



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

June 2016

PAGE 1 OF 1

Data Qualified?

Yes / No

STORET Station Name: Alligator Creek

Date: 10/20/16

(mm/dd/yyyy)

STORET Station ID: G1TLH0017

WBID: 3325

Latitude:

(Decimal Degrees)

County: Alachua RQ - 2016-10-17-70

ORG ID: 8034

Longitude:

(Decimal Degrees)

Receiving Body of Water: Alachua River

Field ID: G1TLH0017

Sampling Team Members

WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
X	X	X	X	X

Sampling Equipment

- ☒ Sample Container ☐ Van Dorn ☐ Pole
☐ Carboy ☒ Syringe
☐ Dipper ☐ Other

Equipment ID

Collection Method

- ☒ Wading ☐ From Shore ☐ Other (note below)
☐ Via Boat ☐ Canoe/Kayak ☐ Electric Motor ☐ Gasoline Motor

Water Level: Dry / Low / Normal / High / Flooded

Meter ID# 600XLIN #9

Photos: Yes / No

Matrix: Fresh / Marine / DI

Tide Falling: Yes / No / NA

Time Zone	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (ppt)	Secchi Disk (m)	Sp COND (µmhos/cm)	Temp. (C°)
EST	1350	<u>0.2</u> <u>0.1</u>	<u>0.2</u>	<u>7.6</u>	<u>87</u>	<u>5.6</u>	<u>0.05</u>	<u>0.25</u>	<u>109</u>	<u>20.4</u>
CEN	<u>5</u>									

Biological Samples Collected: None HA SCI SVS RPS LVI Other

Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H2SO4	<u>SA6209120</u>	<u>7/17</u>	☒ <2
Metals	☐ W-ICPMS ☒ W-ICP	☒ Ice ☒ HNO3			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice			
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☐ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☒ MI-FW-QLDC	☒ Formalin			
Microbiology	☐ E Coli ☐ F Coli ☐ Enter ☐ QPCR	☐ Ice			
Periphyton	☐ ALGAE-ID	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other			

Place Preservative Sticker(s) Here
(If Available)

Notes:

SCI @ 1410

Place Label Here
(If Available)

Signature: [Signature]

Date: 10/20/16

Field Parameters Entered into LIMS: 11/10/16
(Initials/Date)

Field Parameters QC in LIMS: 11/10/16
(Initials/Date)

Date Migrated to STORET: 11/10/16
(Initials/Date)

Field Sheets Scanned/Saved: 11/10/16
(Initials/Date)

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

SAMPLING AGENCY: <u>8034</u>		STORET STATION NUMBER: <u>G1TLHR0017</u>	DATE (MM/DD/YY): <u>10/20/16</u>	RECEIVING BODY OF WATER: <u>Alapaha River</u>
REMARKS:	COUNTY: <u>Hamilton</u>	LOCATION: <u>G1TLHR0017</u>	FIELD ID/NAME: <u>Alligator Creek</u>	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock]	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags)	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered
Substrate Diversity <u>10</u>	20 19 18 17 16	15 14 13 12 11	<u>10</u> 9 8 7 6	5 4 3 2 1
Substrate Availability <u>20</u>	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 <u>13</u>	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 <u>20</u> ----- Primary Score <u>63</u>	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	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks.	Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered.	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area.	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks.
Artificial Channelization <u>20</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability Right Bank <u>5</u> Left Bank <u>5</u>	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull 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 <u>10</u> Left Bank <u>5</u>	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 <u>10</u> Left Bank <u>5</u> ----- Secondary Score <u>60</u>	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

123

TOTAL SCORE

Date: <u>10/20/16</u>	Analyst: <u>J Woods/Blair</u>	Signature: <u>[Signature]</u>
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DEP Form FD 9000-3 Physical/Chemical Characterization Field Sheet

SAMPLE ID G/TLHR0017 ORG ID 8034 LATITUDE _____
 COUNTY Hamilton STORET # G/TLHR0017 LONGITUDE _____
 DATE 10/20/16 TIME 1350 SAMPLING AGENCY 8034
 SITE NAME Alligator Creek
 FIELD ID/NAME G/TLHR0017 RECEIVING BODY OF WATER Alapaha River

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>60</u> Silviculture <u>15</u> Field/Pasture <u>10</u> Agricultural <u>15</u> Residential <u>15</u> Commercial <u>15</u> Industry <u>15</u> Other (Specify) <u>15</u>							Landscape Development Intensity Index (LDI) <u>15</u>
Local Watershed Erosion (select one): ☒ None ☐ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution: ☒ No evidence ☐ Slight ☐ Moderate ☐ Heavy							Typical Width (m) Depth (m)/Velocity (m/sec) Transect <u>2</u> m wide <u>0.17</u> m/s <u>0.17</u> m/s <u>0.17</u> m/s <u>0.1</u> m deep <u>0.2</u> m deep <u>0.1</u> m deep
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>6-12</u> Right Bank: <u>>16</u>				Hydrologic Modification Score (per FT 3101) <u>15</u>			
High Water Mark: <u>0.3</u> + <u>0.2</u> = <u>0.5</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No			
Artificially ☒ No ☐ Mostly recovered, more sinuous Channelized: ☐ Some recovery ☐ 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 Sand Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐ Silt Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐ Algae Smothering: None ☒ Slight ☐ Moderate ☐ Severe ☐
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SUBSTRATE TYPE

