F.A.C.).
- Control Site iron (2,790 µg/L) and lead (1.22 µg/L) exceeded Class III Freshwater Quality Criterion (62-302.530(38), F.A.C. and 62-302.530(39), F.A.C., respectively). All other metals detected in the Control Site grab samples complied with Class III Freshwater Quality Criteria (62-302.530, F.A.C.).
- All metals in the 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 3 and Appendix F)

- Raschke and Shultz (1987) determined that AGP values above 5.0 mg dry weight/L, which represents a "problem" threshold for fresh receiving waters, imply nutrient enrichment. The AGP value in the effluent sample using the freshwater species, *Pseudokirchneriella subcapitata,* was slightly higher than the problem threshold value. The analytical chemistry suggests that the effluent is nitrogen-limited.
- The AGP in the Control Site sample using the freshwater species, *Pseudokirchneriella subcapitata*, was below the method detection limit.
- The AGP value in the Test Site sample using the freshwater species, *Pseudokirchneriella subcapitata,* was slightly higher than the problem threshold value. The analytical chemistry suggests that the Test Site is nitrogen-limited.

Bioassessment

Macroinvertebrates (See Table 4)

- Quantitative macroinvertebrate data were collected from Hester Dendy samplers at the Control and Test Sites. While the Shannon-Weaver diversity scores were similar at the Control and Test Sites (3.13 and 3.12, respectively), the Control Site sample had only 58 individuals compared to 903 in the Test Site sample. The Shannon-Weaver diversity score has the potential for negative bias when calculated from a sample with less than 300 individuals (Lande 1996). The Control Site was dominated by dipterans and isopods, while the Test Site was dominated by dipterans and gastropods.
- For more information or to obtain a copy of the taxa lists, please contact the Biology Laboratory at 850-245-8177.

Conclusion

Specific conductance of the effluent and Test Site exceeded Class III Freshwater Quality Criterion (62-302.530(22), F.A.C.). Total residual chlorine detected in the effluent exceeded Class III Freshwater Quality Criterion (62-302.530(18), F.A.C.) and the permit limit. Dissolved oxygen of the Control and Test Sites failed to meet Class III Freshwater Quality Criterion (62-302.533, F.A.C.). Control Site iron and lead exceeded Class III Freshwater Quality Criterion (62-302.530(38), F.A.C and 62-302.530(39), F.A.C, respectively). Nutrient grab samples indicate that the effluent may be contributing to phosphorus enrichment at the Test Site. The effluent and Test Site AGP values were above the problem threshold while the Control Site AGP was below the method detection limit; thus the effluent may be enriching this portion of Stokes Branch. Any effects on macroinvertebrates at the Test Site due to the effluent were unable to be detected due to poor habitat quality at both the Control and Test Sites.

Literature Cited

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Miller, W. E., T. E. Maloney, and J. C. Greene. 1978. The *Selenastrum capricornutum* Printz algal assay bottle test. EPA-600/9-78-018. U. S. EPA, Cincinnati, Ohio. 126 p.

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Table 1. Effluent limits, Class III Freshwater Criteria, and chemical and toxicological data

Telogia Power LLC	Class III Criteria	Effluent Limits	Effluent	Control Site	Test Site	Field Blank
Organic Constituents (µg/L)						
None Detected	-	-	None Detected			
Nutrients (mg/L)						
Ortho-phosphate	-	-	0.32	0.004 U	0.41	0.004 U
Total Phosphorus	-	-	0.48	0.037	0.56	0.002 U
Total Ammonia	-	Report	0.055	0.076	0.055	0.002 U
Un-ionized Ammonia	≤ 0.02 s	≤ 0.02	< 0.02 c	< 0.02 c	< 0.02 c	-
Nitrate and Nitrite	-	-	0.031	0.020 U	0.048	0.004 U
Total Kjeldahl Nitrogen	-	-	0.94	1.5	0.93	0.080 U
Organic Nitrogen	-	-	0.89 c	1.4 c	0.88 c	0.04 c
Total Nitrogen	-	-	0.97 c	1.5 c	0.98 c	0.04 c
Total Organic Carbon	-	-	19	49	19	0.50 U
General Physical and Chemical Parameters						
Habitat Assessment	-	-	-	82	81	-
Dissolved Oxygen (% saturation)	≥ 67	-	70.8 c	26.9	36.6	-
pH (SU)	6.0 - 8.5	6.0 - 8.5	7.6	3.7	7.5	-
Specific Conductance (µmhos/cm)	≤ 1,275	Report	1,537	61.5	1,440	-
Temperature (°C)	-	Report	27.5	25.2	24.8	-
Salinity (ppt)	-	-	< 0.73 c	< 0.03 c	< 0.72 c	-
Sample Depth (m)	-	-	0.1	-	-	-
Total Residual Chlorine (mg/L)	≤ 0.01	≤ 0.01	0.37	-	-	-
Chlorophyll *a* (µg/L) - Corrected	-	-	7.3	0.69 U	3.8	-
Phaeophytin (µg/L)	-	-	0.40 U	0.50 U	0.40 U	-
Total Suspended Solids (mg/L)	-	≤ 60.0 Σ	4 I	30	4 I	-
Turbidity (NTU)	< 29 t	-	1.3	13	1.4 A	0.10 U
Color (true, PCU)	-	-	48 A	510	51	2.5 U
Alkalinity (mg CaCO3/L)	-	-	328	0.65 U	328	0.65 U
CBOD, 5 day (mg/L), N - inhibited	-	-	1.2 I	0.79 I	0.51 I	-
Chloride (mg/L)	-	-	33	3.2	34	0.20 U
Fluoride (mg/L)	≤ 10.0	-	0.40	0.035 U	0.37	0.035 U
Sulfate (mg/L)	-	-	420	0.20 U	400	0.20 U
Flow (MGD)	-	Report	-	-	-	-
Hardness (mg $CaCO_3$)	-	Report	588	2.0 c	550 c	0.50 I
Toxicity (96 Hour Acute Definitive, LC50, % effluent)						
Bioassay - Water flea *(Ceriodaphnia dubia)*	-	Report	> 100	-	-	-
Bioassay - Fish *(Cyprinella leedsi)*	-	Report	> 100	-	-	-

Table 1 qualifiers

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

Value exceeds the Class III Water Quality Criteria or permit limits

c - Value is calculated

t - Shall not exceed 29 NTUs above background

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

I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit

L - Actual value is known to be greater than value given (Appears in Appendix F)

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

LC50 - Calculated or observed concentration in which mortality occurs in 50 % of the organisms

£ - measurement taken in the FDEP laboratory

Σ - Permit limit for monitoring location OUI-2 (Internal monitoring point - discharge spillway from ash pile sediment basin)

Table 2. Effluent limits, Class III Freshwater Criteria and metals data - Class III Criteria based on hardness are presented individually for each site based on hardness at that site

Telogia Power LLC	Effluent Class III Criteria	Effluent Limits	Effluent	Control Site Class III Criteria	Control Site	Test Site Class III Criteria	Test Site	Field Blank
Metals (µg/L unless otherwise noted)								
Aluminum	-	-	96	-	1,540	-	77	5.0 U
Arsenic	≤ 50	-	4.36	≤ 50	0.51 I	≤ 50	4.26	0.25 U
Cadmium	≤ 0.756 b	-	0.050 U	≤ 0.10 b	0.050 U	≤ 0.76 b	0.050 U	0.050 U
Calcium (mg/L)	-	-	182	-	0.33	-	170	0.17 I
Chromium, total	≤ 268 bψ	-	0.83 I	≤ 28 bψ	1.3	≤ 270 bψ	0.75 I	0.30 U
Copper	≤ 30.5 b	Report	3.84	≤ 2.9 b	0.50 U	≤ 30 b	1.68	0.50 U
Iron	≤ 1,000	-	210	≤ 1,000	2,790	≤ 1,000	220	30 U
Lead	≤ 18.6 b	-	0.34 I	≤ 0.54 b	1.22	≤ 19 b	0.20 U	0.20 U
Magnesium (mg/L)	-	-	32.3	-	0.28	-	30.8	0.040 U
Nickel	≤ 169 b	-	1.23	≤ 16 b	0.90 I	≤ 170 b	1.06	0.25 U
Potassium (mg/L)	-	-	93.0	-	0.30 U	-	100	0.30 U
Selenium	≤ 5.0	-	0.20 U	≤ 5.0	0.25 I	≤ 5.0	0.20 U	0.20 U
Silver	≤ 0.07	-	0.025 U	≤ 0.07	0.025 U	≤ 0.07	0.025 U	0.025 U
Sodium (mg/L)	-	-	55.3	-	2.2	-	54.2	0.50 U
Zinc	≤ 388 b	-	5.0 U	≤ 37 b	5.0 U	≤ 390 b	5.0 U	5.0 U

See Table 1 for calculated hardness.
A dash (-) indicates sample/measurement was not collected or criterion/limit does not exist.

Value exceeds the Class III Water Quality Criteria or permit limits
b - Value is calculated based on hardness
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
ψ - Class III Freshwater Quality Criterion (62-302.530(19)(a), F.A.C.) for chromium-III

Table 3. Measured and predicted algal growth potential (AGP; mg dry weight/L) for total soluble inorganic nitrogen (TSIN), total nitrogen (TN), and total phosphorus (TP) limitation of the freshwater species *Pseudokirchneriella subcapitata* and ratios of nitrogen to phosphorus

Telogia Power LLC						
Location	**AGP (measured)**	**Predicted AGP (TSIN) ± 20%**	**Predicted AGP (TN) ± 20%**	**Predicted AGP (TP) ± 20%**	**Inorganic N:P ratio**	**Total N:P ratio**
Effluent	6.56 A	3.3 ± 0.7	36.9 ± 7.4	-	0.3	2.0
Control Site	0.300 U	-	-	15.9 ± 3.2	-	-
Test Site	7.04	3.9 ± 0.8	37.2 ± 7.4	-	0.3	1.7

A dash (-) indicates that the predicted AGP/ratio is not applicable.

