



# FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Date Qualified?

Yes / No

WIN Station Name: Little Sweetwater Creek @ USGS Gauge

Date: 4-16-2019  
(mm/dd/yyyy)

WIN/ Field ID: G2WA0018

WBID: 815

Latitude: 30.4743  
(Decimal Degrees)

County: Liberty

ORG ID: 21FLWQA

Longitude: -84.98303  
(Decimal Degrees)

Receiving Body of Water: Apalachicola River

RQ: 2019-02-25-07

| Sampling Team Members |  |  |  |  | WQ Measurements | Sample Collection | Documentation | Preservation | Preservation Check |
|-----------------------|--|--|--|--|-----------------|-------------------|---------------|--------------|--------------------|
| April Wood-McGrath    |  |  |  |  |                 |                   |               |              |                    |
| Blaise Spencer        |  |  |  |  |                 |                   |               |              |                    |
| Curtis Musson         |  |  |  |  |                 |                   |               |              |                    |

| Sampling Equipment                                   |                                                                 |
|------------------------------------------------------|-----------------------------------------------------------------|
| <input checked="" type="checkbox"/> Sample Container | <input type="checkbox"/> Van Dorn <input type="checkbox"/> Pole |
| <input type="checkbox"/> Carboy                      | <input checked="" type="checkbox"/> Syringe                     |
| <input type="checkbox"/> Dipper                      | <input type="checkbox"/> Other                                  |
| Depth Measured with <u>Meter Stick</u>               |                                                                 |
| Equipment ID                                         |                                                                 |

| Collection Method                          |                                         |
|--------------------------------------------|-----------------------------------------|
| <input checked="" type="checkbox"/> Wading | <input type="checkbox"/> Canoe/Kayak    |
| <input type="checkbox"/> From Shore        | <input type="checkbox"/> Electric Motor |
| <input type="checkbox"/> Other             | <input type="checkbox"/> Gasoline Motor |

|                                                                  |  |                                                  |  |                                     |  |
|------------------------------------------------------------------|--|--------------------------------------------------|--|-------------------------------------|--|
| Water Level: Dry / Pooled / Low / <u>Normal</u> / High / Flooded |  | Meter ID# <u>Biology #2</u>                      |  | Matrix: <u>Fresh</u> Marine / DI    |  |
| Photos: <u>Yes</u> / No                                          |  | Flow: No Flow / Intestinal / <u>Flowing</u> / NA |  | Tide: Rising / Falling / Slack / NA |  |
| Tide Times: High <u>      </u> Low <u>      </u>                 |  |                                                  |  |                                     |  |

| Time Zone | Time  | Total Depth (m) | Sample Depth (m) | Secchi Disk (m) | DO (mg/L) | DO (%SAT) | pH   | Salinity (PPT) | Sp COND (µmhos/cm) | Temp. (C°) |
|-----------|-------|-----------------|------------------|-----------------|-----------|-----------|------|----------------|--------------------|------------|
| EST       | 10:49 | 0.4             | 0.2              | 1003            | 9.85      | 100.0     | 4.64 | 0.01           | 20                 | 15.96      |
| CEN       |       |                 |                  |                 |           |           |      |                |                    |            |

|                                                                                                                     |  |
|---------------------------------------------------------------------------------------------------------------------|--|
| Biological Samples Collected: None <u>HA</u> <u>SCI</u> <u>RPS</u> Algae ID <u>LVS</u> LVI Other:                   |  |
| SBIO ID Numbers: SBIO-ID: <u>79335</u> HA-ID: <u>15726</u> RPS-ID: Macrophyte-ID: <u>L2m2</u> LIMS#: <u>2078452</u> |  |