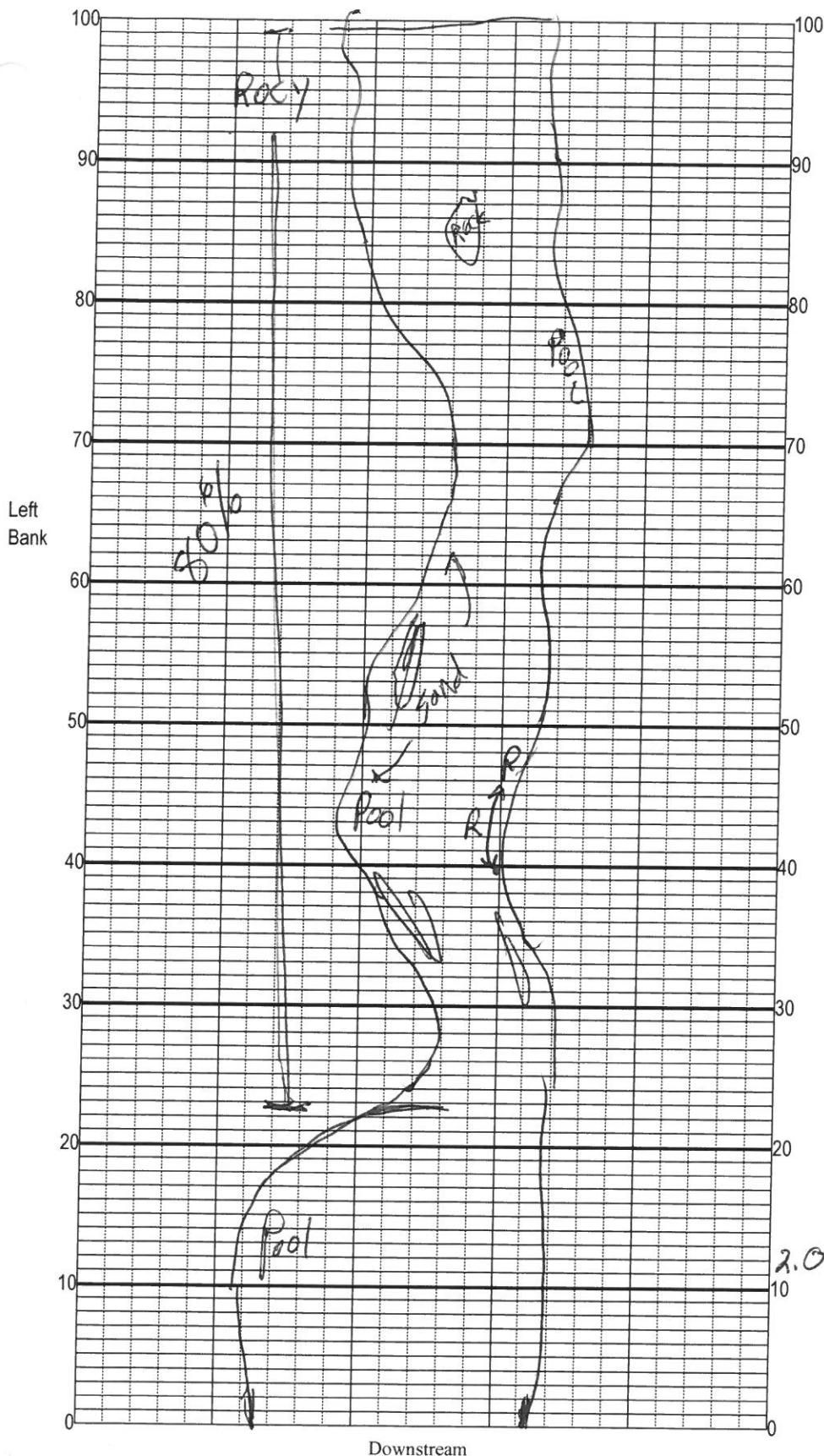
Assessment Tool: ☒ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon				WATER QUALITY							
% Coverage Woody Debris (Snags) <u>1</u> Undercut Banks / Roots <u>7</u> Leaf Packs or Mat <u>19</u> Aquatic Vegetation <u>6</u> Rock or Shell Rubble <u>19</u> Sand <u>6</u> Mud / Muck / Silt <u>19</u> Other <u>6</u> Other <u>6</u>				Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M) Top: <u>0.1</u> <u>20.4</u> <u>5.6</u> <u>7.6</u> <u>87</u> <u>109</u> <u>0.05</u> <u>0.2</u> Mid: <u>1</u> <u>7</u> <u>19</u> <u>6</u> <u>19</u> <u>6</u> <u>19</u> <u>6</u> Bottom: <u>1</u> <u>7</u> <u>19</u> <u>6</u> <u>19</u> <u>6</u> <u>19</u> <u>6</u> Meter ID: <u>600XLM #9</u>							
Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐				Water Surface Oils Normal ☐ Sheen ☒ Globbs ☐ Slick ☐ Other ☐				Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) ☐			
Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>SL6209120</u> Exp: _____				Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ Exp: _____				Clarity Clear ☐ Slightly Turbid ☒ Turbid ☐ Opaque ☐			