A - Value reported is the mean of two or more determinations
U - Material analyzed for but not detected; value reported is the method detection limit

Table 4. Macroinvertebrate Hester-Dendy samples - quantitative

Telogia Power LLC	Control Site	Test Site
Summary Statistics		
Shannon-Weaver Diversity	3.13	3.12
Number of Taxa	15	33
Number of EPT Taxa	1	1
Percent Dominant Taxon	36.0	43.3
Dominant Taxon Name	*Caecidotea sp.* (Isopoda)	*Hebetancylus excentricus* (Gastropoda)
Total Number of Individuals (counted)	58*	903
Total Number of Individuals (#/m^2)	116	1,795
Community Composition: Percent of total		
Amphipoda	1.7	0.1
Bivalvia	0.0	0.2
Coleoptera	3.5	0.0
Diptera	44.8	51.2
Ephemeroptera	1.7	2.3
Gastropoda	8.6	45.9
Isopoda	39.4	0.0
Odonata	0.0	0.2
Other	0.3	0.1
Functional Feeding Groups: Percent of total		
Browser-Grazers	1.7	0.0
Predators	14.7	6.2
Scavengers	21.4	0.0
Scrapers	9.5	47.1
Shredders	9.3	9.0
Surface Deposit Feeders	43.1	30.3
Suspension Feeders	0.0	3.8
Unknown	0.0	3.6

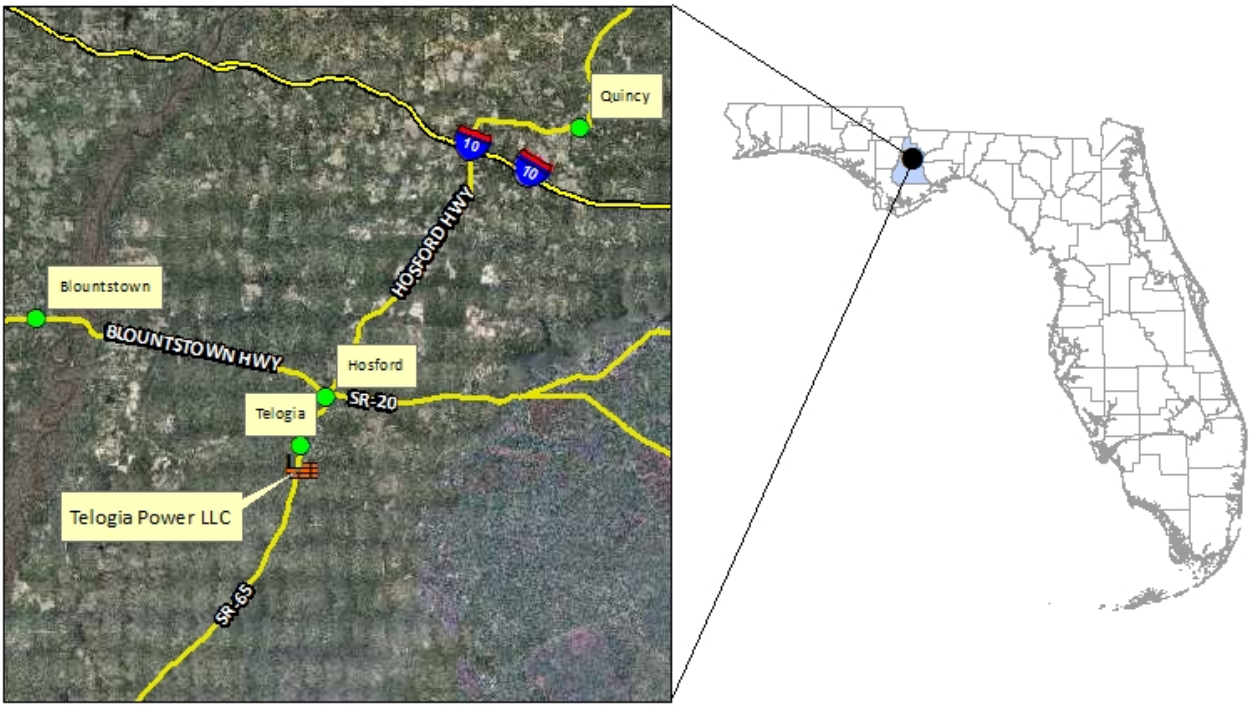
* - Shannon Weaver Diversity scores calculated on samples with < 300 individuals have the potential for negative bias (lower diversity scores compared to sites with more individuals) (Lande 1996).

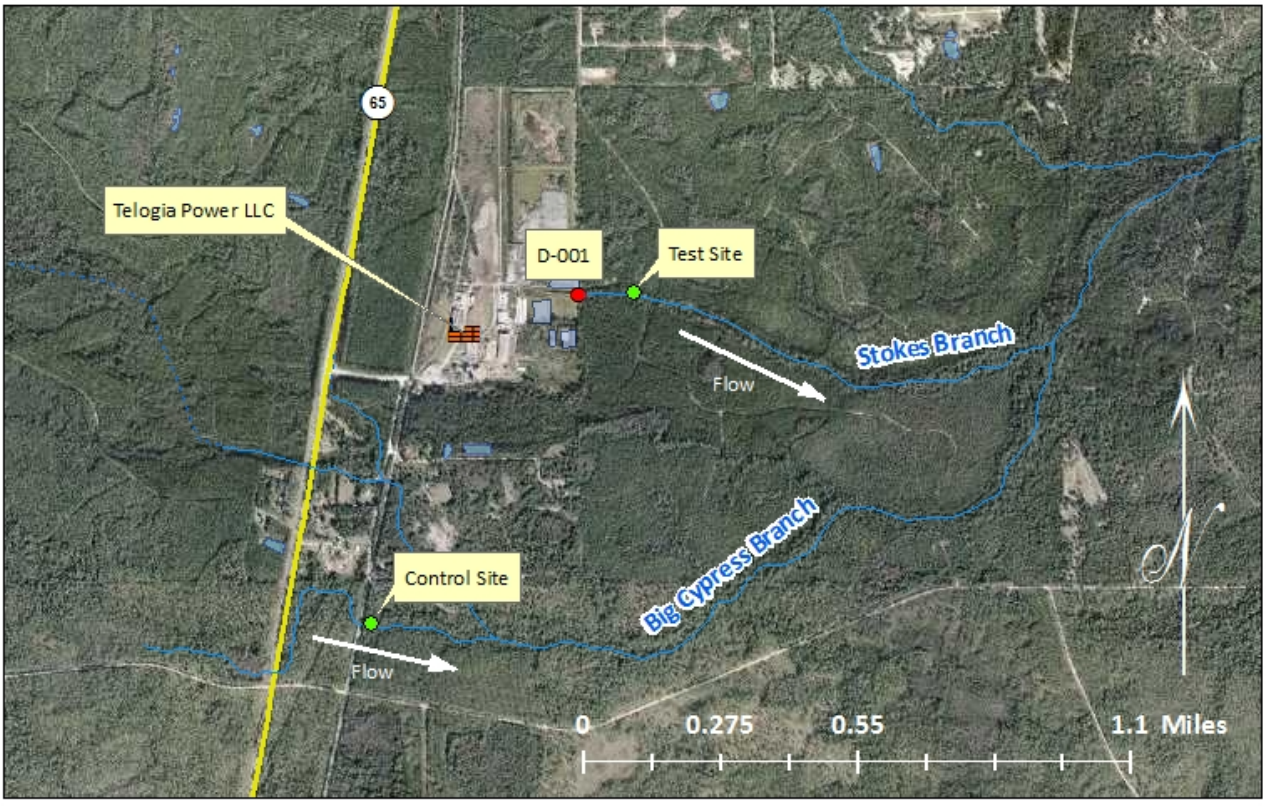
Appendix A

Map of Facility

Telogia Power LLC

Fifth Year Bioassessment Sampling Locations





Appendix B

Facility Summary

State of Florida
Department of Environmental Protection

Facility Introduction & Summary

PART I: Information gathered prior to sampling event	
Prepared By: Nathan Mulkey	**Contact Number:** 850 595 0626
Facility Name (as it appears on permit): Telogia Power LLC	**Former Names:** DG Energy Solutions
NPDES Permit Number: FL0039951	**Permit Expiration Date:** January 27, 2015
Physical Address: Telogia Power LLC 20082 NE CJ Bailey Industrial Park Telogia, Fl. 32360	
District: NWD	**County:** Liberty
Function of Facility: permitted to burn paper, wood, wood waste, peanut hulls and non-chlorinated plastics	
Facility Type: IW (power plant)	**Permitted Capacity (MGD):** 0.134
Mean Flow for previous 12 months for all EXTERNAL outfalls listed in permit (list date range including months):	
If applicable, Mean Flow for previous 12 months for REUSE outfall(s) (list date range including months):	
Description of type of Discharge: ☐ **Continuous** ☒ **Intermittent** ☐ **Seasonal** ☐ **Rainfall Dependent** ☐ **Other, please specify**	

Actual permit designation of permitted sampling point(s):

2. Effluent samples shall be taken at the monitoring site locations listed in permit condition I.A.1 and as described below. All samples at Sample Point EFF-3 shall be collected while there is flow from the discharge box. If the heated discharge is shut down during the monitoring period monitoring at EFF-3 shall still be conducted.

Sample Point	Description of Monitoring Location
OUI-2	Internal monitoring point discharge spillway from ash pile sediment basin
EFF-3	Point of Discharge (POD) (D-001)
OTH-1	Rain gauge
SWB-1	Background in Telogia Creek SR 65 (upgradient)

Description of Permitted Outfall(s):

Surface Water Discharge:

An existing, intermittent discharge consisting of non-process wastewater from the treatment wetland, ash pile sediment basins and an unmeasured volume of stormwater from the drainage ditch. The combined effluent flows via the east-west drainage ditch to the point of discharge at the former east property line, Outfall D-001.

Outfall D-001 is located approximately at latitude 30° 20' 14.15 N, longitude 84° 48' 51.27" W. The discharge is to an unnamed tributary (TRIB) that flows approximately 5,100 feet to the Stokes Branch (Class III Fresh waters); the Stokes Branch flows to Telogia Creek (Class III Fresh waters).

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

WASTEWATER TREATMENT:

The wastewater treatment system consists of a temperature stabilization and transfer pump station, a 50,000 gallon covered, concrete lined cooling basin with a recirculation and aeration system, a discharge pump and a discharge box with a v-notch weir. Cooling tower blowdown and neutralized demineralizer backwash water gravity drain into the transfer pump station and are then pumped to the cooling basin. The temperature and pH of the wastewater are adjusted in the cooling basin prior to discharge; treated wastewater is discharged from the cooling basin in batches two or three times per day from the discharge box via a v-notch weir.

A drainage ditch runs through the plant property and it collects and transports stormwater for discharge from the property. Stormwater runoff from two ash piles is collected in two sedimentation basins; the basins discharge intermittently via an overflow spillway into the drainage ditch.

Wastewater from the treatment wetland, stormwater from the ash pile sedimentation basins and stormwater from the plant property converge and commingle in the east-west section of the drainage ditch. The combined effluent flows via the east-west drainage ditch to an unnamed tributary (TRIB).