| Parameter Suite             | Parameter Methods                                                                                                                                                                                                                                       | Preservation                                                                      | Lot#             | Expiration      | pH Check                               |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------|-----------------|----------------------------------------|
| Preserved Nutrients         | <input checked="" type="checkbox"/> W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP                                                                                                                                                                         | <input checked="" type="checkbox"/> Ice <input checked="" type="checkbox"/> H2SO4 | <u>SA8344070</u> | <u>12/10/19</u> | <input checked="" type="checkbox"/> <2 |
| Metals                      | <input checked="" type="checkbox"/> W-ICPMS <input checked="" type="checkbox"/> W-ICP                                                                                                                                                                   | <input checked="" type="checkbox"/> Ice <input checked="" type="checkbox"/> HNO3  | <u>NA8344050</u> | <u>12/10/19</u> | <input checked="" type="checkbox"/> <2 |
| Filtered Nutrients          | <input checked="" type="checkbox"/> W-PO4-F <input checked="" type="checkbox"/> Field Filtered 0.45 µm Filter                                                                                                                                           | <input checked="" type="checkbox"/> Ice                                           |                  |                 |                                        |
| Chlorophyll                 | <input checked="" type="checkbox"/> CHLSUITE-W                                                                                                                                                                                                          | <input checked="" type="checkbox"/> Ice                                           |                  |                 |                                        |
| Physical/Aggregate (Fresh)  | <input checked="" type="checkbox"/> Alkalinity / W-F / W-TSS / TURBIDITY / W-CH-IC / W-COLOR / W-SO4-IC / W-TDS                                                                                                                                         | <input checked="" type="checkbox"/> Ice                                           |                  |                 |                                        |
| Physical/Aggregate (Marine) | <input type="checkbox"/> Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY                                                                                                                                                                                 | <input type="checkbox"/> Ice                                                      |                  |                 |                                        |
| Macroinvertebrates          | <input checked="" type="checkbox"/> MI-FW-QLDC                                                                                                                                                                                                          | <input checked="" type="checkbox"/> Formalin                                      |                  |                 |                                        |
| Periphyton                  | <input type="checkbox"/> ALGAE-ID                                                                                                                                                                                                                       | <input type="checkbox"/> Ice                                                      |                  |                 |                                        |
| Microbiology                | <input checked="" type="checkbox"/> E Coli <input type="checkbox"/> F Coli <input type="checkbox"/> Enterococci                                                                                                                                         | <input checked="" type="checkbox"/> Ice                                           |                  |                 |                                        |
| Molecular                   | <input type="checkbox"/> PCR-FILTER <input type="checkbox"/> PCR-BacR <input type="checkbox"/> PCR-GULL2<br><input type="checkbox"/> PCR-HF183 <input type="checkbox"/> PCR-DG3 <input type="checkbox"/> PCR-GFD                                        | <input type="checkbox"/> Ice                                                      |                  |                 |                                        |
| Tracers                     | <input type="checkbox"/> W-E8321-DI <input type="checkbox"/> W-E8321-MS                                                                                                                                                                                 | <input type="checkbox"/> Ice                                                      |                  |                 |                                        |
| Pesticides                  | <input checked="" type="checkbox"/> W-PSNP-TQ <input type="checkbox"/> W-CT-CL-R <input checked="" type="checkbox"/> W-E8321-DI<br><input type="checkbox"/> W-PCL-SQ-R <input checked="" type="checkbox"/> WE8321-MS <input type="checkbox"/> W-CARB-AA | <input type="checkbox"/> Ice                                                      |                  |                 |                                        |
| Phytoplankton               | <input type="checkbox"/> DTY-QN-C <input type="checkbox"/> PKD-QN-C                                                                                                                                                                                     | <input type="checkbox"/> Ice                                                      |                  |                 |                                        |

Notes:

SCI KIT

Place Label Here

|                               |                      |
|-------------------------------|----------------------|
| Signature: <u>[Signature]</u> | Date: <u>4/16/19</u> |
|-------------------------------|----------------------|

LIMS EVENT ID: WAS-SECT-2019-04-16-01

WIN Import ID: \_\_\_\_\_

Enter Field Parameters, Verify Station ID In LIMS DMT: BBB 4/19/19  
(Initials/Date)

QC Station ID, Field Parameters In LIMS DMT: ANN 6/14/19  
(Initials/Date)

Scan/Save Field Sheets \_\_\_\_\_  
(Initials/Date)

Migrate Data to WIN: \_\_\_\_\_  
(Initials/Date)

Verify Data In WIN: \_\_\_\_\_  
(Initials/Date)

Entered by: AK 4/22/19

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

SAMPLE ID 79335 ORG ID 2FLWQA LATITUDE 30.47443  
 COUNTY Liberty STORET # G2WAO018 LONGITUDE -84.98303  
 DATE 04/16/2019 TIME 10:49 AM SAMPLING AGENCY FDEP  
 SITE NAME Little Sweet Water Creek @ USGS Gauge  
 FIELD ID/NAME G2WAO018 RECEIVING BODY OF WATER Appalachicola River

## RIPARIAN ZONE / STREAM FEATURES

|                                                                                                                                                                                                                                                                                                                                                                    |  |  |  |                                                                                                                                                                                                              |  |  |  |                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-------------------------------------------------------------------------------------------------------------------------|
| <b>PREDOMINANT LAND-USE IN WATERSHED</b> (specify relative percent in each category):<br>Forest/Natural <u>24%</u> Silviculture <u>75%</u> Field/Pasture <u>0.4%</u> Agricultural <u>—</u> Residential <u>—</u> Commercial <u>—</u> Industry <u>0.3%</u> Other (Specify) <u>Water</u> <u>0.8%</u>                                                                  |  |  |  |                                                                                                                                                                                                              |  |  |  | <b>Landscape Development Intensity Index (LDI)</b><br><u>1.49</u>                                                       |
| Local Watershed Erosion (select one): <input checked="" type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Heavy<br>Local Watershed NPS Pollution: <input checked="" type="checkbox"/> No evidence <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Heavy |  |  |  |                                                                                                                                                                                                              |  |  |  | <b>Typical Width (m) Depth (m)/Velocity (m/sec) Transect</b><br><u>3</u> m wide<br><u>0.32</u> m/s<br><u>0.4</u> m deep |
| <b>Width of Riparian Vegetation (m) on Each Buffer Side</b><br>Left Bank: <u>&gt;18</u> Right Bank: <u>&gt;18</u>                                                                                                                                                                                                                                                  |  |  |  | <b>Hydrologic Modification Score</b> (per FT 3101) <u>1-2</u>                                                                                                                                                |  |  |  |                                                                                                                         |
| <b>High Water Mark:</b> <u>0.3</u> + <u>0.4</u> = <u>0.7</u><br>(m) (above present water level) (present depth) (above bed)                                                                                                                                                                                                                                        |  |  |  | <b>Artificially Impounded</b><br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                                                                                         |  |  |  |                                                                                                                         |
| <b>Artificially</b> <input checked="" type="checkbox"/> No <input type="checkbox"/> Mostly recovered, more sinuous<br><b>Channelized:</b> <input type="checkbox"/> Some recovery <input type="checkbox"/> Recent, severe                                                                                                                                           |  |  |  | <b>Canopy Cover %</b> <input type="checkbox"/> Open <input checked="" type="checkbox"/> Lightly Shaded (11-45%)<br><input type="checkbox"/> Heavily Shaded <input type="checkbox"/> Moderate Shaded (46-80%) |  |  |  |                                                                                                                         |

