

Effluent Quality Assessment

Hiawatha Condominiums WWTF

Putnam County

NPDES #FL0043389

Sampled April 11, 2011

June 2011

Biology Section
Bureau of Laboratories
Division of Environmental Assessment and Restoration

Quality Manual No. 870346G
NELAC Certification No. E31780

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Hiawatha Condominiums WWTF, 116 Hiawatha Court, East Palatka, Putnam County, Florida, 32131. NPDES #FL0043389. Effluent grab samples for biological and chemical analyses for this facility were collected on April 11, 2011.

Introduction

Hiawatha Condominiums WWTF (wastewater treatment facility) is an advanced wastewater treatment facility which uses the activated-sludge process to treat domestic wastewater. (See Appendix C for detailed facility information provided by Courtney Gamble of FDEP Northeast District. Storet conductivity data provided by Eesa Ali of FDEP Northeast District.)

Methods

Samples were collected from the EFD-1 NPDES sampling point for Outfall D-001 by Sharon Piltz and Eesa Ali (FDEP Northeast District) following DEP-SOP-001/01 FS 2400 Wastewater Sampling. All DEP SOPs are available on the web at: http://www.floridadep.org/labs/bars/sas/sop/index.htm.

See Appendix A for the completed chain of custody form.

Bioassay and Algal Growth Potential (AGP) analyses were not performed due to the physical/chemical characteristics of the sample. The sample arrived in the laboratory with a pH of 4.2 SU and a dissolved oxygen (DO) concentration of 0.3 mg/L. Attempts to adjust the pH and DO of the sample to meet minimum test requirements were unsuccessful.

Results and Discussion

- **Toxicity Test Results**
  Bioassay tests were not performed.

- **Algal Growth Potential**
  The Algal Growth Potential analysis was not performed.

- **Chemistry Results**
  Total residual chlorine was not detected in the effluent in the bioassay laboratory. Total ammonia (47.5 mg N/L) was detected in the effluent in the bioassay laboratory. The total ammonia concentration in the sample collected and preserved for chemical analysis was 11 mg N/L. Based on the pH, salinity, and temperature of the effluent as collected, the calculated unionized ammonia concentration was < 0.02 mg N/L.

  Copper, iron, and zinc were detected in the effluent at levels that comply with Class III fresh water quality criteria (62-302.530, F.A.C.). Benzo(b)fluoranthene, chromium-III, chrysene, fluoranthene, fluoride, lead, nickel, and pyrene were detected between the laboratory method detection limits (MDL) and practical quantitation limits (PQL). Aluminum, chloride, chlorophyll *a,* and sulfate were also detected in the effluent. Fecal coliforms (4100 CFU/100mL) greatly exceeded both the Class III freshwater single sample and the permitted single sample criteria.

  The effluents dissolved oxygen (2.5 mg/L J*), pH (4.0 SU)), TSS (11 mg/L I**), carbonaceous biochemical oxygen demand (110 mg/L L***), and total nitrogen (14.14 mg/L) exceeded either their respective Class III freshwater criterion or permitted limits. Effluent conductivity (2096 µmhos-cm) was more than 50% greater than the highest conductivity (1352 µmhos-cm) recorded in the Storet data base from 1999-2011 for numerous stations located within 1 km of the facility's D-001 Outfall. Based on the highest value and the range (884-1352 µmhos-cm) of conductivity values it is likely that the effluent conductivity exceeded the freshwater criterion for specific conductance (limit ≤1275 µmhos-cm or increased >50% above background, 62-302.530 (22)).

* J-Estimated value. (DO field meter continuing calibration failure). The DO of the bioassay sample as received in the bioassay laboratory was 0.3 mg/L.

** 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.

See Table 1 for results of analytes detected in the effluent, and corresponding limits. See Appendix B for a complete list of chemical analyses performed.

Conclusion

Due to the physical/chemical characteristics of the effluent sample collected from the EFD-1 NPDES sampling point for Outfall D-001 for this facility on April 11, 2011, the bioassays and the algal growth potential test were not performed. Effluent water quality samples collected on April 11, 2011, exceeded applicable water quality standards and/or permit conditions for carbonaceous biochemical oxygen demand, dissolved oxygen, fecal coliforms, pH, total nitrogen and total suspended solids. Background data suggests that the effluent conductivity also exceeded Class III freshwater criterion.

Table 1. Effluent limits, Class III Freshwater Criteria and chemical and microbiological data for samples collected from the Hiawatha Condominiums WWTF facility on April 11, 2011.

Hiawatha Condominiums WWTF NPDES# FL0043389	Class III Criteria	Effluent Limits	Effluent	
Organic Constituents (µg/L)				
Benzo(b)fluoranthene	≤ 0.031 a	-	0.45	I
Chrysene	≤ 0.031 a	-	0.38	I
Fluoranthene	≤ 370	-	0.33	I
Pyrene	≤ 11,000	-	0.29	IJ
Metals (µg/L unless otherwise noted)				
Aluminum	-	-	401	
Arsenic	≤ 50	-	0.25	U
Cadmium	≤ 0.3 b	-	0.05	U
Calcium (mg/L)	-	-	27.7	
Chromium-III	≤ 95.7 b	-	0.58	I
Copper	≤ 10.4 b	-	2.13	
Iron	≤ 1,000	-	180	
Lead	≤ 3.7 b	-	0.49	I
Magnesium (mg/L)	-	-	10.8	
Nickel	≤ 58.1 b	-	2	I
Selenium	≤ 5.0	-	0.2	U
Silver	≤ 0.07	-	0.025	U
Zinc	≤ 133.5 b	-	28	
Nutrients (mg/L)				
Ortho-phosphate	-	-	0.042	
Total Phosphorus	-	≤ 2.0 s	0.28	
Total Ammonia	-	-	11	
Un-ionized Ammonia	≤ 0.02 s	-	≤ 0.02	c
Nitrate and Nitrite	-	-	0.14	
Total Kjeldahl Nitrogen	-	-	14	
Organic Nitrogen	-	-	3	c
Total Nitrogen	-	≤ 6.0 s	14.14	c
General Physical and Chemical Parameters				
Dissolved Oxygen (mg/L)	≥ 5.0	≥ 5.0 s	2.5	
pH (SU)	6.0 - 8.5	6.0 - 8.5 s	4.0	
Conductivity (µmhos/cm)	≤ 1,275	-	2096	
Temperature (°C)	-	-	24.1	
Sample Depth (m)	-	-	0.1	
Total Residual Chlorine (mg/L)	≤ 0.01	-	0.03	UQ£
Chlorophyll *a* (µg/L) - Corrected	-	-	16	
Phaeophytin (µg/L)	-	-	0.4	U
Total Suspended Solids (mg/L)	-	≤ 10.0 s	11	I
CBOD, 5 day (mg/L), N - inhibited	-	≤ 10.0 s	110	L
Chloride (mg/L)	-	-	110	
Fluoride (mg/L)	≤ 10.0	-	0.096	I
Flow MGD (11/30/09 - 11/30/10)	-	0.036 a	0.023	a
Sulfate (mg/L)	-	-	700	J
Hardness (mg $CaCO_3$)	-	-	113.64	c
Microbiology (Number of colony forming units/100ml)				
Fecal Coliforms ¥	≤ 400 s #	≤ 800 s	4100	