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)

Outfall D-001 (WAFR ID 1061)	**Discharge Limitations**			**Monitoring Requirements**		
Parameters (units)	**Monthly Average**	**Daily Maximum**	**Other**	**Monitoring Frequency**	**Sample Type**	**Sample Point**
Flow (MGD)	Report	Report	NA	Continuous	Recorder	EFF-3
Temperature, Ambient (DEG.F)	Report	Report	NA	Continuous	Recorder	SWB-1
Temperature, Water (DEG.F)	Report	Report	NA	Continuous	Recorder	EFF-3
Temp, Difference (Water –Ambient)	Report	**Report**		Continuous	Calculated	OTH-2
Interim Limit per CO						
Specific Conductance (µMHOS/CM)		**Report**		Weekly	Grab	EFF-3
Interim Limit per AO						
Copper, Total Recoverable (µG/L)		**Report**		Weekly	Grab	EFF-3
Interim Limit per CO						
Hardness, (as $CaCO_3$) (MG/L)		Report		Weekly	Grab	EFF-3
Nitrogen, Ammonia, Total (as N) (MG/L)	Report	Report		Weekly	Grab	EFF-3
SEE NOTE 2						
Ammonia, Unionized (as NH_3) (MG/L)	0.02	0.02		Weekly	Calculated	EFF-3
SEE NOTE 2						
Chlorine, Total Residual (MG/L)		0.01		Weekly	Grab	EFF-3
pH (SU)		8.5	6.0 Minimum	Daily	Grab	EFF-3
SEE NOTE 2						
Solids, Total Suspended (MG/L)	30.0	60.0	20.0 Annual Ave.	Weekly	Grab	OUI-2
Rainfall (INCHES)			Report Mo. Total	Daily	Meter	OTH-1
Whole Effluent Toxicity SEE NOTE 2		See Permit Condition I.A.4		--	--	EFF-3

Note 2. Ammonia grab, pH and temperature samples must be taken at the same time and location as the unionized ammonia sample.

PART I: Continued

Receiving Waters:	**Classification (indicate whether fresh or marine):**
The discharge is to an unnamed tributary (TRIB) that flows approximately 5,100 feet to the Stokes Branch (Class III Freshwaters); the Stokes Branch flows to Telogia Creek (Class III Fresh waters).	**Fresh**

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

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

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review and approval prior to use. In the event the above method is revised, the permittee shall conduct acute toxicity testing in accordance with the revised method.
(4) The control water and dilution water shall be moderately hard water as described in EPA-821-R-02-012, Table 7.

e. Quality Assurance Requirements
(1) A standard reference toxicant (SRT) quality assurance (QA) acute toxicity test shall be conducted with each species used in the required toxicity tests either concurrently or initiated no more than 30 days before the date of each routine or additional follow-up test conducted. Additionally, the SRT test must be conducted concurrently if the test organisms are obtained from outside the test laboratory unless the test organism supplier provides control chart data from at least the last five monthly acute toxicity tests using the same reference toxicant and test conditions. If the organism supplier provides the required SRT data, the organism supplier's SRT data and the test laboratory's monthly SRT-QA data shall be included in the reports for each companion routine or additional follow-up test required.
(2) If the mortality in the control (0% effluent) exceeds 10% for either species in any test, the test for that species (including the control) shall be invalidated and the test repeated. The repeat test shall begin within 14 days after the last day of the invalid test.
(3) If 100% mortality occurs in all effluent concentrations for either species prior to the end of any test and the control mortality is less than 10% at that time, the test (including the control) for that species shall be terminated with the conclusion that the test fails and constitutes non-compliance.
(4) Routine and additional follow-up tests shall be evaluated for acceptability based on the concentration-response relationship, as required by EPA-821-R-02-012, Section 12.2.6.2., and included with the bioassay laboratory reports.

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

Adminstrative Order No. AO057NW: Gives interim limit for specific conductance until December 31, 2013. A request to extend this date has been received.

CO 08-0367 was issued on 9/1/09 for reported violations of the effluent quality limits for acute toxicity, copper, flow, pH, temperature and unionized ammonia on numerous occasions from July 2005 through December 2007. The CO gave interim limits for copper, temperature and toxicity. The CO was amended on 6/29/2011 and 12/6/12 to include additional violations for temperature and change the interim limit of "Report Only" for temperature until 12/31/2013, respectively. A request to extend this date has been received.

Facility Mixing Zone Details (if applicable):

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

Date	Parameter and Units	Limit	Result
10/2012 **6/2013**	**Unionized ammonia** **TSS**	**.02 mg/L** **30 mg/L**	**.025 mg/L** **31 mg/L**

Describe previous FYI and WQBEL study:

Describe previous or current Enforcement Actions (including WLs):

CO 08-0367 was issued on 9/1/09 for reported violations of the effluent quality limits for acute toxicity, copper, flow, pH, temperature and unionized ammonia on numerous occasions from July 2005 through December 2007. The CO gave interim limits for copper, temperature and toxicity. The CO was amended on 6/29/2011 and 12/6/12 to include additional violations for temperature and change the interim limit of "Report Only" for temperature until 12/31/2013, respectively. A request to extend this date has been received.

Describe any violations or problems noted in previous inspection:

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

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

Current treatment at the Telogia Facility, which occurs at the basin before being discharged, is addition of make-up water from the non-potable well to reduce temperature and specific conductance. Prior to reissuing the facility's wastewater operating permit in 2010, Telogia entered into a Consent Order (CO) to study, design and construct additional treatment facilities to address exceedances and potential exceedances. Consent Order, OGC # 08-0367-39-IW was executed on 09/01/2009 which addresses effluent violations for toxicity, copper, flow, pH, temperature and unionized ammonia from July 2005 through December 2007. The Consent Order includes interim limits for toxicity, copper and temperature only. Interim limits for pH, flow and ammonia were not included in the Consent Order because the violations ceased prior to execution of the Consent Order therefore relief was no longer needed.

When the Industrial Wastewater permit (No. FL0039951) was issued on January 28, 2010, Telogia also entered into an Administrative Order (AO) (No. AO057NW) to address potential exceedances of specific conductance.
As a condition of the CO, Telogia was required to perform an Engineering Study on the water quality parameters that exceeded permit conditions and determine the "best" method for addressing the reduction of those parameters.

A study performed by Chastain-Skillman, Inc (CSI) determined that a constructed wetland treatment system would best address the requirements of the permit. This study was submitted to and reviewed by the Department. Subsequently CSI was released by Telogia and Capital Engineering & Survey, Inc (CES) was engaged to prepare the construction documents and application to modify the permit to include the wetland treatment facility. CES also engaged Wetland Solutions, Inc (WSI) an environmental firm specializing in wetland treatment systems, to assist in sizing and determining the type of plants to best treat the parameters identified above. Wetland treatment systems utilize the processes of sedimentation, filtration, oxidation, reduction, adsorption, and precipitation to reduce concentrations of pollutants in the influent waters prior to discharge from the system.

The 9/21/2012 revision (-006) allows Telogia Power to construct and operate a manmade wetland treatment system to enable the Permittee to meet the final water quality limitations in the Industrial Wastewater discharge permit. The proposed treatment system will consist of two, 2.32 acre wetland cells. Each cell will have a shallow planted area of 2.19 acres and 0.13 acres of deep zone. The non-process wastewater will be collected in an existing 50,000 gallon concrete basin and pumped to the wetland treatment cells where it will slowly, flow through the cells (residence time of approximately 11 days), receive treatment and eventually discharge off site through an unnamed ditch. The final receiving water body is Telogia Creek.

PART II: Sampling Event Information	
Date(s) sample collected: 9/9/13	**Sampler(s):** Marcel Goss, Cheryl Swanson, Jennifer Weger
Temperature (Deg C): 27.5	**pH (SU):** 7.57
Dissolved Oxygen (mg/L): **5.57**	**Conductivity (umhos/cm):** **1537**
Total Residual Chlorine (mg/L): 0.07 (operator)/0.37 (FDEP**)**	**Total Residual Chlorine - after Disinfection (mg/L):**
Method of Chlorination:	**Method of De-chlorination:**
Flow During Sample Collection for each outfall(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):	
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:	

Appendix C

Explanation of Measurements

(1) (1) Quality Assurance and Quality Control

FDEP's quality assurance requirements for analytical laboratories and field activities are codified in Chapter 62-160, F.A.C., Quality Assurance (QA Rule) and in internal Standard Operating Procedures (FDEP SOPs). Methods for all analyses are on file at the FDEP Central Laboratory in Tallahassee and may be viewed on the web at http://www.dep.state.fl.us/labs/library/lab_sops.htm and/or http://www.dep.state.fl.us/water/sas/qa/index.htm.

(2) Chemical Analyses of the Effluent

The effluent was analyzed for nutrients, metals, organic constituents (base, neutral, and acid extractables) and pesticides following FDEP 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 a potential violation of 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 a potential violation of 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 a potential violation of 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. Raschke and Shultz (1987) found that an AGP above 5.0 mg dry weight/L represents a “problem” threshold for fresh receiving waters, implying nutrient enrichment. 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

Quantitative samples were collected from Hester-Dendy multi-plate samplers incubated for 28 days. 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..

Shannon-Weaver Diversity Index: This index is specified in the Florida Administrative Code 62-302 as a measure of biological integrity. Low diversity scores are undesirable. Where diversity is low, only a few taxa are abundant as compared to an area where many taxa are present in equitable abundance among taxa (Magurran 1988). A difference of 25% in Shannon-Weaver diversity between results from Hester-Dendy multiplate samplers incubated for 28 days at test and control sites constitute exceedances of 62-302.530(10), F.A.C..

