



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

February 2016

PAGE ____ OF ____

Data Qualified?
Yes / No

STORET Station Name: Bevins (Boggy) Creek @ SR51 Date: 2-25-2016
(mm/dd/yyyy)

STORET Station ID: 3603-A G1TLHR0005 Latitude: 29.733279
(Decimal Degrees)

WBID: 3603 RQ - 2016-02-15-60 ORG ID: 21FLTLHR Longitude: 83.359083
(Decimal Degrees)

Receiving Body of Water: Steinhatchee River Field ID: 3603-A County: Talbot

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Duplicate Collection	Blank Collection	Sampling Equipment		
Chris Green		X	X	X	X	X			☒ Sample Container	☐ Van Dorn	☐ Pole
Colby Marshall									☐ 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 / <u>Normal</u> / High / Flooded									Matrix: <u>Fresh</u> / Marine / DI		
Meter ID# <u>12 YSI 600 XLM</u>									Photos: <u>Yes</u> / No		
									Tide Falling: Yes / No / <u>NA</u>		

Field Sample

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	15:10	<u>0.4</u> <u>0.2</u>	0.4	8.6	87	7.5	NA	0.4(s)	258	16.9
CEN										

Biological Samples Collected:		None	<u>HA</u>	<u>SCI</u>	<u>LVS</u>	<u>RPS</u>	LVI	Other
Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check			
Preserved Nutrients	☒ TKN / TP / Nox / NH3 / TOC ☐ Other	☒ Ice ☒ H2SO4	<u>SA-5259020</u>	<u>9/16</u>	☒ <2			
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO2			☐ <2			
Filtered Nutrients	☒ oP ☒ Field Filtered 0.45 µm Filter	☒ Ice						
Chlorophyll	☒ CHLSUITE-W	☒ Ice						
BOD	☐ BOD-INHB ☒ BOD-UNIN	☒ Ice						
Physical/Aggregate	☒ TSS / Turbidity / Alkalinity / Color ☐ Other	☒ Ice						
Macroinvertebrates	☒ MI-FW-QLDC	☒ Formalin						
Microbiology	☐ E Coli ☐ F Coli ☐ Entero ☐ 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						

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: G1TLHR0005 County: Taylor Date: 2-25-16 Investigators: Chris Green

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
0	1	N			60	1	N		
	2	N				2	N		
	3	N				3	N		
	4	N				4	N		
	5	N		84		5	N		87
	6	N				6	3		
	7	N				7	3		
	8	N				8	N		
	9	N				9	N		
10	1	3			70	1	N		
	2	N				2	N		
	3	N				3	N		
	4	N				4	N		
	5	N		182		5	N		88
	6	N		84		6	N		
	7	N				7	N		
	8	N				8	N		
	9	N				9	N		
20	1	5			80	1	5		
	2	N				2	5		
	3	N				3	N		
	4	N				4	N		
	5	N		44		5	N		83
	6	N				6	N		
	7	N				7	N		
	8	N				8	3		
	9	N				9	3		
30	1	6			90	1	N		
	2	5				2	N		
	3	3				3	N		
	4	N				4	N		
	5	N		93		5	N		81
	6	3				6	N		
	7	N				7	N		
	8	3				8	N		
	9	4				9	3		
40	1	4			100	1	N		
	2	N				2	4		
	3	N				3	N		
	4	N				4	N		
	5	N		88		5	N		62
	6	3				6	N		
	7	3				7	N		
	8	N				8	N		
	9	5				9	N		
50	1	4							
	2	N							
	3	N							
	4	N							
	5	N		92					
	6	N							
	7	N							
	8	N							
	9	N							

STORET Station Number:

Secchi depth
Estimated?