Value exceeds the Class III Water Quality Criteria or permit limits

a - Annual average
b - Value is calculated based on hardness
c - Value is calculated
s - Single sample
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
J - Estimated value
L - Actual value is known to be greater than value given
Q - Sample held beyond normal holding time
U - Material analyzed for but not detected; value reported is the method detection limit
¥ - Fecal coliform analysis performed by Columbia Analytical Services lab
- If 10 or fewer samples are taken within a month, the single sample limit is 400 CFU (62-302.530(6), F.A.C.)
£ - measurement taken in the FDEP laboratory

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2011-04-11-33
Sampling Inspection for Hiawatha & Hart Point WWTF

Requester: Edward Smith
Field Report Prepared By: S.Piltz
Collected By: S.Piltz / E.Ali
Send Final Report To: Tom Kallemeyn
Sampling Agency: NED DEP

Customer: NE-DIST
Project ID: FYI3
PMAS: 1143

Lab ID * | Location: Hiawatha & Hart Point WWTP 3YI | Field ID

Matrix (include type e.g. Salt, Fresh, etc): Fresh Eff | Temp (C): 24.14 | pH: 4.04
Latitude ☐ dd ☐ dms | Longitude ☐ dd ☐ dms

☐ Comp ☒ Grab | Collection (begin) Eastern: Date 4/11/11 Time 1015 Central | Collection (end) Eastern: Date Time Central | Bottle Group(s)**: A
Tot Res Chlorine (mg/L) | Diss Oxygen (mg/L): 2.52 J | Storet Station Number
Sample Depth ☐ m ☐ ft | 1.07 ☐ Salinity (PPTh) | 2096 ☐ Sp Conductance (umho/cm) | NPDES Number
Comments: DO Failed CCV

Lab ID * | Location: Blank | Field ID

Matrix (include type e.g. Salt, Fresh, etc): DI | Temp (C) | pH
Latitude ☐ dd ☐ dms | Longitude ☐ dd ☐ dms

☐ Comp ☒ Grab | Collection (begin) Eastern: Date 4/11/11 Time 1080 Central | Collection (end) Eastern: Date Time Central | Bottle Group(s)**: B
Tot Res Chlorine (mg/L) | Diss Oxygen (mg/L) | Storet Station Number
Sample Depth ☐ m ☐ ft | ☐ Salinity (PPTh) | ☐ Sp Conductance (umho/cm) | NPDES Number
Comments

Lab ID * | Location | Field ID

Matrix (include type e.g. Salt, Fresh, etc) | Temp (C) | pH
Latitude ☐ dd ☐ dms | Longitude ☐ dd ☐ dms

☐ Comp ☐ Grab | Collection (begin) Eastern: Date Time Central | Collection (end) Eastern: Date Time Central | Bottle Group(s)**
Tot Res Chlorine (mg/L) | Diss Oxygen (mg/L) | Storet Station Number
Sample Depth ☐ m ☐ ft | ☐ Salinity (PPTh) | ☐ Sp Conductance (umho/cm) | NPDES Number
Comments

Lab ID * | Location | Field ID

Matrix (include type e.g. Salt, Fresh, etc) | Temp (C) | pH
Latitude ☐ dd ☐ dms | Longitude ☐ dd ☐ dms

☐ Comp ☐ Grab | Collection (begin) Eastern: Date Time Central | Collection (end) Eastern: Date Time Central | Bottle Group(s)**
Tot Res Chlorine (mg/L) | Diss Oxygen (mg/L) | Storet Station Number
Sample Depth ☐ m ☐ ft | ☐ Salinity (PPTh) | ☐ Sp Conductance (umho/cm) | NPDES Number
Comments: 2 bioassay. Rec'd in fax by J.D. 10:23 4/12/11

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
	4/11/11	FedEx					CRC	4/12/11 920A

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

Appendix B. Chemical Analyses performed on the effluent from the Hiawatha Condominiums WWTF facility Outfall D-001, sampled on April 11, 2011.