(7) 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 D

Chain of Custody

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2013-09-09-11
FYI Telogia Power LLC Sampling Inspection

Requester: Jennifer G. Weger
Field Report Prepared By:

Customer: NW-DIST
Project ID: FYI5
PMAS: 1143

Collected By: Harris Walters + Cheryl Swanson & J. Weger
Send Final Report To: Kim Allen
M. Goss

Sampling Agency: FDEP

Lab ID *	Location	Collection (comp begin or grab) Eastern	Composite end Eastern	Bottle Group(s)**
	Telogia Power	☐ Comp ☒ Grab Date 9/9/13 Time 1038 ~~Central~~	Date Time Central	B, ~~C~~
	Field ID: Test Site	Tot Res Chlorine (mg/L):	Diss Oxygen (mg/L): 3.06 / Storet Station Number:	
	Matrix (include type e.g. Salt, Fresh, etc): Fresh / Temp (C): 24.8 / pH: 7.52	Sample Depth ☒ m ☐ ft	1440 ☐ Salinity (PPTh) ☒ Sp Conductance (umho/cm)	NPDES Number
	Latitude ☐ dd ☐ dms / Longitude ☐ dd ☐ dms	Comments		

Lab ID *	Location	Collection (comp begin or grab) Eastern	Composite end Eastern	Bottle Group(s)**
	Telogia Power	☐ Comp ☒ Grab Date 9/9/13 Time 1503 ~~Central~~	Date Time Central	B, ~~C~~
	Field ID: Control Site	Tot Res Chlorine (mg/L):	Diss Oxygen (mg/L): 2.25 / Storet Station Number:	
	Matrix (include type e.g. Salt, Fresh, etc): Fresh / Temp (C): 25.2 / pH: 3.73	Sample Depth ☒ m ☐ ft	61.5 ☐ Salinity (PPTh) ☒ Sp Conductance (umho/cm)	NPDES Number
	Latitude ☐ dd ☐ dms / Longitude ☐ dd ☐ dms	Comments		

Lab ID *	Location	Collection (comp begin or grab) Eastern	Composite end Eastern	Bottle Group(s)**
	Telogia Power	☐ Comp ☒ Grab Date 09/09/13 Time 1300 Central	Date Time Central	A, ~~B~~
	Field ID: EFF-03 Effluent	Tot Res Chlorine (mg/L): 0.37 mg/L	Diss Oxygen (mg/L): 5.57 / Storet Station Number:	
	Matrix (include type e.g. Salt, Fresh, etc): Fresh / Temp (C): 27.5 / pH: 7.57	Sample Depth ☒ m ☐ ft	1537 ☐ Salinity (PPTh) ☒ Sp Conductance (umho/cm)	NPDES Number
	Latitude ☐ dd ☐ dms / Longitude ☐ dd ☐ dms	Comments		

Lab ID *	Location	Collection (comp begin or grab) Eastern	Composite end Eastern	Bottle Group(s)**
	Field Blank	☐ Comp ☒ Grab Date 09/09/13 Time 1300 Central	Date Time Central	D
	Field ID	Tot Res Chlorine (mg/L):	Diss Oxygen (mg/L): / Storet Station Number:	
	Matrix (include type e.g. Salt, Fresh, etc): / Temp (C): / pH:	Sample Depth ☐ m ☐ ft	☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number
	Latitude ☐ dd ☐ dms / Longitude ☐ dd ☐ dms	Comments		

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	9/10/13 0824	hand	M. Goodrich	9-10-13 0940			[signature]	9-10-13 0824

* Shaded Areas for Lab use only.

4 Biomass Jugs

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

Page 1 of 4

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2013-09-09-11
FYI Telogia Power LLC Sampling Inspection

Requester: Jennifer G. Weger
Field Report Prepared By:

Customer: NW-DIST
Project ID: FYI5
PMAS: 1143

Collected By: Harris Walters Cheryl Swanson
Send Final Report To: Kim Allen

Sampling Agency: FDEP

Lab ID *	Location	Collection (comp begin or grab) Eastern Central	Composite end Eastern Central	Bottle Group(s)**
	Telogia Power	☐ Comp ☐ Grab Date 9/9/13 Time 1038	Date Time	C
	Field ID: Test Site - Rep 1	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number
	Matrix (include type e.g. Salt, Fresh, etc): Bio	Temp (C)	pH	Sample Depth ☐ m ☐ ft; ☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm); NPDES Number
	Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms		Comments

Lab ID *	Location	Collection (comp begin or grab) Eastern Central	Composite end Eastern Central	Bottle Group(s)**
	Telogia Power	☐ Comp ☐ Grab Date 9/9/13 Time 1038	Date Time	C
	Field ID: Test Site - Rep 2	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number
	Matrix (include type e.g. Salt, Fresh, etc): Bio	Temp (C)	pH	Sample Depth ☐ m ☐ ft; ☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm); NPDES Number
	Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms		Comments

Lab ID *	Location	Collection (comp begin or grab) Eastern Central	Composite end Eastern Central	Bottle Group(s)**
	Telogia Power	☐ Comp ☐ Grab Date 9/9/13 Time 1038	Date Time	C
	Field ID: Test Site - Rep 3	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number
	Matrix (include type e.g. Salt, Fresh, etc): Bio	Temp (C)	pH	Sample Depth ☐ m ☐ ft; ☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm); NPDES Number
	Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms		Comments

Lab ID *	Location	Collection (comp begin or grab) Eastern Central	Composite end Eastern Central	Bottle Group(s)**
	Telogia Power	☐ Comp ☐ Grab Date 9/9/13 Time 1038	Date Time	C
	Field ID: Test Site - Rep 4	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number
	Matrix (include type e.g. Salt, Fresh, etc): Bio	Temp (C)	pH	Sample Depth ☐ m ☐ ft; ☐ Salinity (PPTh) ☐ Sp Conductance (umho/cm); NPDES Number
	Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms		Comments

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[signature]	9/10/13 0824	hand	[signature]	9-10-13 0824				

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2013-09-09-11
FYI Telogia Power LLC Sampling Inspection

Customer: NW-DIST
Project ID: FYI5
PMAS: 1143

Requester: Jennifer G. Weger
Collected By: Harris Walters, Cheryl Swanson
Sampling Agency: FDEP

Field Report Prepared By:
Send Final Report To: Kim Allen

Lab ID *	Location	Matrix (include type e.g. Salt, Fresh, etc)	Temp (C)	pH	Latitude	Longitude	Comp / Grab	Collection (comp begin or grab) Eastern Date Time Central	Composite end Eastern Date Time Central	Tot Res Chlorine (mg/L)	Diss Oxygen (mg/L)	Storet Station Number	Sample Depth m / ft	Salinity (PPTh) / Sp Conductance (umho/cm)	NPDES Number	Bottle Group(s)**	Comments
	Telogia Power Field ID: Control Site - Rep 1	Bio			dd / dms	dd / dms	Comp / Grab	Date 9/9/13 Time 1457								C	
	Telogia Power Field ID: Control Site - Rep 2	Bio			dd / dms	dd / dms	Comp / Grab	Date 9/9/13 Time 1457								C	
	Telogia Power Field ID: Control Site Rep 3	Bio			dd / dms	dd / dms	Comp / Grab	Date 9/9/13 Time 1457								C	
	Telogia Power Field ID: Control Site Rep 4	Bio			dd / dms	dd / dms	Comp / Grab	Date 9/9/13 Time 1457								C	bag labelled Rep 4

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
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* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

Appendix E

Physical/Chemical and Habitat Assessment field sheets

PHYSICAL/CHEMICAL CHARACTERIZATION FIELD SHEET

SAMPLE ID _____ ORG ID _____ LATITUDE _____

COUNTY Liberty STORET # _____ LONGITUDE _____

DATE 9/9/13 TIME 1503 SAMPLING AGENCY FDEP- Tall.

SITE NAME Telogia Power

FIELD ID/NAME Control Site RECEIVING BODY OF WATER Big Cypress Branch

RIPARIAN ZONE / STREAM FEATURES

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

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

Landscape Development Intensity Index (LDI)

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

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

Width of Riparian Vegetation (m) on Each Buffer Side

Left Bank: >18 Right Bank: >18

Hydrologic Modification Score (per FT 3101)

High Water Mark: 0.4 (m) + 0.25 (above present water level) = 0.65 (present depth) (above bed)

Artificially Impounded ☐ Yes ☐ No

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

1 m wide

m/s	0.08 m/s	m/s
m deep	0.25 m deep	m deep

13 sec but some slower section

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 HD ☐ LCI ☐ BioRecon

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

WATER QUALITY

	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)
Top:								
Mid:	25.2	25.2	3.73	2.25	26.9	61.5		
Bottom								

☐ VOB (NO)

SITE DEPTH 0.25

Meter ID: #8

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: See H2O form 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

	Absent	Rare	Common	Abundant
Periphyton:	☐	☒	☐	☐
Fish:	☐	☒	☐	☐
Aquatic Plants:	☒	☐	☐	☐
Iron/Sulfur Bacteria:	☒	☐	☐	☐

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

WEATHER CONDITIONS / NOTES:

hot, humid, lots mosquitoes

banks looked like braided flood plain area

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

SAMPLING TEAM Cheryl Swanson / Harris Walters

SIGNATURE: Cheryl Swanson DATE: 9/9/13

STATE OF FLORIDA, DEPARTMENT OF ENVIRONMENTAL PROTECTION
STREAM/RIVER HABITAT ASSESSMENT FIELD SHEET

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (MM/DD/YY):	RECEIVING BODY OF WATER:
		09/09/13	Big Cypress → Stokes Branch

