



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name: Arbuckle Branch

Date: 10/14/2019

(mm/dd/yyyy)

WIN/ Field ID: G4SD0172

WBID: 1761C

Latitude: 27.48932972

(Decimal Degrees)

County: Highlands

ORG ID: 21FLFTM

Longitude: -81.30713352

(Decimal Degrees)

Receiving Body of Water: Lake Istokpoga

RQ- 2019-07-29-74

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Nicole Reistad									
Gary Snorek									
Chase Conley									

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☒ Syringe	
☐ Dipper	☐ Other	
Depth Measured with <u>Secchi disk</u>		
Equipment ID <u>33125</u>		

Collection Method		
☒ Wading	☐ Canoe/Kayak	
☐ From Shore	☐ Electric Motor	
☐ Other	☐ Gasoline Motor	

Water Level: Dry / Pooled / Low / Normal / High / Flooded
Photos: Yes / No
Flow: No Flow / Intestinal / Flowing / NA
Meter ID# SNEK
Matrix: Fresh / Marine / DI
Tide: Rising / Falling / Slack / NA
Tide Times: High / Low

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPTH)	Sp COND (µmhos/cm)	Temp. (C°)
EST	1110	0.1	0.05	0.1	7.50	93.5	5.78	0.11	232.2	26.5
CEN				(S)						

Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other:

SBIO ID Numbers: SBIO-ID: 80584 HA-ID: 16465 RPS-ID: 9521 Macrophyte-ID: NA <2m UMS#:

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H2SO4	<u>SA7143030</u>	<u>10/30/19</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-CH-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC	☐ Formalin			
Periphyton	☐ ALGAE-ID	☐ Ice			
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci	☐ Ice			
Molecular	☐ PCR-FILTER ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-HF183 ☐ PCR-DG3 ☐ PCR-GFD	☐ Ice			
Tracers	☐ W-E8321-DI ☐ W-E8321-MS	☐ Ice			
Pesticides	☒ W-PSNP-TQ ☒ W-CT-CL-R ☒ W-E8321-DI ☒ W-PCL-SQ-R ☒ W-E8321-MS ☒ W-CARB-AA	☒ Ice			
Phytoplankton	☐ DTY-QN-C ☐ PKD-QN-C	☐ Ice			

Notes:

Field ID/WIN ID: G4SD0172

Location: Arbuckle Branch

Signature: [Signature] Date: 10/14/2019

LIMS EVENT ID: SO-DIST-2019-10-15-01 WIN Import ID: MC 12/6/19

Enter Field Parameters, Verify Station ID In LIMS DMT: 12/26/19 QC Station ID, Field Parameters In LIMS DMT: 12/26/19

Scan/Save Field Sheets: 12/26/19 Migrate Data to WIN: 12/26/19 Verify Data In WIN: 12/26/19

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

Location

Arbuckle Branch

Date:

10/14/2019

Sampler:

Nicole Reistad

100 m: Latitude 27.4903703

Longitude -81.3077931

0 m: Latitude 27.4895280

Longitude -81.3072969

Substrates: Code key, draw proportionate habitat abundance.

☒	Snags	0.3
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☒	Roots/undercut banks	1.3
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☒	Leaf Packs (or mats)	0
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☒	Aquatic Macrophytes	0.2
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☒	Rocks	0
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☐		
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☒	Pools	total # observed = 2 # range expected = 4-8
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Average width 2 m

Average depth 0.1 m

Velocity measured at 0 meter mark.

WQ & chemistry taken at 0 meter mark.