DateSampled	Sample ID	Analysis	Component	Result	Qualifier	Units	MDL	PQL
4/11/2011 10:15	Effluent	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	110	L	mg/L	0.2	2
4/11/2011 10:15	Effluent	Chlorophyll/Grain Size/BOD	Phaeophytin-a	0.4	U	ug/L	0.4	1.2
4/11/2011 10:15	Effluent	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	16		ug/L	0.55	1.7
4/11/2011 10:15	Effluent	Overflow	Fecal Coliforms-Membrane Filter	4100		cfu/100 mL	100	100
4/11/2011 10:15	Effluent	Metals	Sodium	571		mg/L	2.5	10
4/11/2011 10:15	Effluent	Metals	Nickel	2	I	ug/L	0.75	3
4/11/2011 10:15	Effluent	Metals	Iron	180		ug/L	30	120
4/11/2011 10:15	Effluent	Metals	Aluminum	401		ug/L	5	20
4/11/2011 10:15	Effluent	Metals	Magnesium	10.8		mg/L	0.04	0.16
4/11/2011 10:15	Effluent	Metals	Copper	2.13		ug/L	0.5	1
4/11/2011 10:15	Effluent	Metals	Calcium	27.7		mg/L	0.075	0.3
4/11/2011 10:15	Effluent	Metals	Arsenic	0.25	U	ug/L	0.25	1
4/11/2011 10:15	Effluent	Metals	Cadmium	0.05	U	ug/L	0.05	0.2
4/11/2011 10:15	Effluent	Metals	Selenium	0.2	U	ug/L	0.2	0.8
4/11/2011 10:15	Effluent	Metals	Silver	0.025	U	ug/L	0.025	0.1
4/11/2011 10:15	Effluent	Metals	Zinc	28		ug/L	5	20
4/11/2011 10:15	Effluent	Metals	Chromium	0.58	I	ug/L	0.3	1.2
4/11/2011 10:15	Effluent	Metals	Lead	0.49	I	ug/L	0.2	0.8
4/11/2011 10:15	Effluent	Nutrients	Fluoride	0.096	I	mg F/L	0.035	0.1
4/11/2011 10:15	Effluent	Nutrients	NO2NO3-N	0.14		mg N/L	0.004	0.01
4/11/2011 10:15	Effluent	Nutrients	Kjeldahl Nitrogen	14		mg N/L	0.4	1
4/11/2011 10:15	Effluent	Nutrients	Chloride	110		mg Cl/L	2	5
4/11/2011 10:15	Effluent	Nutrients	Ammonia-N	11		mg N/L	0.25	0.5
4/11/2011 10:15	Effluent	Nutrients	O-Phosphate-P	0.042		mg P/L	0.004	0.01
4/11/2011 10:15	Effluent	Nutrients	Sulfate	700	J	mg SO4/L	10	25
4/11/2011 10:15	Effluent	Nutrients	TSS	11	I	mg/L	4	16
4/11/2011 10:15	Effluent	Nutrients	Total-P	0.28		mg P/L	0.005	0.05
4/11/2011 10:15	Effluent	Nutrients	Organic Carbon	7.6		mg C/L	1	5
4/11/2011 10:15	Effluent	Nutrients	Alkalinity	0.65	U	mg CaCO3/L	0.65	2.5
4/11/2011 10:15	Effluent	Pesticides	Chlorpyrifos Methyl	0.098	U	ug/L	0.098	0.39

Appendix B. continued

DateSampled	Sample ID	Analysis	Component	Result	Qualifier	Units	MDL	PQL
4/11/2011 10:15	Effluent	Pesticides	Diazinon	0.049	U	ug/L	0.049	0.2
4/11/2011 10:15	Effluent	Pesticides	Fonofos	0.098	U	ug/L	0.098	0.39
4/11/2011 10:15	Effluent	Pesticides	Hexazinone	0.098	U	ug/L	0.098	0.39
4/11/2011 10:15	Effluent	Pesticides	Azinphos Methyl	0.2	U	ug/L	0.2	0.78
4/11/2011 10:15	Effluent	Pesticides	Bromacil	0.2	U	ug/L	0.2	0.78
4/11/2011 10:15	Effluent	Pesticides	Metalaxyl	0.25	U	ug/L	0.25	0.98
4/11/2011 10:15	Effluent	Pesticides	Mevinphos	0.2	U	ug/L	0.2	0.78
4/11/2011 10:15	Effluent	Pesticides	Chlorpyrifos Ethyl	0.049	U	ug/L	0.049	0.2
4/11/2011 10:15	Effluent	Pesticides	Ethoprop	0.098	U	ug/L	0.098	0.39
4/11/2011 10:15	Effluent	Pesticides	Ethion	0.049	U	ug/L	0.049	0.2
4/11/2011 10:15	Effluent	Pesticides	Metolachlor	0.49	U	ug/L	0.49	2
4/11/2011 10:15	Effluent	Pesticides	Metribuzin	0.098	U	ug/L	0.098	0.39
4/11/2011 10:15	Effluent	Pesticides	Naled	0.78	U	ug/L	0.78	3.1
4/11/2011 10:15	Effluent	Pesticides	Norflurazon	0.15	U	ug/L	0.15	0.59
4/11/2011 10:15	Effluent	Pesticides	Parathion Methyl	0.098	U	ug/L	0.098	0.39
4/11/2011 10:15	Effluent	Pesticides	Prometryn	0.15	U	ug/L	0.15	0.59
4/11/2011 10:15	Effluent	Pesticides	Atrazine	0.049	U	ug/L	0.049	0.2
4/11/2011 10:15	Effluent	Pesticides	Fenamiphos	0.2	U	ug/L	0.2	0.78
4/11/2011 10:15	Effluent	Pesticides	Ametryn	0.049	U	ug/L	0.049	0.2
4/11/2011 10:15	Effluent	Pesticides	Butylate	0.2	U	ug/L	0.2	0.78
4/11/2011 10:15	Effluent	Pesticides	Malathion	0.15	U	ug/L	0.15	0.59
4/11/2011 10:15	Effluent	Pesticides	Parathion Ethyl	0.15	U	ug/L	0.15	0.59
4/11/2011 10:15	Effluent	Pesticides	Simazine	0.049	U	ug/L	0.049	0.2
4/11/2011 10:15	Effluent	Pesticides	Alachlor	0.59	U	ug/L	0.59	2.4
4/11/2011 10:15	Effluent	Pesticides	Phorate	0.049	U	ug/L	0.049	0.2
4/11/2011 10:15	Effluent	Priority Organic Pollutants	2,4-Dinitrophenol	16	U	ug/L	16	65
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Phenanthrene	0.22	U	ug/L	0.22	0.86
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Chrysene	0.38	I	ug/L	0.22	0.86
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Hexachlorocyclopentadiene	3.2	U	ug/L	3.2	13
4/11/2011 10:15	Effluent	Priority Organic Pollutants	2,4-Dichlorophenol	1.1	U	ug/L	1.1	4.3
4/11/2011 10:15	Effluent	Priority Organic Pollutants	4-Bromophenyl phenyl ether	1.1	U	ug/L	1.1	4.3
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Benzo(b)fluoranthene	0.45	I	ug/L	0.22	0.86
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	3.2	U	ug/L	3.2	13
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Di-n-butyl phthalate	5.4	UJ	ug/L	5.4	22