REMARKS:	COUNTY:	LOCATION:	FIELD ID/NAME:
	Liberty	Telogia Power	Control Site

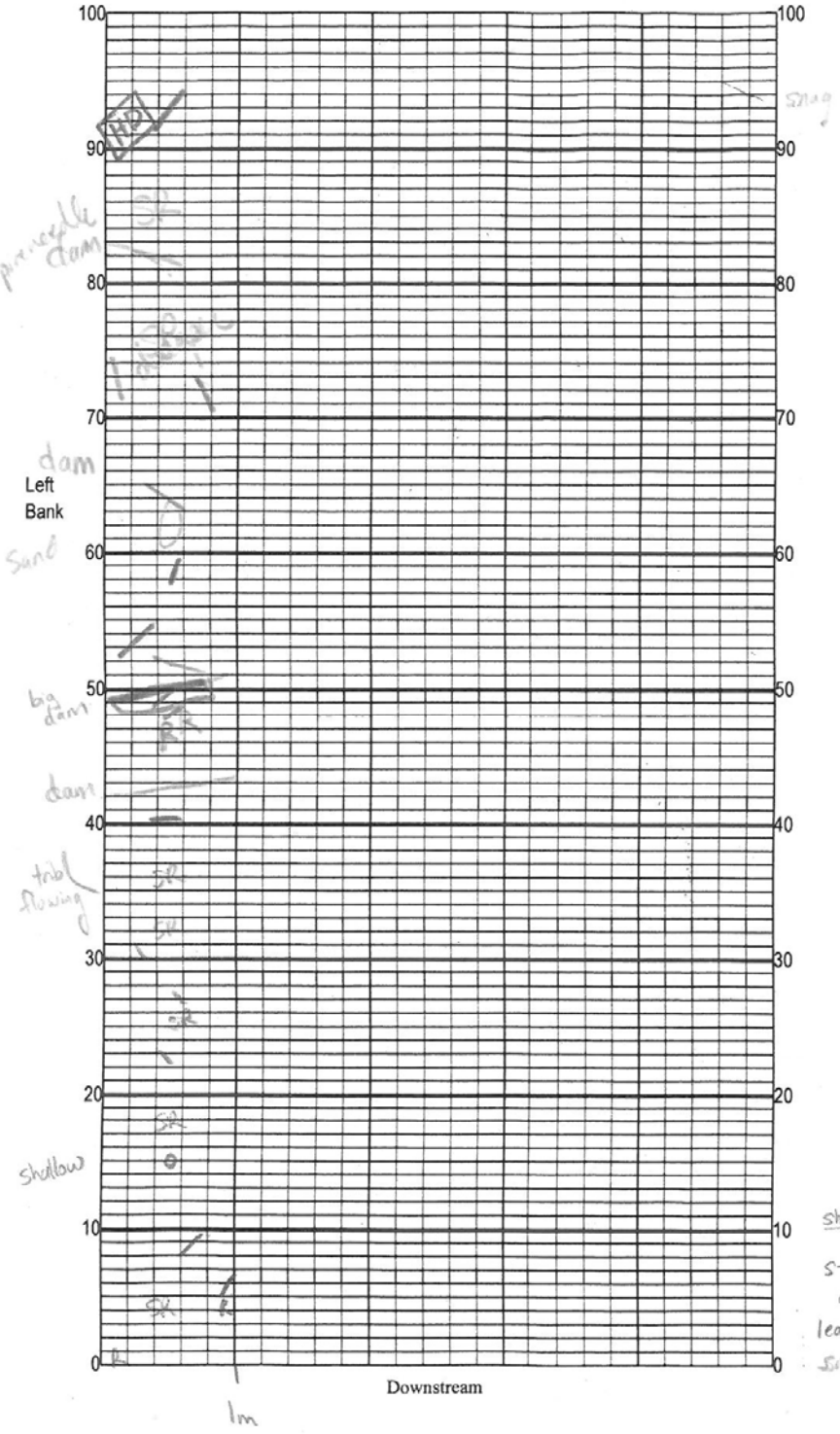
Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components S,R,L not 2m² **Substrate Diversity** 2	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock] 20 19 18 17 16	Three major productive habitats present. Adequate 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 alive – Snag 5 4 3 (2) 1
Substrate Availability 1	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 8	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 2 ---------- Primary Score 13	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** 13	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 10 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 9 Left Bank 9	Width of vegetation greater than 18 m 10 9	Width of vegetation >12 to 18m 8 7 6	Width of vegetation 6 to 12 m. human activities close to system 5 4	Less than 6 m of buffer zone due to intensive human activities 3 2 1
Riparian Zone Vegetation Quality Right Bank 9 Left Bank 9 ------ Secondary Score 69	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

82 **TOTAL SCORE**

Date:	Analyst:	Signature:
9/9/13	Cheryl Swanson	Cheryl Swanson

Form FD 9000-5 Revision Date: December 19, 2011

DEP-SOP-001/01 Form FD 9000-4
Stream/River Habitat Sketch Sheet



Location: Big Cypress Branch Control Site

Date: 09/09/2013

Sampler: Cheryl Swanson

100 m: Latitude	30.32750
Longitude	84.82126
0 m: Latitude	
Longitude	(GPS)

Substrates: Code key, draw proportionate habitat abundance. %

\	Snags	
R	Roots/undercut banks (SR = short root)	
L	Leaf Packs (or mats)	
	Aquatic Macrophytes	
	Pools — total # observed = ____ # range expected = ____	

Average width 1 m

Average depth 0.25 m

Velocity measured at 87 meter mark.

WQ & chemistry taken at 87 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:

HDs @ 90 30° 19.653 84° 49.270

short roots on bank

stringy roots on bottom

leaves on bottom - newish, mixed w/ pine needles

snags either unstable or alive + small

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

Revision Date: June 2, 2011

Ph

PHYSICAL/CHEMICAL CHARACTERIZATION FIELD SHEET

SAMPLE ID _____ ORG ID _____ LATITUDE _____

COUNTY Liberty STORET # _____ LONGITUDE _____

DATE 9/9/13 TIME 1038 SAMPLING AGENCY FDEP - Tall.

SITE NAME Telogia Power

FIELD ID/NAME Test Site RECEIVING BODY OF WATER Stokes Branch

RIPARIAN ZONE / STREAM FEATURES

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

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

Landscape Development Intensity Index (LDI): _____

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

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

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

Hydrologic Modification Score (per FT 3101): _____

High Water Mark: 0.5 (m) + 0.2 (above present water level) = 0.7 (present depth) (above bed)

Artificially Impounded ☐ Yes ☒ No

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

m/s	0.02 m/s	m/s
m deep	0.2 m deep	m deep

42 sec Stagnant to very little

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 HD ☐ LCI ☐ BioRecon

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

ABUNDANCE

	Absent	Rare	Common	Abundant
Periphyton:	☐	☒	☐	☐
Fish:	☐	☐	☒	☐
Aquatic Plants:	☒	☐	☐	☐
Iron/Sulfur Bacteria:	☒	☐	☐	☐

WATER QUALITY

	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)
Top :		24.8	7.52	3.06	36.6	1440		
Mid:								☒ VOB
Bottom								SITE DEPTH
Meter ID:	#8							0.2m

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

Water Surface Oils Normal ☐ Sheen ☒ Some Globs ☐ Slick ☐ Other ☒ none

Water Sample Taken? ☒ Yes ☐ No

Sample Preserved? ☒ Yes ☐ No

Lot Number: see H2O form Exp: _____

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

Algae Sample Taken? ☐ Yes ☒ No

Sample Preserved? ☐ Yes ☐ No

Lot Number: _____ Exp: _____

Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐

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

WEATHER CONDITIONS / NOTES:

hot, humid lots mosquitoes

stagnant H_2O, flowing in 1 section/area only ~13 sec

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

SAMPLING TEAM Harris Walters / Cheryl Swanson

SIGNATURE: Cheryl Swanson

DATE : 9/9/13

STATE OF FLORIDA, DEPARTMENT OF ENVIRONMENTAL PROTECTION
STREAM/RIVER HABITAT ASSESSMENT FIELD SHEET

SUBMITTING AGENCY CODE: / SUBMITTING AGENCY NAME:	STORET STATION NUMBER:	DATE (MM/DD/YY):	RECEIVING BODY OF WATER:
		09/09/13	Stokes Branch → Telogia Creek
REMARKS:	COUNTY: Liberty	LOCATION: Telogia Power	FIELD ID/NAME: Test Site

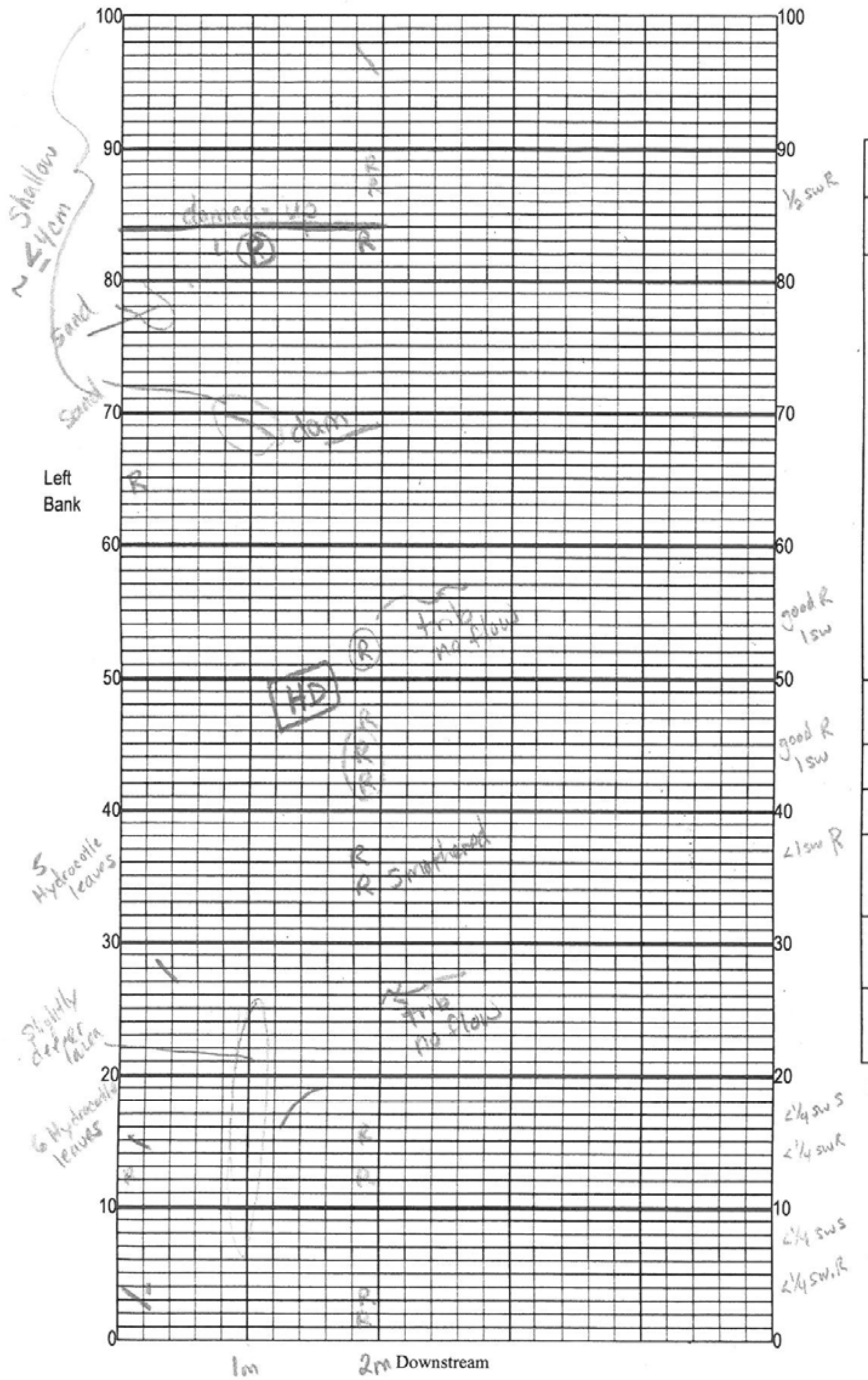
Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components (R, L, S not 2m²) **Substrate Diversity** 3	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock] 20 19 18 17 16	Three major productive habitats present. 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 (Roots - 3) 5 4 (3) 2 1
Substrate Availability 1	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 3	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 3 ---------- Primary Score 10	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. 20 19 18 17 16	Adequate number of stable pools (1-2 per 12 times width) and >25% of habitats affected by sand, silt, or algae. 15 14 13 12 11	Does not have required number of stable pools (1-2 per 12 x width) and/or has shallow pools (<2 x prevailing depth). 10 9 8 7 6	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation. 5 4 (3) 2 1
Secondary Habitat Components **Artificial Channelization** 11	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. 20 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging 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 10 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 10 Left Bank 10 ---------- Secondary Score 71	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