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

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

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

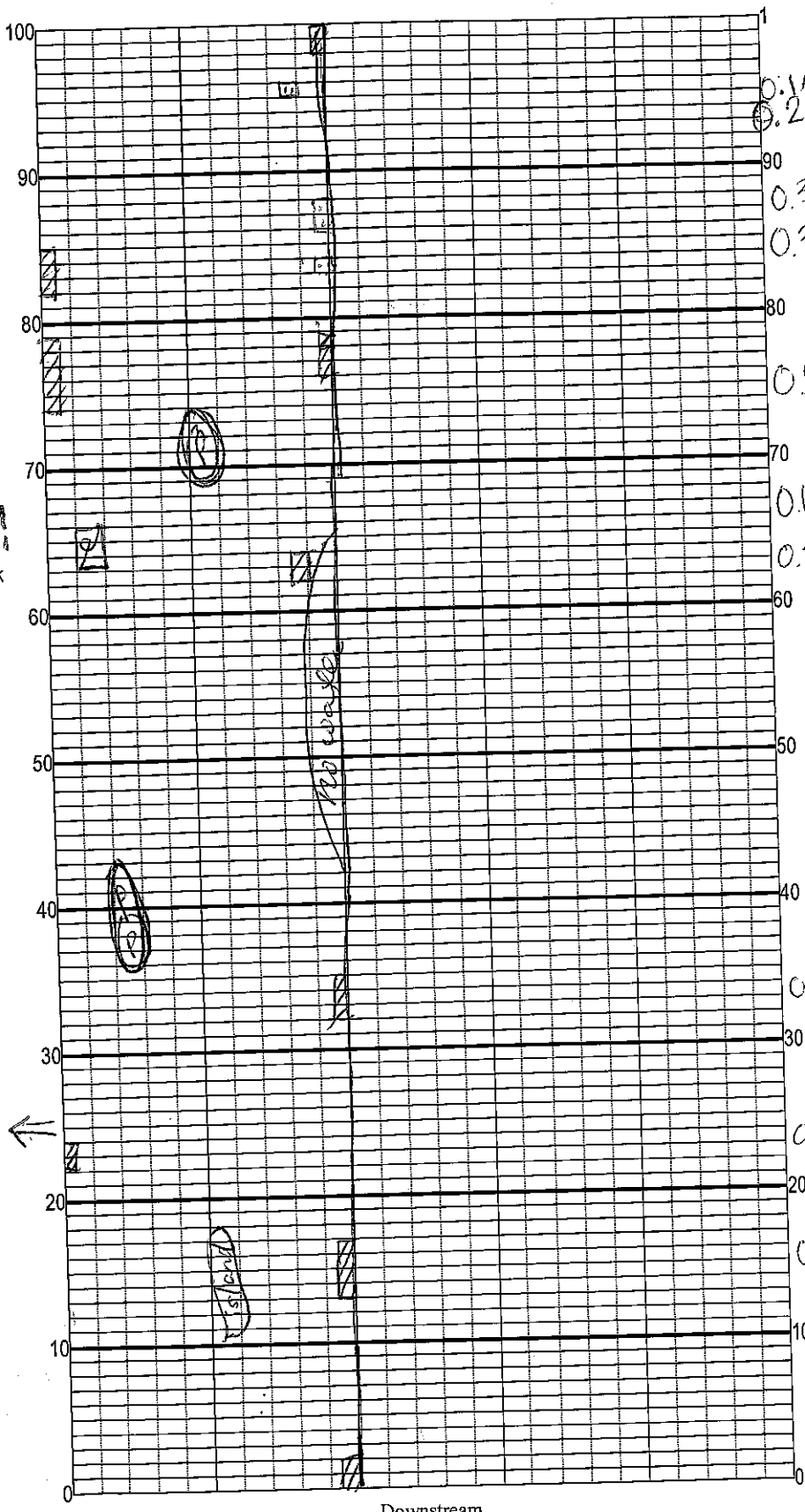
Plants observed / other notes:

0.4 R Sandy substrate

2.6 m² Roots
0.6 m² Snags
0.4 m² AM.

0.17 m/s
Velocity

Left Bank



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

SAMPLE ID _____ ORG ID 21FLETM _____ LATITUDE 27.48932972 _____
COUNTY Highlands _____ STORET # Gmc _____ LONGITUDE -81.30713352 _____
DATE 10/14/19 _____ TIME 1110 _____ SAMPLING AGENCY FDEP-SROC _____
SITE NAME Arbuckle Branch _____
FIELD ID/NAME G4SP0172 _____ RECEIVING BODY OF WATER Lake Istokpaga _____