Appendix B. continued

DateSampled	Sample ID	Analysis	Component	Result	Qualifier	Units	MDL	PQL
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Fluoranthene	0.33	I	ug/L	0.22	0.86
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Hexachlorobutadiene	3.2	U	ug/L	3.2	13
4/11/2011 10:15	Effluent	Priority Organic Pollutants	N-Nitrosodimethylamine	2.2	U	ug/L	2.2	8.6
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Naphthalene	0.22	U	ug/L	0.22	0.86
4/11/2011 10:15	Effluent	Priority Organic Pollutants	1,2,4-Trichlorobenzene	1.1	U	ug/L	1.1	4.3
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Benzo(a)anthracene	0.22	U	ug/L	0.22	0.86
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Bis(2-chloroethyl)ether	1.1	U	ug/L	1.1	4.3
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Diethyl phthalate	1.1	U	ug/L	1.1	4.3
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Fluorene	0.22	U	ug/L	0.22	0.86
4/11/2011 10:15	Effluent	Priority Organic Pollutants	2-Chloronaphthalene	1.1	U	ug/L	1.1	4.3
4/11/2011 10:15	Effluent	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3.2	U	ug/L	3.2	13
4/11/2011 10:15	Effluent	Priority Organic Pollutants	4-Nitrophenol	16	U	ug/L	16	65
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Dimethyl phthalate	11	U	ug/L	11	43
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Hexachloroethane	3.2	U	ug/L	3.2	13
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Benzidine	110	U	ug/L	110	430
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Di-n-octyl phthalate	1.1	U	ug/L	1.1	4.3
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Isophorone	1.1	U	ug/L	1.1	4.3
4/11/2011 10:15	Effluent	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	3.2	U	ug/L	3.2	13
4/11/2011 10:15	Effluent	Priority Organic Pollutants	2,4,6-Trichlorophenol	1.1	U	ug/L	1.1	4.3
4/11/2011 10:15	Effluent	Priority Organic Pollutants	2,4-Dinitrotoluene	1.1	U	ug/L	1.1	4.3
4/11/2011 10:15	Effluent	Priority Organic Pollutants	2-Chlorophenol	1.1	U	ug/L	1.1	4.3
4/11/2011 10:15	Effluent	Priority Organic Pollutants	2-Nitrophenol	1.1	U	ug/L	1.1	4.3
4/11/2011 10:15	Effluent	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2.2	U	ug/L	2.2	8.6
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Acenaphthene	0.22	U	ug/L	0.22	0.86
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.22	U	ug/L	0.22	0.86
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.22	U	ug/L	0.22	0.86
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Nitrobenzene	2.2	U	ug/L	2.2	8.6
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Phenol	1.1	U	ug/L	1.1	4.3
4/11/2011 10:15	Effluent	Priority Organic Pollutants	2,4-Dimethylphenol	11	U	ug/L	11	43
4/11/2011 10:15	Effluent	Priority Organic Pollutants	2,6-Dinitrotoluene	1.1	U	ug/L	1.1	4.3
4/11/2011 10:15	Effluent	Priority Organic Pollutants	4-Chloro-3-methylphenol	1.1	U	ug/L	1.1	4.3
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Anthracene	0.22	U	ug/L	0.22	0.86
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Benzo(a)pyrene	0.22	U	ug/L	0.22	0.86
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Benzo(k)fluoranthene	0.22	U	ug/L	0.22	0.86

Appendix B. continued

DateSampled	Sample ID	Analysis	Component	Result	Qualifier	Units	MDL	PQL
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Hexachlorobenzene	1.1	U	ug/L	1.1	4.3
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.22	U	ug/L	0.22	0.86
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Pyrene	0.29	IJ	ug/L	0.22	0.86
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Acenaphthylene	0.22	U	ug/L	0.22	0.86
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	1.1	U	ug/L	1.1	4.3
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	16	U	ug/L	16	65
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Butyl benzyl phthalate	5.4	U	ug/L	5.4	22
4/11/2011 10:15	Effluent	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2.2	U	ug/L	2.2	8.6
4/11/2011 10:15	Effluent	Priority Organic Pollutants	Pentachlorophenol	3.2	U	ug/L	3.2	13
4/11/2011 10:15	Effluent	Priority Organic Pollutants	3,3'-Dichlorobenzidine	43	U	ug/L	43	170
4/11/2011 10:15	Effluent	Field Parameter	Dissolved Oxygen	2.52		mg/L		
4/11/2011 10:15	Effluent	Field Parameter	pH	4.04				
4/11/2011 10:15	Effluent	Field Parameter	Sample Depth	0.1		m		
4/11/2011 10:15	Effluent	Field Parameter	Temperature	24.14		C		
4/11/2011 10:15	Effluent	Field Parameter	Specific Conductance	2096		umhos/cm		
4/11/2011 10:30	Blank	Metals	Zinc	5	U	ug/L	5	20
4/11/2011 10:30	Blank	Metals	Selenium	0.2	U	ug/L	0.2	0.8
4/11/2011 10:30	Blank	Metals	Arsenic	0.25	U	ug/L	0.25	1
4/11/2011 10:30	Blank	Metals	Magnesium	0.04	U	mg/L	0.04	0.16
4/11/2011 10:30	Blank	Metals	Iron	30	U	ug/L	30	120
4/11/2011 10:30	Blank	Metals	Calcium	0.075	U	mg/L	0.075	0.3
4/11/2011 10:30	Blank	Metals	Silver	0.025	U	ug/L	0.025	0.1
4/11/2011 10:30	Blank	Metals	Chromium	0.3	U	ug/L	0.3	1.2
4/11/2011 10:30	Blank	Metals	Nickel	0.25	U	ug/L	0.25	1
4/11/2011 10:30	Blank	Metals	Sodium	0.5	U	mg/L	0.5	2
4/11/2011 10:30	Blank	Metals	Copper	0.5	U	ug/L	0.5	1
4/11/2011 10:30	Blank	Metals	Lead	0.2	U	ug/L	0.2	0.8
4/11/2011 10:30	Blank	Metals	Cadmium	0.05	U	ug/L	0.05	0.2
4/11/2011 10:30	Blank	Metals	Aluminum	5	U	ug/L	5	20
4/11/2011 10:30	Blank	Nutrients	Fluoride	0.035	U	mg F/L	0.035	0.1
4/11/2011 10:30	Blank	Nutrients	Sulfate	0.2	U	mg SO4/L	0.2	0.5
4/11/2011 10:30	Blank	Nutrients	Chloride	0.2	U	mg Cl/L	0.2	0.5
4/11/2011 10:30	Blank	Nutrients	Alkalinity	0.65	U	mg CaCO3/L	0.65	2.5
4/11/2011 10:30	Blank	Nutrients	Kjeldahl Nitrogen	0.08	U	mg N/L	0.08	0.2