81 **TOTAL SCORE**

Date:	Analyst:	Signature:
9/9/13	Cheryl Swanson	Cheryl Swanson

Form FD 9000-5 Revision Date: December 19, 2011

DEP-SOP-001/01 Form FD 9000-4
Stream/River Habitat Sketch Sheet



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

Location: Stokes Branch Test Site

Date: 09/09/2013

Sampler: Cheryl Swanson

100 m: Latitude	30.33729
Longitude	-84.81298
0 m: Latitude	
Longitude	(GIS)

Substrates: Code key, draw proportionate habitat abundance. | %

Code	Substrate	%
\	Snags	<0.01
R	Roots/undercut banks (<8 areas)	<0.01
L	Leaf Packs (or mats)	0
	Aquatic Macrophytes	
(P)	Pools: total # observed = 1; # range expected = 12-24	

Average width 2 m

Average depth 0.2 m (some shallow)

Velocity measured at 45 meter mark. 42 sec (area 13 sec)

WQ & chemistry taken at 50 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:

HDs 30° 20' 14.1"
84° 48' 44.8"

snags small, smothered, exposed
few new leaves + pine needles on very smothered leaves

some OK root, some very smothered

almost no flow

very anaerobic, some sheen

Revision Date: June 2, 2011

Appendix F

Chemical analysis of effluent and receiving water

SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
AGP/LN	Algal Growth Potential	6.56	A	mg DryWt/L	0.3	0.9
Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	7.3		ug/L	0.55	1.7
Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.40	U	ug/L	0.4	1.2
Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	1.2	I	mg/L	0.2	2
Toxicology	Bioassay-Acute-Def-FW-Fish, LC50	100	L	LC50		
Toxicology	Bioassay-Acute-Def-FW-C.dubia, LC50	100	L	LC50		
Metals	Arsenic	4.36		ug/L	0.25	1
Metals	Chromium	0.83	I	ug/L	0.3	1.2
Metals	Silver	0.025	U	ug/L	0.025	0.1
Metals	Selenium	0.20	U	ug/L	0.2	0.8
Metals	Lead	0.34	I	ug/L	0.2	0.8
Metals	Cadmium	0.050	U	ug/L	0.05	0.2
Metals	Hardness	588		mg/L	0.4	1.6
Metals	Aluminum	96		ug/L	5	20
Metals	Iron	210		ug/L	30	120
Metals	Sodium	55.3		mg/L	0.5	2
Metals	Potassium	93.0		mg/L	1.5	6
Metals	Zinc	5.0	U	ug/L	5	20
Metals	Calcium	182		mg/L	0.075	0.3
Metals	Magnesium	32.3		mg/L	0.04	0.16
Metals	Nickel	1.23		ug/L	0.25	1
Metals	Copper	3.84		ug/L	0.5	1
Nutrients	Fluoride	0.40		mg F/L	0.035	0.1
Nutrients	Color (true)	48	A	PCU	2.5	6
Nutrients	Kjeldahl Nitrogen	0.94		mg N/L	0.08	0.2
Nutrients	Chloride	33		mg Cl/L	2	5
Nutrients	TSS	4	I	mg/L	2	10
Nutrients	Sulfate	420		mg SO4/L	2	5
Nutrients	Ammonia-N	0.055		mg N/L	0.002	0.005
Nutrients	Total-P	0.48		mg P/L	0.005	0.05
Nutrients	O-Phosphate-P	0.32		mg P/L	0.04	0.1
Nutrients	Turbidity	1.3		NTU	0.1	0.1
Nutrients	Alkalinity	328		mg CaCO3/L	0.65	2.5
Nutrients	Organic Carbon	19		mg C/L	0.5	1
Nutrients	NO2NO3-N	0.031		mg N/L	0.004	0.01
Pesticides	Hexazinone	0.030	U	ug/L	0.03	0.12

Date_Sampled	UDL	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
9/9/2013 13:00	Effluent	Pesticides	Parathion Ethyl	0.020	U	ug/L	0.02	0.08
9/9/2013 13:00	Effluent	Pesticides	Bromacil	0.040	U	ug/L	0.04	0.16
9/9/2013 13:00	Effluent	Pesticides	Atrazine	0.010	U	ug/L	0.01	0.04
9/9/2013 13:00	Effluent	Pesticides	Naled	0.040	U	ug/L	0.04	0.16
9/9/2013 13:00	Effluent	Pesticides	Simazine	0.010	U	ug/L	0.01	0.04
9/9/2013 13:00	Effluent	Pesticides	Norflurazon	0.030	U	ug/L	0.03	0.12
9/9/2013 13:00	Effluent	Pesticides	Mevinphos	0.010	UJ	ug/L	0.01	0.04
9/9/2013 13:00	Effluent	Pesticides	Diazinon	0.010	U	ug/L	0.01	0.04
9/9/2013 13:00	Effluent	Pesticides	Parathion Methyl	0.010	U	ug/L	0.01	0.04
9/9/2013 13:00	Effluent	Pesticides	Metribuzin	0.020	U	ug/L	0.02	0.08
9/9/2013 13:00	Effluent	Pesticides	Metalaxyl	0.040	U	ug/L	0.04	0.16
9/9/2013 13:00	Effluent	Pesticides	Ethoprop	0.0050	U	ug/L	0.005	0.02
9/9/2013 13:00	Effluent	Pesticides	Chlorpyrifos Methyl	0.010	U	ug/L	0.01	0.04
9/9/2013 13:00	Effluent	Pesticides	Ametryn	0.010	UJ	ug/L	0.01	0.04
9/9/2013 13:00	Effluent	Pesticides	Metolachlor	0.060	U	ug/L	0.06	0.24
9/9/2013 13:00	Effluent	Pesticides	Phorate	0.0050	U	ug/L	0.005	0.02
9/9/2013 13:00	Effluent	Pesticides	Malathion	0.010	U	ug/L	0.01	0.04
9/9/2013 13:00	Effluent	Pesticides	Fenamiphos	0.030	U	ug/L	0.03	0.12
9/9/2013 13:00	Effluent	Pesticides	Butylate	0.020	U	ug/L	0.02	0.08
9/9/2013 13:00	Effluent	Pesticides	Alachlor	0.060	U	ug/L	0.06	0.24
9/9/2013 13:00	Effluent	Pesticides	Prometryn	0.020	U	ug/L	0.02	0.08
9/9/2013 13:00	Effluent	Pesticides	Azinphos Methyl	0.020	U	ug/L	0.02	0.08
9/9/2013 13:00	Effluent	Pesticides	Chlorpyrifos Ethyl	0.010	U	ug/L	0.01	0.04
9/9/2013 13:00	Effluent	Priority Organic Pollutants	2,4-Dimethylphenol	9.7	U	ug/L	9.7	39
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Acenaphthylene	0.19	U	ug/L	0.19	0.78
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Benzidine	97	U	ug/L	97	390
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Di-n-octyl phthalate	0.97	U	ug/L	0.97	3.9
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Hexachlorobenzene	0.97	U	ug/L	0.97	3.9
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Hexachlorobutadiene	2.9	U	ug/L	2.9	12
9/9/2013 13:00	Effluent	Priority Organic Pollutants	3,3'-Dichlorobenzidine	39	U	ug/L	39	160
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Benzo(b)fluoranthene	0.19	U	ug/L	0.19	0.78
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Fluoranthene	0.19	U	ug/L	0.19	0.78
9/9/2013 13:00	Effluent	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9	U	ug/L	1.9	7.8
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Phenol	0.97	U	ug/L	0.97	3.9
9/9/2013 13:00	Effluent	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.97	U	ug/L	0.97	3.9
9/9/2013 13:00	Effluent	Priority Organic Pollutants	2,4-Dinitrotoluene	0.97	U	ug/L	0.97	3.9
9/9/2013 13:00	Effluent	Priority Organic Pollutants	2-Chlorophenol	0.97	U	ug/L	0.97	3.9
9/9/2013 13:00	Effluent	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9	U	ug/L	2.9	12
9/9/2013 13:00	Effluent	Priority Organic Pollutants	2-Nitrophenol	0.97	U	ug/L	0.97	3.9
9/9/2013 13:00	Effluent	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9	U	ug/L	1.9	7.8
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	1.9	U	ug/L	1.9	7.8
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Di-n-butyl phthalate	0.97	U	ug/L	0.97	3.9

Date_Sampled	UDL	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Isophorone	0.97	U	ug/L	0.97	3.9
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Pyrene	0.19	U	ug/L	0.19	0.78
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Acenaphthene	0.19	U	ug/L	0.19	0.78
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Anthracene	0.19	U	ug/L	0.19	0.78
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Dimethyl phthalate	0.97	U	ug/L	0.97	3.9
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9	U	ug/L	2.9	12
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Naphthalene	0.19	U	ug/L	0.19	0.78
9/9/2013 13:00	Effluent	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.97	U	ug/L	0.97	3.9
9/9/2013 13:00	Effluent	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.97	U	ug/L	0.97	3.9
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Benzo(a)anthracene	0.19	U	ug/L	0.19	0.78
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Benzo(k)fluoranthene	0.19	U	ug/L	0.19	0.78
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9	U	ug/L	2.9	12
9/9/2013 13:00	Effluent	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9	U	ug/L	1.9	7.8
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Phenanthrene	0.19	U	ug/L	0.19	0.78
9/9/2013 13:00	Effluent	Priority Organic Pollutants	2,4-Dichlorophenol	0.97	U	ug/L	0.97	3.9
9/9/2013 13:00	Effluent	Priority Organic Pollutants	2,6-Dinitrotoluene	0.97	U	ug/L	0.97	3.9
9/9/2013 13:00	Effluent	Priority Organic Pollutants	2-Chloronaphthalene	0.97	U	ug/L	0.97	3.9
9/9/2013 13:00	Effluent	Priority Organic Pollutants	4-Nitrophenol	15	U	ug/L	15	58
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Benzo(a)pyrene	0.19	U	ug/L	0.19	0.78
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.19	U	ug/L	0.19	0.78
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.97	U	ug/L	0.97	3.9
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Butyl benzyl phthalate	0.97	U	ug/L	0.97	3.9
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.19	U	ug/L	0.19	0.78
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.19	U	ug/L	0.19	0.78
9/9/2013 13:00	Effluent	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	2.9	U	ug/L	2.9	12
9/9/2013 13:00	Effluent	Priority Organic Pollutants	1,4-Dioxane	0.020	U	ug/L	0.02	0.1
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.97	U	ug/L	0.97	3.9
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Chrysene	0.19	U	ug/L	0.19	0.78
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Diethyl phthalate	0.97	U	ug/L	0.97	3.9
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Nitrobenzene	1.9	U	ug/L	1.9	7.8
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Pentachlorophenol	2.9	U	ug/L	2.9	12
9/9/2013 13:00	Effluent	Priority Organic Pollutants	2,4-Dinitrophenol	15	UJ	ug/L	15	58
9/9/2013 13:00	Effluent	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.97	U	ug/L	0.97	3.9
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Fluorene	0.19	U	ug/L	0.19	0.78
9/9/2013 13:00	Effluent	Priority Organic Pollutants	Hexachloroethane	2.9	U	ug/L	2.9	12
9/9/2013 13:00	Effluent	Field Parameter	Temperature	27.5		C		
9/9/2013 13:00	Effluent	Field Parameter	Dissolved Oxygen	5.57		mg/L		
9/9/2013 13:00	Effluent	Field Parameter	pH	7.57				
9/9/2013 13:00	Effluent	Field Parameter	Specific Conductance	1,537		umhos/cm		
9/9/2013 13:00	Effluent	Field Parameter	Total Residual Chlorine	0.37		mg/L		
9/9/2013 13:00	Effluent	Field Parameter	Sample Depth	0.1		m		
9/9/2013 15:03	Control Site	AGP/LN	Algal Growth Potential	0.300	U	mg DryWt/L	0.3	0.9