points ranked 4-6
total points assessed
% points ranked 4-6

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

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

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

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

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

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

Sampler: Chris Green

100 m: Latitude _____	Longitude _____
0 m: Latitude _____	Longitude _____
Substrates: Code key, draw proportionate habitat abundance. %	
☒ S	Snags 1.6
☒ U	Roots/undercut banks 0.2
☒ L	Leaf Packs (or mats) 3.9
☒ A	Aquatic Macrophytes 0
☒ R	rock 1.3
☐	_____
☒ Pools	total # observed = 4 # range expected = 1
Average width <u>8</u> m	
Average depth <u>0.4</u> m	
Velocity measured at <u>50</u> meter mark. 4 se	
WQ & chemistry taken at <u>50</u> meter mark.	
Habitat Smothering: moderate	
Note areas (on map) where sand or silt is smothering substrates, limiting habitability.	
Bank Stability: good + 1	
Note areas (on map) with unstable, eroding banks.	
Riparian Buffer Width: > 18m	
Note areas (on map) where natural vegetation is altered or eliminated.	

Plants observed / other notes:

S-13
L-31
R-10
U-1.5

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

SAMPLE ID _____ ORG ID 21FLTLHR LATITUDE 29.733279
 COUNTY Talbot STORET # 61TLHR0005 LONGITUDE 83.359083
 DATE 2-25-16 TIME 15:30 SAMPLING AGENCY 8034
 SITE NAME Boggy Creek @ SR51
 FIELD ID/NAME 61TLHR0005 RECEIVING BODY OF WATER Steinhatchee River

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>430</u> Silviculture <u>50</u> Field/Pasture <u>60</u> Agricultural <u>10</u> Residential <u>10</u> Commercial <u>10</u> Industry <u>10</u> Other (Specify) <u>10</u>							Landscape Development Intensity Index (LDI) _____
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 _____ m wide <u>8</u> m wide			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>718m</u> Right Bank: <u>718m</u>				Hydrologic Modification Score (per FT 3101) _____			
High Water Mark: <u>0.5</u> + <u>0.4</u> = <u>0.9</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 ☐																																									
SUBSTRATE TYPE Assessment Tool: ☒ SCI ☐ RPS ☐ LVS ☐ LCI ☐ BioRecon			WATER QUALITY Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M) Top: <u>0.2</u> <u>16.9</u> <u>7.5</u> <u>8.6</u> <u>87</u> <u>258</u> _____ <u>0.4</u> Mid: _____ _____ _____ _____ _____ _____ ☒ VOB Bottom: _____ _____ _____ _____ _____ _____ _____ Meter ID: <u>12 YSI 600 XLM</u> TOTAL DEPTH <u>0.4</u>																																										
<table border="1"> <thead> <tr> <th></th> <th>% Coverage</th> <th>INVERT # Times Sampled</th> <th>PERI # Times Sampled</th> </tr> </thead> <tbody> <tr> <td>Woody Debris (Snags)</td> <td><u>1.6</u></td> <td><u>5</u></td> <td></td> </tr> <tr> <td>Undercut Banks / Roots</td> <td><u>0.2</u></td> <td><u>0</u></td> <td></td> </tr> <tr> <td>Leaf Packs or Mat</td> <td><u>3.9</u></td> <td><u>5</u></td> <td></td> </tr> <tr> <td>Aquatic Vegetation</td> <td><u>0</u></td> <td></td> <td></td> </tr> <tr> <td>Rock or Shell Rubble</td> <td><u>1.3</u></td> <td><u>5</u></td> <td></td> </tr> <tr> <td>Sand</td> <td><u>70</u></td> <td><u>5</u></td> <td></td> </tr> <tr> <td>Mud / Muck / Silt</td> <td><u>23</u></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				% Coverage	INVERT # Times Sampled	PERI # Times Sampled	Woody Debris (Snags)	<u>1.6</u>	<u>5</u>		Undercut Banks / Roots	<u>0.2</u>	<u>0</u>		Leaf Packs or Mat	<u>3.9</u>	<u>5</u>		Aquatic Vegetation	<u>0</u>			Rock or Shell Rubble	<u>1.3</u>	<u>5</u>		Sand	<u>70</u>	<u>5</u>		Mud / Muck / Silt	<u>23</u>			Other				Other				Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: _____ Exp: _____ Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☒ No Lot Number: _____ Exp: _____		
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ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☐ ☐ ☒ ☐ Fish: ☐ ☐ ☒ ☐ Aquatic Plants: ☐ ☒ ☐ ☐ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐			Water Surface Oils Normal ☒ Sheen ☐ Globs ☐ Slick ☐ Other ☐ Color Tannic ☒ Green (Algae) ☐ Clear ☒ Other (Specify) ☐ <u>CU</u> Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐																																										
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 Chris Green / Colby Marshall SIGNATURE: ChS DATE: 2-25-16