Appendix B. continued

DateSampled	Sample ID	Analysis	Component	Result	Qualifier	Units	MDL	PQL
4/11/2011 10:30	Blank	Nutrients	Total-P	0.004	U	mg P/L	0.004	0.01
4/11/2011 10:30	Blank	Nutrients	Ammonia-N	0.01	U	mg N/L	0.01	0.02
4/11/2011 10:30	Blank	Nutrients	NO2NO3-N	0.004	U	mg N/L	0.004	0.01
4/11/2011 10:30	Blank	Nutrients	O-Phosphate-P	0.004	UQ	mg P/L	0.004	0.01
4/11/2011 10:30	Blank	Nutrients	Organic Carbon	1	U	mg C/L	1	5
4/11/2011 10:30	Blank	Pesticides	Malathion	0.17	U	ug/L	0.17	0.69
4/11/2011 10:30	Blank	Pesticides	Naled	0.92	U	ug/L	0.92	3.7
4/11/2011 10:30	Blank	Pesticides	Alachlor	0.69	U	ug/L	0.69	2.7
4/11/2011 10:30	Blank	Pesticides	Bromacil	0.23	U	ug/L	0.23	0.92
4/11/2011 10:30	Blank	Pesticides	Butylate	0.23	U	ug/L	0.23	0.92
4/11/2011 10:30	Blank	Pesticides	Chlorpyrifos Ethyl	0.057	U	ug/L	0.057	0.23
4/11/2011 10:30	Blank	Pesticides	Ethion	0.057	U	ug/L	0.057	0.23
4/11/2011 10:30	Blank	Pesticides	Metribuzin	0.11	U	ug/L	0.11	0.46
4/11/2011 10:30	Blank	Pesticides	Parathion Methyl	0.11	U	ug/L	0.11	0.46
4/11/2011 10:30	Blank	Pesticides	Phorate	0.057	U	ug/L	0.057	0.23
4/11/2011 10:30	Blank	Pesticides	Ametryn	0.057	U	ug/L	0.057	0.23
4/11/2011 10:30	Blank	Pesticides	Atrazine	0.057	U	ug/L	0.057	0.23
4/11/2011 10:30	Blank	Pesticides	Azinphos Methyl	0.23	U	ug/L	0.23	0.92
4/11/2011 10:30	Blank	Pesticides	Chlorpyrifos Methyl	0.11	U	ug/L	0.11	0.46
4/11/2011 10:30	Blank	Pesticides	Ethoprop	0.11	U	ug/L	0.11	0.46
4/11/2011 10:30	Blank	Pesticides	Hexazinone	0.11	U	ug/L	0.11	0.46
4/11/2011 10:30	Blank	Pesticides	Mevinphos	0.23	U	ug/L	0.23	0.92
4/11/2011 10:30	Blank	Pesticides	Parathion Ethyl	0.17	U	ug/L	0.17	0.69
4/11/2011 10:30	Blank	Pesticides	Simazine	0.057	U	ug/L	0.057	0.23
4/11/2011 10:30	Blank	Pesticides	Fonofos	0.11	U	ug/L	0.11	0.46
4/11/2011 10:30	Blank	Pesticides	Norflurazon	0.17	U	ug/L	0.17	0.69
4/11/2011 10:30	Blank	Pesticides	Diazinon	0.057	U	ug/L	0.057	0.23
4/11/2011 10:30	Blank	Pesticides	Fenamiphos	0.23	U	ug/L	0.23	0.92
4/11/2011 10:30	Blank	Pesticides	Metalaxyl	0.29	U	ug/L	0.29	1.1
4/11/2011 10:30	Blank	Pesticides	Metolachlor	0.57	U	ug/L	0.57	2.3
4/11/2011 10:30	Blank	Pesticides	Prometryn	0.17	U	ug/L	0.17	0.69
4/11/2011 10:30	Blank	Priority Organic Pollutants	2,4-Dichlorophenol	1	U	ug/L	1	4
4/11/2011 10:30	Blank	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2	U	ug/L	2	8
4/11/2011 10:30	Blank	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	1	U	ug/L	1	4

Appendix B. continued

DateSampled	Sample ID	Analysis	Component	Result	Qualifier	Units	MDL	PQL
4/11/2011 10:30	Blank	Priority Organic Pollutants	Diethyl phthalate	1	U	ug/L	1	4
4/11/2011 10:30	Blank	Priority Organic Pollutants	Hexachlorobenzene	1	U	ug/L	1	4
4/11/2011 10:30	Blank	Priority Organic Pollutants	Isophorone	1	U	ug/L	1	4
4/11/2011 10:30	Blank	Priority Organic Pollutants	Phenol	1	U	ug/L	1	4
4/11/2011 10:30	Blank	Priority Organic Pollutants	2,4,6-Trichlorophenol	1	U	ug/L	1	4
4/11/2011 10:30	Blank	Priority Organic Pollutants	2,4-Dimethylphenol	10	U	ug/L	10	40
4/11/2011 10:30	Blank	Priority Organic Pollutants	2-Chloronaphthalene	1	U	ug/L	1	4
4/11/2011 10:30	Blank	Priority Organic Pollutants	2-Nitrophenol	1	U	ug/L	1	4
4/11/2011 10:30	Blank	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2	U	ug/L	2	8
4/11/2011 10:30	Blank	Priority Organic Pollutants	Benzidine	100	U	ug/L	100	400
4/11/2011 10:30	Blank	Priority Organic Pollutants	Benzo(k)fluoranthene	0.2	U	ug/L	0.2	0.8
4/11/2011 10:30	Blank	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	3	U	ug/L	3	12
4/11/2011 10:30	Blank	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	15	U	ug/L	15	60
4/11/2011 10:30	Blank	Priority Organic Pollutants	Dimethyl phthalate	10	U	ug/L	10	40
4/11/2011 10:30	Blank	Priority Organic Pollutants	Naphthalene	0.2	U	ug/L	0.2	0.8
4/11/2011 10:30	Blank	Priority Organic Pollutants	2,6-Dinitrotoluene	1	U	ug/L	1	4
4/11/2011 10:30	Blank	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	3	U	ug/L	3	12
4/11/2011 10:30	Blank	Priority Organic Pollutants	4-Nitrophenol	15	U	ug/L	15	60
4/11/2011 10:30	Blank	Priority Organic Pollutants	Bis(2-chloroethyl)ether	1	U	ug/L	1	4
4/11/2011 10:30	Blank	Priority Organic Pollutants	Di-n-butyl phthalate	5	UJ	ug/L	5	20
4/11/2011 10:30	Blank	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.2	U	ug/L	0.2	0.8
4/11/2011 10:30	Blank	Priority Organic Pollutants	Fluoranthene	0.2	U	ug/L	0.2	0.8
4/11/2011 10:30	Blank	Priority Organic Pollutants	Fluorene	0.2	U	ug/L	0.2	0.8
4/11/2011 10:30	Blank	Priority Organic Pollutants	Hexachlorobutadiene	3	U	ug/L	3	12
4/11/2011 10:30	Blank	Priority Organic Pollutants	Phenanthrene	0.2	U	ug/L	0.2	0.8
4/11/2011 10:30	Blank	Priority Organic Pollutants	4-Chloro-3-methylphenol	1	U	ug/L	1	4
4/11/2011 10:30	Blank	Priority Organic Pollutants	Di-n-octyl phthalate	1	U	ug/L	1	4
4/11/2011 10:30	Blank	Priority Organic Pollutants	2-Chlorophenol	1	U	ug/L	1	4
4/11/2011 10:30	Blank	Priority Organic Pollutants	Pentachlorophenol	3	U	ug/L	3	12
4/11/2011 10:30	Blank	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	3	U	ug/L	3	12
4/11/2011 10:30	Blank	Priority Organic Pollutants	Hexachlorocyclopentadiene	3	U	ug/L	3	12
4/11/2011 10:30	Blank	Priority Organic Pollutants	Benzo(b)fluoranthene	0.2	U	ug/L	0.2	0.8
4/11/2011 10:30	Blank	Priority Organic Pollutants	1,2,4-Trichlorobenzene	1	U	ug/L	1	4
4/11/2011 10:30	Blank	Priority Organic Pollutants	Acenaphthene	0.2	U	ug/L	0.2	0.8