Date_Sampled	UDL	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
9/9/2013 15:03	Control Site	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.50	U	ug/L	0.5	1.5
9/9/2013 15:03	Control Site	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	0.79	I	mg/L	0.2	2
9/9/2013 15:03	Control Site	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	0.69	U	ug/L	0.69	2.1
9/9/2013 15:03	Control Site	Metals	Aluminum	1,540		ug/L	60	240
9/9/2013 15:03	Control Site	Metals	Arsenic	0.51	I	ug/L	0.25	1
9/9/2013 15:03	Control Site	Metals	Potassium	0.30	U	mg/L	0.3	1.2
9/9/2013 15:03	Control Site	Metals	Zinc	5.0	U	ug/L	5	20
9/9/2013 15:03	Control Site	Metals	Calcium	0.33		mg/L	0.075	0.3
9/9/2013 15:03	Control Site	Metals	Silver	0.025	U	ug/L	0.025	0.1
9/9/2013 15:03	Control Site	Metals	Iron	2,790		ug/L	30	120
9/9/2013 15:03	Control Site	Metals	Chromium	1.3		ug/L	0.3	1.2
9/9/2013 15:03	Control Site	Metals	Cadmium	0.050	U	ug/L	0.05	0.2
9/9/2013 15:03	Control Site	Metals	Sodium	2.2		mg/L	0.5	2
9/9/2013 15:03	Control Site	Metals	Selenium	0.25	I	ug/L	0.2	0.8
9/9/2013 15:03	Control Site	Metals	Nickel	0.90	I	ug/L	0.25	1
9/9/2013 15:03	Control Site	Metals	Magnesium	0.28		mg/L	0.04	0.16
9/9/2013 15:03	Control Site	Metals	Copper	0.50	U	ug/L	0.5	1
9/9/2013 15:03	Control Site	Metals	Lead	1.22		ug/L	0.2	0.8
9/9/2013 15:03	Control Site	Nutrients	Total-P	0.037		mg P/L	0.002	0.005
9/9/2013 15:03	Control Site	Nutrients	Chloride	3.2		mg Cl/L	0.2	0.5
9/9/2013 15:03	Control Site	Nutrients	Kjeldahl Nitrogen	1.5		mg N/L	0.08	0.2
9/9/2013 15:03	Control Site	Nutrients	Ammonia-N	0.076		mg N/L	0.002	0.005
9/9/2013 15:03	Control Site	Nutrients	Alkalinity	0.65	U	mg CaCO3/L	0.65	2.5
9/9/2013 15:03	Control Site	Nutrients	Turbidity	13		NTU	0.1	0.1
9/9/2013 15:03	Control Site	Nutrients	Organic Carbon	49		mg C/L	0.5	1
9/9/2013 15:03	Control Site	Nutrients	Color (true)	510		PCU	18	42
9/9/2013 15:03	Control Site	Nutrients	TSS	30		mg/L	2	10
9/9/2013 15:03	Control Site	Nutrients	O-Phosphate-P	0.004	U	mg P/L	0.004	0.01
9/9/2013 15:03	Control Site	Nutrients	NO2NO3-N	0.020	U	mg N/L	0.02	0.05
9/9/2013 15:03	Control Site	Nutrients	Sulfate	0.20	U	mg SO4/L	0.2	0.5
9/9/2013 15:03	Control Site	Nutrients	Fluoride	0.035	U	mg F/L	0.035	0.1
9/9/2013 15:03	Control Site	Priority Organic Pollutants	1,4-Dioxane	0.020	U	ug/L	0.02	0.1
9/9/2013 15:03	Control Site	Field Parameter	Sample Depth	0		m		
9/9/2013 15:03	Control Site	Field Parameter	Dissolved Oxygen	2.25		mg/L		
9/9/2013 15:03	Control Site	Field Parameter	Specific Conductance	61.5		umhos/cm		
9/9/2013 15:03	Control Site	Field Parameter	Temperature	25.2		C		
9/9/2013 15:03	Control Site	Field Parameter	pH	3.73				
9/9/2013 10:38	Test Site	AGP/LN	Algal Growth Potential	7.04		mg DryWt/L	0.3	0.9
9/9/2013 10:38	Test Site	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	0.51	I	mg/L	0.2	2
9/9/2013 10:38	Test Site	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.40	U	ug/L	0.4	1.2
9/9/2013 10:38	Test Site	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	3.8		ug/L	0.55	1.7
9/9/2013 10:38	Test Site	Metals	Lead	0.20	U	ug/L	0.2	0.8

Date_Sampled	UDL	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
9/9/2013 10:38	Test Site	Metals	Iron	220		ug/L	30	120
9/9/2013 10:38	Test Site	Metals	Calcium	170		mg/L	0.075	0.3
9/9/2013 10:38	Test Site	Metals	Copper	1.68		ug/L	0.5	1
9/9/2013 10:38	Test Site	Metals	Potassium	100		mg/L	3	12
9/9/2013 10:38	Test Site	Metals	Silver	0.025	U	ug/L	0.025	0.1
9/9/2013 10:38	Test Site	Metals	Magnesium	30.8		mg/L	0.04	0.16
9/9/2013 10:38	Test Site	Metals	Arsenic	4.26		ug/L	0.25	1
9/9/2013 10:38	Test Site	Metals	Selenium	0.20	U	ug/L	0.2	0.8
9/9/2013 10:38	Test Site	Metals	Aluminum	77		ug/L	5	20
9/9/2013 10:38	Test Site	Metals	Zinc	5.0	U	ug/L	5	20
9/9/2013 10:38	Test Site	Metals	Nickel	1.06		ug/L	0.25	1
9/9/2013 10:38	Test Site	Metals	Cadmium	0.050	U	ug/L	0.05	0.2
9/9/2013 10:38	Test Site	Metals	Chromium	0.75	I	ug/L	0.3	1.2
9/9/2013 10:38	Test Site	Metals	Sodium	54.2		mg/L	0.5	2
9/9/2013 10:38	Test Site	Nutrients	Ammonia-N	0.055		mg N/L	0.002	0.005
9/9/2013 10:38	Test Site	Nutrients	Fluoride	0.37		mg F/L	0.035	0.1
9/9/2013 10:38	Test Site	Nutrients	Total-P	0.56		mg P/L	0.005	0.05
9/9/2013 10:38	Test Site	Nutrients	TSS	4	I	mg/L	2	10
9/9/2013 10:38	Test Site	Nutrients	NO2NO3-N	0.048		mg N/L	0.004	0.01
9/9/2013 10:38	Test Site	Nutrients	Sulfate	400		mg SO4/L	2	5
9/9/2013 10:38	Test Site	Nutrients	Turbidity	1.4	A	NTU	0.1	0.1
9/9/2013 10:38	Test Site	Nutrients	Kjeldahl Nitrogen	0.93		mg N/L	0.08	0.2
9/9/2013 10:38	Test Site	Nutrients	O-Phosphate-P	0.41		mg P/L	0.04	0.1
9/9/2013 10:38	Test Site	Nutrients	Color (true)	51		PCU	2.5	6
9/9/2013 10:38	Test Site	Nutrients	Organic Carbon	19		mg C/L	0.5	1
9/9/2013 10:38	Test Site	Nutrients	Chloride	34		mg Cl/L	2	5
9/9/2013 10:38	Test Site	Nutrients	Alkalinity	328		mg CaCO3/L	0.65	2.5
9/9/2013 10:38	Test Site	Priority Organic Pollutants	1,4-Dioxane	0.020	U	ug/L	0.02	0.1
9/9/2013 10:38	Test Site	Field Parameter	Dissolved Oxygen	3.06		mg/L		
9/9/2013 10:38	Test Site	Field Parameter	pH	7.52				
9/9/2013 10:38	Test Site	Field Parameter	Temperature	24.8		C		
9/9/2013 10:38	Test Site	Field Parameter	Specific Conductance	1,440		umhos/cm		
9/9/2013 13:00	Field Blank	Metals	Aluminum	5.0	U	ug/L	5	20
9/9/2013 13:00	Field Blank	Metals	Lead	0.20	U	ug/L	0.2	0.8
9/9/2013 13:00	Field Blank	Metals	Cadmium	0.050	U	ug/L	0.05	0.2
9/9/2013 13:00	Field Blank	Metals	Chromium	0.30	U	ug/L	0.3	1.2
9/9/2013 13:00	Field Blank	Metals	Potassium	0.30	U	mg/L	0.3	1.2
9/9/2013 13:00	Field Blank	Metals	Arsenic	0.25	U	ug/L	0.25	1
9/9/2013 13:00	Field Blank	Metals	Magnesium	0.040	U	mg/L	0.04	0.16
9/9/2013 13:00	Field Blank	Metals	Sodium	0.50	U	mg/L	0.5	2
9/9/2013 13:00	Field Blank	Metals	Nickel	0.25	U	ug/L	0.25	1
9/9/2013 13:00	Field Blank	Metals	Zinc	5.0	U	ug/L	5	20