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industry ☐ Other (Specify) ☐						Military - 20 Dairy - 10 Other (Specify) 203b NE		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: ☐ Right Bank: ☐ Hydrologic Modification Score (per FT 3101) ☐						Typical Width (m) Depth (m)/Velocity (m/sec) Transect ☐ m wide ☐ m/s ☐ m/s ☐ m/s ☐ m deep ☐ m deep ☐ m deep			
High Water Mark: ☐ + ☐ = ☐ (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 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 <table style="width: 100%;"> <tr> <th></th> <th>% Coverage</th> <th>INVERT # Times Sampled</th> <th>PERI # Times Sampled</th> </tr> <tr><td>Woody Debris (Snags)</td><td></td><td></td><td></td></tr> <tr><td>Undercut Banks / Roots</td><td></td><td></td><td></td></tr> <tr><td>Leaf Packs or Mat</td><td></td><td></td><td></td></tr> <tr><td>Aquatic Vegetation</td><td></td><td></td><td></td></tr> <tr><td>Rock or Shell Rubble..</td><td></td><td></td><td></td></tr> <tr><td>Sand.....</td><td></td><td></td><td></td></tr> <tr><td>Mud / Muck / Silt</td><td></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> </table>		% 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 <table style="width: 100%;"> <tr> <th>Depth (M)</th> <th>Temp. (°C)</th> <th>pH (SU)</th> <th>D.O. (MG/L)</th> <th>D.O. Sat (%)</th> <th>Cond. (UMHO/CM)</th> <th>Salinity (PPT)</th> <th>SECCHI (M)</th> </tr> <tr> <td>Top: 0.05</td> <td>26.5</td> <td>5.78</td> <td>7.50</td> <td>93.5</td> <td>232.2</td> <td>0.11</td> <td>0.1</td> </tr> <tr> <td>Mid:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>☒ VOB</td> </tr> <tr> <td>Bottom</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>TOTAL DEPTH</td> </tr> </table> Meter ID: SNEK	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)	Top: 0.05	26.5	5.78	7.50	93.5	232.2	0.11	0.1	Mid:							☒ VOB	Bottom							TOTAL DEPTH
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Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: _____ Exp: _____	Water Surface Oils Normal ☒ Sheen ☐ Globs ☐ Slick ☐ Other ☐ Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) ☐ _____ Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐
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ABUNDANCE <table style="width: 100%;"> <tr> <th></th> <th>Not Obs.</th> <th>Rare</th> <th>Common</th> <th>Abundant</th> </tr> <tr><td>Periphyton:</td><td>☒</td><td>☐</td><td>☐</td><td>☐</td></tr> <tr><td>Fish:</td><td>☐</td><td>☒</td><td>☐</td><td>☐</td></tr> <tr><td>Aquatic Plants:</td><td>☐</td><td>☒</td><td>☐</td><td>☐</td></tr> <tr><td>Iron/Sulfur Bacteria:</td><td>☒</td><td>☐</td><td>☐</td><td>☐</td></tr> </table>		Not Obs.	Rare	Common	Abundant	Periphyton:	☒	☐	☐	☐	Fish:	☐	☒	☐	☐	Aquatic Plants:	☐	☒	☐	☐	Iron/Sulfur Bacteria:	☒	☐	☐	☐	System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐ AMBIENT FIELD CONDITIONS / NOTES: water levels were low. ☒ The antecedent hydrologic conditions have been met to my best knowledge.
	Not Obs.	Rare	Common	Abundant																						
Periphyton:	☒	☐	☐	☐																						
Fish:	☐	☒	☐	☐																						
Aquatic Plants:	☐	☒	☐	☐																						
Iron/Sulfur Bacteria:	☒	☐	☐	☐																						

Nicole Reistad, Gary Shorez, Chase
Conley

Nicola Kental

10/14/2019



G4SD0172



Arbuckle Branch

00-25 Rapid Periphyton Survey Field Sheet

Chase Conley

County:

Highlands

Date:

10/14/19

Investigators:

Nicole Reisted Gary Snorek

STORET Station Number:

G4SD0172

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	N		60	1	N	N		
	2					2				
	3					3				
	4					4				
	5					5				15
	6					6				
	7					7				
	8					8				
	9					9				
10	1	N	N		70	1	N	N		
	2					2				
	3					3				
	4					4				
	5					5				0
	6					6				
	7					7				
	8					8				
	9					9				
20	1	N	N		80	1	N	N		
	2					2				
	3					3				
	4					4				
	5					5				0
	6					6				
	7					7				
	8					8				
	9					9				
30	1	N	N		90	1	N	N		
	2					2				
	3					3				
	4					4				
	5					5				3
	6					6				
	7					7				
	8					8				
	9					9				
40	1	N	N		100	1	N	N		
	2					2				
	3					3				
	4					4				
	5					5				1
	6					6				
	7					7				
	8					8				
	9					9				
50	1	N	N		50	1	N	N		
	2					2				
	3					3				
	4					4				
	5					5				
	6					6				
	7					7				
	8					8				
	9					9				

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%.

Secchi depth 10.1
Estimated?

points ranked 4-6 0
total points assessed 99
% points ranked 4-6 0

Check accompanying data collected at same site/date.
Algal mat sample
Linear Veg Survey X
Habitat Assessment X
SCI/Biorecon
Water sample X
RQ- 2019-07-29-74

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

Waterbody:		Date:		County:		Storet Number:																					
Analyst:				Signature:																							
Comments:																											
Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1m ² of taxa present). Note in the boxes below if no dominant are selected, and note total macrophyte abundance rank for each section. Only the most common taxa are listed, so use blank spaces for additional taxa names.																											
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	80-90	90-100					
Alternanthera philoxeroides	P	P	P	P	P	P	P	P	P	P		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 hydrophiloides	P														
Commelina virginica												Polygonum punctatum															
Crinum americanum												Pontedaria cordata															
Diodia virginiana												Potamogeton illinoensis															
Eichhornia crassipes												Ruellia simplex															
Eleocharis (wispy viviparous)	P	P	P	P	P	P	P	P	P	P		Sacciolepis striata															
Hydrilla verticillata												Sagittaria kurziana															
Hydrocotyle												Sagittaria lancifolia															
Hygrophila polysperma												Sagittaria latifolia															
Hymerocallis												Salvinia minima															
Lachnanthes caroliniana												Samolus parviflora															
Landoltia punctata																											