Appendix B. continued

DateSampled	Sample ID	Analysis	Component	Result	Qualifier	Units	MDL	PQL
4/11/2011 10:30	Blank	Priority Organic Pollutants	Benzo(a)pyrene	0.2	U	ug/L	0.2	0.8
4/11/2011 10:30	Blank	Priority Organic Pollutants	Chrysene	0.2	U	ug/L	0.2	0.8
4/11/2011 10:30	Blank	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.2	U	ug/L	0.2	0.8
4/11/2011 10:30	Blank	Priority Organic Pollutants	Nitrobenzene	2	U	ug/L	2	8
4/11/2011 10:30	Blank	Priority Organic Pollutants	Pyrene	0.2	UJ	ug/L	0.2	0.8
4/11/2011 10:30	Blank	Priority Organic Pollutants	2,4-Dinitrophenol	15	U	ug/L	15	60
4/11/2011 10:30	Blank	Priority Organic Pollutants	4-Bromophenyl phenyl ether	1	U	ug/L	1	4
4/11/2011 10:30	Blank	Priority Organic Pollutants	Acenaphthylene	0.2	U	ug/L	0.2	0.8
4/11/2011 10:30	Blank	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.2	U	ug/L	0.2	0.8
4/11/2011 10:30	Blank	Priority Organic Pollutants	Hexachloroethane	3	U	ug/L	3	12
4/11/2011 10:30	Blank	Priority Organic Pollutants	N-Nitrosodimethylamine	2	U	ug/L	2	8
4/11/2011 10:30	Blank	Priority Organic Pollutants	2,4-Dinitrotoluene	1	U	ug/L	1	4
4/11/2011 10:30	Blank	Priority Organic Pollutants	3,3'-Dichlorobenzidine	40	U	ug/L	40	160
4/11/2011 10:30	Blank	Priority Organic Pollutants	Butyl benzyl phthalate	5	U	ug/L	5	20
4/11/2011 10:30	Blank	Priority Organic Pollutants	Anthracene	0.2	U	ug/L	0.2	0.8
4/11/2011 10:30	Blank	Priority Organic Pollutants	Benzo(a)anthracene	0.2	U	ug/L	0.2	0.8

Appendix C. Facility Summary, Effluent Limits, and Permit Violations Recorded on Discharge Monitoring Report

Hiawatha Condominuims WTTF– FL0043389 – March-2011

State of Florida
Department of Environmental Protection
Facility Introduction & Summary

PART I: Information gathered prior to sampling event	
Prepared By: **Courtney Gamble**	**Contact Number:** **904-256-1625**
Facility Name (as it appears on permit): **Hiawatha Condominiums WWTF**	**Current Name:** same
NPDES Permit Number: FL0043389	**Permit Expiration Date:** January 9, 2012
Physical Address: 116 Hiawatha Court East Palatka, FL 32131	
District: Northeast	**County:** Putnam
Function of Facility: Domestic wastewater treatment	
Facility Type: Domestic Wastewater Treatment Plant Publicly-owned treatment works Standard Industrial Classification Code: 4952	**Permitted Capacity (MGD):** 0.036 MGD
Mean Flow for previous 12 months for all EXTERNAL outfalls listed in permit (list date range including months): **Outfall D-001 – November 30, 2009 to November 30, 2010 –** **Annual average flow at the end of November 2010 = 0.023 MGD**	
If applicable, Mean Flow for previous 12 months for REUSE outfall(s) (list date range including months): **There is no separate reuse outfall at this facility**	
Description of type of Discharge: ☐ **Continuous** ☒ **Intermittent** ☐ **Seasonal** ☐ **Rainfall Dependent** ☐ **Other, please specify**	

Appendix C. (cont.)

Hiawatha Condominuims WTTF– FL0043389 – March-2011

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

EFA-1 – Effluent sampling point immediately after disinfection, but before dechlorination.
EFD-1 – Effluent sampling point immediately after dechlorination and prior to discharge to the St. Johns River.
CAL-1 – Calculated value based on difference between influent flow and total drainfield flow. Influent flows measure by lift station elapsed time meter (ETM) readings; total effluent discharges to drainfield measured by summation of inline flowmeter readings to each of 3 absorption fields.

Description of Permitted Outfall(s): excerpted from permit revision April 2008

Surface Water Discharge:

An existing 0.036 MGD annual average daily flow (AADF) permitted discharge to St. Johns River (Class III fresh waters) at discharge location (D-001) which is approximately 50 feet in length and discharges at a depth of approximately 4.6 feet. The point of discharge is located approximately at latitude 29 ° 38' 48" N, longitude 81 ° 36' 51" W.

Land Application:

None constructed yet.