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

SAMPLING AGENCY: <u>8034 DEP-08</u>		STORET STATION NUMBER: <u>G1TLHR0005</u>	DATE (MMDD/YY): <u>2-25-16</u>	RECEIVING BODY OF WATER: <u>Steinhatchee River</u>
REMARKS:	COUNTY: <u>Taylor</u>	LOCATION: <u>Boggy Creek @ SR51</u>	FIELD ID/NAME: <u>G1TLHR0005</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>13</u> <u>14cc</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>7</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>16</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>14</u> ----- Primary Score <u>50</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	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.	Only meets 2 of the 3 requirements for optimal bank stability.	Only meets 1 of the 3 requirements for optimal bank stability.	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas.
Right Bank <u>9</u> Left Bank <u>9</u>	10 9	8 7 6	5 4	3 2 1
Riparian Buffer Zone Width	Width of vegetation greater than 18 m	Width of vegetation >12 to 18m	Width of vegetation 6 to 12 m. human activities close to system	Less than 6 m of buffer zone due to intensive human activities
Right Bank <u>10</u> Left Bank <u>10</u>	10 9	8 7 6	5 4	3 2 1
Riparian Zone Vegetation Quality	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.	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed.	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious.	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions).
Right Bank <u>10</u> Left Bank <u>10</u> ----- Secondary Score <u>78</u>	10 9	8 7 6	5 4	3 2 1

128 **TOTAL SCORE**

Date: <u>2-25-16</u>	Analyst: <u>Chris Green</u>	Signature: <u>Ch. Green</u>
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DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Comments:

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m² of taxa present). Note in the boxes below if no dominant are selected, and note total macrophyte abundance rank for each section. Only the most common taxa are listed, so use blank spaces for additional taxa names.

spaces for additional taxa names.																					
HERBACEOUS SPECIES	Meter Mark									Specimen collected (check)	HERBACEOUS SPECIES	Meter Mark									Specimen collected (check)
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90			90-100	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	
Alternanthera philoxeroides											Micranthemum glomeratum										
Bacopa caroliniana											Micranthemum umbrosum										
Bacopa monnieri											Myriophyllum aquaticum										
Bidens mitis											Najas guadelupensis										
Boehmeria cylindrica											Nuphar luteum										
Centella asiatica											Orontium aquaticum										
Ceratophyllum demersum											Panicum hemitomon										
Chara											Panicum repens										
Cicuta maculata											Panicum rigidulum										
Cladium jamaicense											Pistia stratioides										
Colocasia esculenta											Polygonum glabra										
Commelina diffusa											Polygonum hydropiperoides										
Commelina virginica											Polygonum punctatum										
Crinum americanum											Pontedaria cordata										
Diodia virginiana											Potamogeton illinoensis										
Eichhornia crassipes											Ruellia simplex										
Eleocharis (wispy viviparous)											Sacciolepis striata										
Hydrilla verticillata											Sagittaria kurziana										
Hydrocotyle	X		X	X	X	X	X		X	X	Sagittaria lancifolia										
Hygrophila polysperma											Sagittaria latifolia										
Hymenocallis											Salvinia minima										
Lachnanthes caroliniana											Samolus parviflora										
Landoltia punctata											Saururus cernuus										
Lemna											Sparganium americanum										
Limnophila sessiflora											Typha										
Ludwigia leptocarpa											Vallisneria americana										
Ludwigia palustris											Zizania aquatica										
Ludwigia peruviana																					
Ludwigia repens																					
Luziola fluitans																					
If no Dominant or Co-Dominant were selected, indicate with "X"																					
Indicate % cover macrophytes per section																					
0-5% Macrophyte Coverage	X																				