ABUNDANCE Periphyton: ☐ Not Obs. ☒ Rare ☐ Common ☐ Abundant Fish: ☐ Not Obs. ☒ Rare ☐ Common ☐ Abundant Aquatic Plants: ☐ Not Obs. ☒ Rare ☐ Common ☐ Abundant Iron/Sulfur Bacteria: ☒ Not Obs. ☐ Rare ☐ Common ☐ Abundant
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System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐ _____
AMBIENT FIELD CONDITIONS / NOTES: ☒ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM <u>Blair / Woods</u>	SIGNATURE: <u>[Signature]</u>	DATE: <u>10/20/16</u>
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



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

Location: GILCHR0017

Date: 10/20/16

Sampler: WOODS/Blair

100 m: Latitude _____
Longitude _____

0 m: Latitude _____
Longitude _____

Substrates: Code key, draw proportionate habitat abundance. %

S Snags _____

R Roots/undercut banks 1.0 2.0

L Leaf Packs (or mats) _____

A Aquatic Macrophytes _____

K Rock 30

_____ Pools total # observed = _____
range expected = _____

Average width 2 m

Average depth 0.2 m

Velocity measured at 50 meter mark.

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:

2.0 R

0.17 m/s

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>GILTHROO17</u>					County: <u>Hamilton</u>		Date: <u>10/20/16</u>		Investigators: <u>Blair/Woods</u>													
Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	STORET Station Number: <u>GILTHROO17</u>												
0	1	N			60	1	N			Secchi depth <u>0.2</u> Estimated? <u>N</u> # points ranked 4-6 <u>0</u> total points assessed <u>0</u> % points ranked 4-6 <u>0</u>												
	2					2																
	3					3																
	4					4																
	5			46		5			96													
	6					6																
	7					7																
	8					8																
	9					9																
10	1	N			70	1	N			Check accompanying data collected at same site/date. Algal mat sample ☐ Linear Veg Survey ☐ Habitat Assessment ☒ SCI/Biorecon ☒ Water sample ☒ RQ- <u>2016-10-17-70</u>												
	2					2																
	3					3																
	4					4																
	5			96		5			96													
	6					6																
	7					7																
	8					8																
	9					9																
20	1	N			80	1	N			<table border="1"> <thead> <tr> <th colspan="2">Algal Thickness Rank</th> </tr> </thead> <tbody> <tr> <td>N</td> <td>rough, no algae, slimy, algae up to 1mm</td> </tr> <tr> <td>3</td> <td>>1mm - 6mm</td> </tr> <tr> <td>4</td> <td>>6mm - 20mm</td> </tr> <tr> <td>5</td> <td>>20mm - 10 cm</td> </tr> <tr> <td>6</td> <td>>10 cm</td> </tr> </tbody> </table>	Algal Thickness Rank		N	rough, no algae, slimy, algae up to 1mm	3	>1mm - 6mm	4	>6mm - 20mm	5	>20mm - 10 cm	6	>10 cm
	Algal Thickness Rank																					
	N	rough, no algae, slimy, algae up to 1mm																				
	3	>1mm - 6mm																				
	4	>6mm - 20mm																				
	5	>20mm - 10 cm																				
	6	>10 cm																				
	2					2																
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4				4																		
5			96	5			96															
6				6																		
7				7																		
8				8																		
9				9																		
30	1	N			90	1	N															
	2					2																
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	5			96		5			50													
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	9					9																
40	1	N			100	1	N															
	2					2																
	3					3																
	4					4																
	5			96		5			36													
	6					6																
	7					7																
	8					8																
	9					9																
50	1	N				1	N			Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached. Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank. Record canopy cover as the number of small densiometer quadrants (out of 96) that HAVE canopy cover. Measure facing upstream at point 4, 5, or 6. Collect algal mat sample following DEP SOP FS 7240 if the percentage of total sampled points with a thickness rank of 4, 5, or 6 is >20%.												
	2					2																
	3					3																
	4					4																
	5			94		5																
	6					6																
	7					7																
	8					8																
	9					9																

Waterbody: GILCHR0017	Date: 10/20/11	County: Hamilton	Storet Number: GILCHR0017
Analyst: Jon Woods	Signature: [Signature]		
Comments: 42 m ²			

[illegible]