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

WASTEWATER TREATMENT:

An advanced domestic wastewater treatment facility which uses the activated-sludge process to treat domestic wastewater. The facility has a design flow of 0.036 million gallons per day (MGD). The wastewater treatment facility includes an anoxic/aeration tank, anoxic zone, five aeration tanks, two clarifiers, three sand filters, three chlorine contact chambers and an aerobic digester. Liquid chlorine is used for disinfection. Sodium bisulfate is used for dechlorination. Treated effluent discharges to the Class III fresh waters of the St. Johns River at discharge location D-001, which is approximately 15.24meters (50 feet) in length at an approximate depth of 1.4 meters (4.6 feet). The point of discharges located approximately at latitude 29°38'29" N, and longitude 81°36'58" W.

Appendix C. (cont.)

Hiawatha Condominuims WTTF– FL0043389 – March-2011

1. **PART 1 – Continued: List current Effluent Limits of Outfall(s) to be Sampled: This should include any AO or CO limits the facility may be under.** During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge effluent from Outfall D-001 to St. Johns River. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with condition I.C.8:

			Effluent Limitations				Monitoring Requirements			
Parameter	Units	Max/Min	Annual Average	Monthly Average	Weekly Average	Single Sample	Monitoring Frequency	Sample Type	Monitoring Location Site Number	Notes
Flow to St. Johns River from Outfall D-001	MGD	Maximum	0.036	Report	-	-	5 Days/Week	Calculation	CAL-1	
BOD, Carbonaceous 5 day, 20C	MG/L	Maximum	5.0	6.25		10.0	Monthly	Grab	EFD-1	
Solids, Total Suspended	MG/L	Maximum	5.0	6.25		10.0	Monthly	Grab	EFD-1	
pH	SU	Range	-	-	-	6.0 to 8.5	5 Days/Week	Grab	EFD-1	
Coliform, Fecal	#/100ML	Maximum	See Permit Condition I.A.3.				Monthly	Grab	EFD-1	
Total Residual Chlorine (For Disinfection)	MG/L	Minimum	-	-	-	0.5	5 Days/Week	Grab	EFA-1	See Cond.I.A.5
Total Residual Chlorine (For Dechlorination)	MG/L	Maximum	-	-	-	0.01	Monthly	Grab	EFD-1	
Nitrogen, Total (as N)	MG/L	Maximum	3.0	3.75		6.0	Monthly	Grab	EFD-1	
Phosphorus, Total (as P)	MG/L	Maximum	1.0	1.25		2.0	Monthly	Grab	EFD-1	
Nitrogen, Ammonia, Total unionized (as N)	MG/L	Maximum	-	-	-	0.02	Monthly	Grab	EFD-1	
Oxygen, Dissolved (DO)	MG/L	Minimum	-	-	-	5.0	5 Days/Week	Grab	EFD-1	
Whole Effluent Toxicity	See Permit Condition I.A.6								-	

Appendix C. (cont.)

Hiawatha Condominuims WTTF– FL0043389 – March-2011

SPECIAL CONDITIONS REFERENCED ABOVE:

I.A.3 Flow meter shall be utilized to measure flow and calibrated at least annually. *[62-601.200(17) and .500(6)]*

I.A.5 A minimum of 0.5 mg/L total residual chlorine must be maintained for a minimum contact time of 15 minutes based on peak hourly flow. *[62-600.440(4)(b)]*

I.A.6 Based upon Best Professional Judgment toxicity testing is not required for this discharge. The Department reserves the right to require whole effluent toxicity testing. *[62-4, 62-302]*

I.C.6 The sample collection, analytical test methods and method detection limits (MDLs) applicable to this permit shall be in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate. The list of Department established analytical methods, and corresponding MDLs (method detection limits) and PQLs (practical quantitation limits), which is titled "Florida Department of Environmental Protection Table as Required By Rule 62-4.246(4) Testing Methods for Discharges to Surface Water" is available at http://www.dep.state.fl.us/labs/guidance/index.htm. The MDLs and PQLs as described in this list shall constitute the minimum acceptable MDL/PQL values and the Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those described above unless alternate MDLs and/or PQLs have been specifically approved by the Department for this permit. Any method included in the list may be used for reporting as long as it meets the following requirements:

- **a) The laboratory's reported MDL and PQL values for the particular method must be equal or less than the corresponding method values specified in the Department's approved MDL and PQL list;**
- **b) The laboratory reported MDL for the specific parameter is less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Parameters that are listed as "report only" in the permit shall use methods that provide a MDL, which is equal to or less than the applicable water quality criteria stated in 62-302, F.A.C.; and**
- **c) If the MDLs for all methods available in the approved list are above the stated permit limit or applicable water quality criteria for that parameter, then the method with the lowest stated MDL shall be used.**

Where necessary, the permittee may request approval of alternate methods or for alternative MDLs or PQLs for any approved analytical method. Approval of alternate laboratory MDLs or PQLs are not necessary if the laboratory reported MDLs and PQLs are less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Approval of an analytical method not included in the above-referenced list is not necessary if the analytical method is in accordance with 40 CFR 136. *[62-4.246, 62-160]*

Appendix C. (cont.)

Hiawatha Condominuims WTTF– FL0043389 – March-2011

PART I: Continued

Receiving Waters:	**Classification (indicate whether fresh or marine):**
the Lower St. Johns River (LSJR)	Class III fresh waters

Toxicity Test Requirements (routine and/or additional test language, test species, salinity adjustment, etc.):
Based upon Best Professional Judgment toxicity testing is not required for this discharge.

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

This permit is not accompanied by an AO or CO

Facility Mixing Zone Details (if applicable):

List Permit Violations (DMR data) and plant upsets that occurred at the plant within the last year: @D-001
For November 1, 2009 to November 30, 2010