Date_Sampled	UDL	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
9/9/2013 13:00	Field Blank	Metals	Copper	0.50	U	ug/L	0.5	1
9/9/2013 13:00	Field Blank	Metals	Selenium	0.20	U	ug/L	0.2	0.8
9/9/2013 13:00	Field Blank	Metals	Silver	0.025	U	ug/L	0.025	0.1
9/9/2013 13:00	Field Blank	Metals	Iron	30	U	ug/L	30	120
9/9/2013 13:00	Field Blank	Metals	Hardness	0.50	I	mg/L	0.4	1.6
9/9/2013 13:00	Field Blank	Metals	Calcium	0.17	I	mg/L	0.075	0.3
9/9/2013 13:00	Field Blank	Nutrients	Color (true)	2.5	U	PCU	2.5	6
9/9/2013 13:00	Field Blank	Nutrients	Ammonia-N	0.002	U	mg N/L	0.002	0.005
9/9/2013 13:00	Field Blank	Nutrients	Organic Carbon	0.50	U	mg C/L	0.5	1
9/9/2013 13:00	Field Blank	Nutrients	Kjeldahl Nitrogen	0.080	U	mg N/L	0.08	0.2
9/9/2013 13:00	Field Blank	Nutrients	Fluoride	0.035	U	mg F/L	0.035	0.1
9/9/2013 13:00	Field Blank	Nutrients	NO2NO3-N	0.004	U	mg N/L	0.004	0.01
9/9/2013 13:00	Field Blank	Nutrients	Turbidity	0.10	U	NTU	0.1	0.1
9/9/2013 13:00	Field Blank	Nutrients	Alkalinity	0.65	U	mg CaCO3/L	0.65	2.5
9/9/2013 13:00	Field Blank	Nutrients	Sulfate	0.20	U	mg SO4/L	0.2	0.5
9/9/2013 13:00	Field Blank	Nutrients	O-Phosphate-P	0.004	U	mg P/L	0.004	0.01
9/9/2013 13:00	Field Blank	Nutrients	Total-P	0.002	U	mg P/L	0.002	0.005
9/9/2013 13:00	Field Blank	Nutrients	Chloride	0.20	U	mg Cl/L	0.2	0.5
9/9/2013 13:00	Field Blank	Pesticides	Ethoprop	0.0049	U	ug/L	0.0049	0.019
9/9/2013 13:00	Field Blank	Pesticides	Bromacil	0.039	U	ug/L	0.039	0.16
9/9/2013 13:00	Field Blank	Pesticides	Metolachlor	0.058	U	ug/L	0.058	0.23
9/9/2013 13:00	Field Blank	Pesticides	Fenamiphos	0.029	U	ug/L	0.029	0.12
9/9/2013 13:00	Field Blank	Pesticides	Ethion	0.0097	U	ug/L	0.0097	0.039
9/9/2013 13:00	Field Blank	Pesticides	Simazine	0.0097	U	ug/L	0.0097	0.039
9/9/2013 13:00	Field Blank	Pesticides	Prometryn	0.019	U	ug/L	0.019	0.078
9/9/2013 13:00	Field Blank	Pesticides	Metribuzin	0.019	U	ug/L	0.019	0.078
9/9/2013 13:00	Field Blank	Pesticides	Hexazinone	0.029	U	ug/L	0.029	0.12
9/9/2013 13:00	Field Blank	Pesticides	Chlorpyrifos Ethyl	0.0097	U	ug/L	0.0097	0.039
9/9/2013 13:00	Field Blank	Pesticides	Atrazine	0.0097	U	ug/L	0.0097	0.039
9/9/2013 13:00	Field Blank	Pesticides	Metalaxyl	0.039	U	ug/L	0.039	0.16
9/9/2013 13:00	Field Blank	Pesticides	Diazinon	0.0097	U	ug/L	0.0097	0.039
9/9/2013 13:00	Field Blank	Pesticides	Norflurazon	0.029	U	ug/L	0.029	0.12
9/9/2013 13:00	Field Blank	Pesticides	Naled	0.039	U	ug/L	0.039	0.16
9/9/2013 13:00	Field Blank	Pesticides	Fonofos	0.0097	U	ug/L	0.0097	0.039
9/9/2013 13:00	Field Blank	Pesticides	Phorate	0.0049	U	ug/L	0.0049	0.019
9/9/2013 13:00	Field Blank	Pesticides	Parathion Ethyl	0.019	U	ug/L	0.019	0.078
9/9/2013 13:00	Field Blank	Pesticides	Mevinphos	0.0097	UJ	ug/L	0.0097	0.039
9/9/2013 13:00	Field Blank	Pesticides	Ametryn	0.0097	UJ	ug/L	0.0097	0.039
9/9/2013 13:00	Field Blank	Pesticides	Alachlor	0.058	U	ug/L	0.058	0.23
9/9/2013 13:00	Field Blank	Pesticides	Parathion Methyl	0.0097	U	ug/L	0.0097	0.039
9/9/2013 13:00	Field Blank	Pesticides	Malathion	0.0097	U	ug/L	0.0097	0.039
9/9/2013 13:00	Field Blank	Pesticides	Chlorpyrifos Methyl	0.0097	U	ug/L	0.0097	0.039

Date_Sampled	UDL	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
9/9/2013 13:00	Field Blank	Pesticides	Azinphos Methyl	0.019	U	ug/L	0.019	0.078
9/9/2013 13:00	Field Blank	Pesticides	Butylate	0.019	U	ug/L	0.019	0.078
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	2,4-Dichlorophenol	0.95	U	ug/L	0.95	3.8
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Chrysene	0.19	U	ug/L	0.19	0.76
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Isophorone	0.95	U	ug/L	0.95	3.8
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	2.9	U	ug/L	2.9	11
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	2,4,6-Trichlorophenol	0.95	U	ug/L	0.95	3.8
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	2,6-Dinitrotoluene	0.95	U	ug/L	0.95	3.8
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Anthracene	0.19	U	ug/L	0.19	0.76
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Benzo(a)anthracene	0.19	U	ug/L	0.19	0.76
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.19	U	ug/L	0.19	0.76
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	2.9	U	ug/L	2.9	11
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Butyl benzyl phthalate	0.95	U	ug/L	0.95	3.8
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Di-n-butyl phthalate	0.95	U	ug/L	0.95	3.8
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Hexachlorocyclopentadiene	2.9	UJ	ug/L	2.9	11
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Pentachlorophenol	2.9	U	ug/L	2.9	11
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Pyrene	0.19	U	ug/L	0.19	0.76
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	1,4-Dioxane	0.020	U	ug/L	0.02	0.1
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	2,4-Dinitrotoluene	0.95	U	ug/L	0.95	3.8
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	1.9	U	ug/L	1.9	7.6
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Nitrobenzene	1.9	U	ug/L	1.9	7.6
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	1,2,4-Trichlorobenzene	0.95	U	ug/L	0.95	3.8
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	4-Chloro-3-methylphenol	0.95	U	ug/L	0.95	3.8
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Acenaphthene	0.19	U	ug/L	0.19	0.76
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	1.9	U	ug/L	1.9	7.6
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Diethyl phthalate	0.95	U	ug/L	0.95	3.8
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Naphthalene	0.19	U	ug/L	0.19	0.76
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	2-Chloronaphthalene	0.95	U	ug/L	0.95	3.8
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	2.9	U	ug/L	2.9	11
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	4-Nitrophenol	14	U	ug/L	14	57
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Benzo(a)pyrene	0.19	U	ug/L	0.19	0.76
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Benzo(k)fluoranthene	0.19	U	ug/L	0.19	0.76
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	0.95	U	ug/L	0.95	3.8
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Bis(2-chloroethyl)ether	0.95	U	ug/L	0.95	3.8
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.19	U	ug/L	0.19	0.76
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Phenanthrene	0.19	U	ug/L	0.19	0.76
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	2,4-Dinitrophenol	14	UJ	ug/L	14	57
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	2-Nitrophenol	0.95	U	ug/L	0.95	3.8
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	4-Bromophenyl phenyl ether	0.95	U	ug/L	0.95	3.8
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Acenaphthylene	0.19	U	ug/L	0.19	0.76
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Benzidine	95	U	ug/L	95	380
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Benzo(b)fluoranthene	0.19	U	ug/L	0.19	0.76

Date_Sampled	UDL	SCH_Group	Component	Value	Qualifier	Units	MDL	PQL
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.19	U	ug/L	0.19	0.76
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Fluoranthene	0.19	U	ug/L	0.19	0.76
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Hexachlorobenzene	0.95	U	ug/L	0.95	3.8
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	3,3'-Dichlorobenzidine	38	U	ug/L	38	150
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Di-n-octyl phthalate	0.95	U	ug/L	0.95	3.8
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Hexachlorobutadiene	2.9	U	ug/L	2.9	11
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Hexachloroethane	2.9	U	ug/L	2.9	11
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	N-Nitrosodimethylamine	1.9	U	ug/L	1.9	7.6
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Phenol	0.95	U	ug/L	0.95	3.8
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	2,4-Dimethylphenol	9.5	U	ug/L	9.5	38
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	2-Chlorophenol	0.95	U	ug/L	0.95	3.8
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Dimethyl phthalate	0.95	U	ug/L	0.95	3.8
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	Fluorene	0.19	U	ug/L	0.19	0.76
9/9/2013 13:00	Field Blank	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	1.9	U	ug/L	1.9	7.6

The Bioassay of the Telogia Power LLC effluent sampled on September 9, 2013, NPDES #FL0039951

Fill Out This Section For All Surface Water Discharger Inspections(CEI, CSI, CBI, PAI, XSI-RI Optional)

Transaction Code	NPDES NUMBER	YR/MO/DA	Insp Type	Inspector	Fac Type
1 N 2 5	3 FL0039951 11	12 130909	# B	# S	# 2

Remarks

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The Priority Pollutants Analysis of the Telogia Power LLC effluent sampled on September 9, 2013 NPDES #FL0039951

Fill Out This Section For All Surface Water Discharger Inspections(CEI, CSI, CBI, PAI, XSI-RI Optional)

Transaction Code	NPDES NUMBER	YR/MO/DA	Insp Type	Inspector	Fac Type
1 N 2 5	3 FL0039951 11	12 130909	# X	# S	# 2

Remarks

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Biological Analyses of the Telogia Power LLC effluent sampled on September 9, 2013, NPDES #FL0039951

Fill Out This Section For All Surface Water Discharger Inspections(CEI, CSI, CBI, PAI, XSI-RI Optional)

Transaction Code	NPDES NUMBER	YR/MO/DA	Insp Type	Inspector	Fac Type
1 N 2 5	3 FL0039951 11	12 130909	# S	# S	# 2

Remarks

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