Monitoring Date	Parameter Description	Data	Limit	Statistical Base	Units
3/31/2010	SOLIDS, TOTAL SUSPENDED	6.29	6.25	MO AVG	MG/L
3/31/2010	SOLIDS, TOTAL SUSPENDED	6.29	10	MAXIMUM	MG/L
3/31/2010	NITROGEN, TOTAL	10	3.75	MO AVG	MG/L
3/31/2010	NITROGEN, TOTAL	10	6	MAXIMUM	MG/L
4/30/2010	NITROGEN, TOTAL	12.5	3.75	MO AVG	MG/L
4/30/2010	NITROGEN, TOTAL	12.5	6	MAXIMUM	MG/L
4/30/2010	PHOSPHORUS, TOTAL (AS P)	1.54	1.25	MO AVG	MG/L
4/30/2010	PHOSPHORUS, TOTAL (AS P)	1.54	2	MAXIMUM	MG/L
6/30/2010	SOLIDS, TOTAL SUSPENDED	6.75	6.25	MO AVG	MG/L
6/30/2010	SOLIDS, TOTAL SUSPENDED	6.75	10	MAXIMUM	MG/L
6/30/2010	NITROGEN, TOTAL	8.56	3.75	MO AVG	MG/L
6/30/2010	NITROGEN, TOTAL	8.56	6	MAXIMUM	MG/L
6/30/2010	NITROGEN, TOTAL	3.39	3	ANNL AVG	MG/L
7/31/2010	NITROGEN, TOTAL	4.47	3.75	MO AVG	MG/L
8/31/2010	NITROGEN, TOTAL	3.9	3	ANNL AVG	MG/L
9/30/2010	NITROGEN, TOTAL	4.01	3	ANNL AVG	MG/L
10/31/2010	NITROGEN, TOTAL	4.08	3	ANNL AVG	MG/L
11/30/2010	NITROGEN, TOTAL	4.07	3	ANNL AVG	MG/L

Appendix C. (cont.)

Hiawatha Condominuims WTTF– FL0043389 – March-2011

Describe previous FYI and WQBEL study:

Water Quality Base Effluent Limitations (WQBEL): Facility is a part of LSJR TMDL for nutrients.

Effluent limitations are based on a Level I WQBEL developed by District staff and based on a review of the water quality data for the receiving river (St. Johns); revisions to the effluent limitations from the previous permit are not necessary. In accordance with a Putnam County Resolution, this facility is required to meet AWT limitations for the discharge to the St. Johns River ($CBOD_5$ = 5 mg/L, TSS = 5 mg/L, TN = 3 mg/L and TP = 1mg/L).

Previous Third Year Inpsection : February 2006

The effluent sample collected from the EFD-1 sampling site for Outfall D-001 for this facility on December 5, 2005, was not acutely toxic to either test species during the acute screen 48-hour Bioassays. The effluent AGP result was less than the "problem" threshold for fresh receiving Waters. The effluent specific conductance exceeded the freshwater quality criterion.

Describe previous or current Enforcement Actions (including WLs):
Warning Letter No. WL-10-045-DW was issued on 6/2/2010 for effluent exceedances.
Warning Letter No. WL03-0051-DW-54-NED issued 12/12/2003 for not responding to non-compliance letters and not meeting compliance schedule

Describe any violations or problems noted in previous inspection:
2.1 Observation: A Certificate of Completion of Construction was not submitted to the Department prior to placing the facility into service. Form 13 (Availability of Record Drawings) also needs to be submitted to the Department.
2.2 Observation: The facility failed to meet the schedule in the permit/order. The rapid rate land application system has not been constructed.
5.4 Observation: General – The operations and maintenance manual was not available during the inspection.
5.5 Observation: General – During the inspection it was observed that calibrations of the chlorine meter were not being thoroughly documented. Zero readings were not included in the calibration log.
5.6 Observation: General – During the inspection discharge monitoring reports, lab sheets, and chain of custody sheets were not available.
5.7 Observation: General – An application for a permit modification is needed to include the following:

- To take out the equalization basin in the facility description in the permit.
- To change the flow monitoring location from effluent to influent.
- To take out the discharge location of R-001 as a possible disposal site.
- Take out the groundwater requirements in the permit.

6.9 Observation: *Aeration Basins/Act. Sludge* – Some of the aeration basins were not providing adequate mixing. Several dead spots were observed in the basins.
6.17 Observation: *Clarifiers* - The clarifier weirs are not level.
6.20 Observation: *Filtration* – The backwash well had a buildup of sand in it. Because of this it has been determined that additional media needs to be added to the filtration system.
6.21 Observation: *Disinfection* - The chlorine contact chamber was not providing a minimum contact time of 15 minutes.
6.25 Observation: Anoxic Basins - During the inspection it was observed that the anoxic basins were receiving air when the blowers were running.
10.5 Observation: General – The permit states that 78% of the effluent should be going to surface water and 22% should be going to the rapid rate absorption field. During the inspection it was noted that the absorption field will not be constructed. Thus the flow percentages are not being met in the permit.
11.1 Observation: Sludge hauling manifests were not available for review during the inspection.

Appendix C. (cont.)

Hiawatha Condominuims WTTF– FL0043389 – March-2011

Discuss whether DMR trends within previous five years are improving or declining: Within the past year nitrogen issues have become more prevalent. Monthly flow has been around 0.023MGD for years.
Additional Comments (this should include a trend of the Effluent, i.e. if the facility is now Reuse): Facility had permitted to encompass a contruction at the plant including 3 absorption fields that would increase the permitted capacity. Construction has not begun and currently there are no plans to begin construction.

Appendix C. (cont.)

Hiawatha Condominuims WTTF– FL0043389 – March-2011

PART II: Sampling Event Information	
Date(s) sample collected: 4/11/2011 (planned)	Sampler(s): Eesa Ali, Sharon Piltz
Temperature (Deg C):	pH (SU):
Dissolved Oxygen (mg/L):	Conductivity (umhos/cm):
Total Residual Chlorine (mg/L):	Total Residual Chlorine - after Disinfection (mg/L):
Method of Chlorination:	Method of De-chlorination:
Flow During Sample Collection for each outfall(MGD): (D-001 only)	
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: (Note – discharges through diffuser in ICW). Describe appearance of final effluent on day of sampling ---_____	

Appendix D. EPA End Sheet

The Bioassay of the Hiawatha Condominiums WWTF Plant effluent sampled on April 11, 2011. NPDES# FL0043389.

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 F L 0 0 4 3 3 8 9 11	12 1 1 0 4 1 1	18 **B**	19 **S**	20 1

Remarks

B i o a s s a y s n o t r u n p H a n d D O i s s u e s

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The Priority Pollutants Analysis of the Hiawatha Condominiums WWTF Plant effluent sampled on April 11, 2011. NPDES# FL0043389.

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 F L 0 0 4 3 3 8 9 11	12 1 1 0 4 1 1	18 **B**	19 **S**	20 1

Remarks

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Biological Analyses of the Hiawatha Condominiums WWTF Plant effluent sampled on April 11, 2011. NPDES# FL0043389.

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 F L 0 0 4 3 3 8 9 11	12 1 1 0 4 1 1	18 **B**	19 **S**	20 1

Remarks

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