## SEDIMENT / SUBSTRATE

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |                                                                                                                                                                                                                                                                                         |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <b>Sediment Oils</b><br><input checked="" type="checkbox"/> Absent <input type="checkbox"/> Slight<br><input type="checkbox"/> Moderate <input type="checkbox"/> Profuse                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  | <b>Sediment Odors</b><br><input checked="" type="checkbox"/> Normal <input type="checkbox"/> Sewage <input type="checkbox"/> Petroleum<br><input type="checkbox"/> Chemical <input type="checkbox"/> Anaerobic<br><input type="checkbox"/> Other (Specify):                             |  |  | <b>Smothering of Substrates</b><br>Sand Smothering: None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Severe <input type="checkbox"/><br>Silt Smothering: None <input checked="" type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/><br>Algae Smothering: None <input checked="" type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> |  |  |
| <b>SUBSTRATE TYPE</b><br>Assessment Tool: <input checked="" type="checkbox"/> SCI <input checked="" type="checkbox"/> RPS <input checked="" type="checkbox"/> LVS<br><input type="checkbox"/> LCI <input type="checkbox"/> BioRecon<br>% Coverage INVERT # Times Sampled PERI # Times Sampled<br>Woody Debris (Snags) <u>6</u> <u>5</u><br>Undercut Banks / Roots <u>10</u> <u>5</u><br>Leaf Packs or Mat ..... <u>2</u> <u>5</u><br>Aquatic Vegetation ..... <u>0.01</u> <u>1</u><br>Rock or Shell Rubble.....<br>Sand..... <u>&gt;30</u> <u>4</u><br>Mud / Muck / Silt .....<br>Other .....<br>Other ..... |  |  | <b>WATER QUALITY</b><br>Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M)<br>Top: <u>0.2</u> <u>15.96</u> <u>4.64</u> <u>9.88</u> <u>100.0</u> <u>20</u> <u>0.01</u> <u>0.4</u><br>Mid:<br>Bottom:<br>Meter ID:<br>TOTAL DEPTH <u>0.4</u> |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
| <b>ABUNDANCE</b><br>Not Obs. Rare Common Abundant<br>Periphyton: <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br>Fish: <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/><br>Aquatic Plants: <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br>Iron/Sulfur Bacteria: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>                            |  |  | <b>Water Odors</b> Normal <input checked="" type="checkbox"/> Petroleum <input type="checkbox"/><br>Sewage <input type="checkbox"/> Chemical <input type="checkbox"/> Other <input type="checkbox"/>                                                                                    |  |  | <b>Water Surface Oils</b> Normal <input checked="" type="checkbox"/> Sheen <input type="checkbox"/><br>Globbs <input type="checkbox"/> Slick <input type="checkbox"/> Other <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                          |  |  |
| Water Sample Taken? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Sample Preserved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Lot Number: <u>See Field Exp. Sheet</u>                                                                                                                                                                                                                                                                                                                                                                                  |  |  | <b>Color</b> Tannic <input checked="" type="checkbox"/> Green (Algae) <input type="checkbox"/><br>Clear <input type="checkbox"/> Other (Specify) <input type="checkbox"/>                                                                                                               |  |  | <b>Clarity</b> Clear <input checked="" type="checkbox"/> Slightly Turbid <input type="checkbox"/><br>Turbid <input type="checkbox"/> Opaque <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                          |  |  |
| Algae Sample Taken? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Sample Preserved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Lot Number: <u>ICE</u> Exp:                                                                                                                                                                                                                                                                                                                                                                                              |  |  | <b>System Type:</b> Stream <input type="checkbox"/> Lake <input type="checkbox"/> Wetland <input type="checkbox"/> Estuary <input type="checkbox"/> Other(Specify) <input type="checkbox"/>                                                                                             |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
| <b>AMBIENT FIELD CONDITIONS / NOTES:</b><br><input checked="" type="checkbox"/> The antecedent hydrologic conditions have been met to my best knowledge.                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |                                                                                                                                                                                                                                                                                         |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |

|                                                                                 |                                         |                                |
|---------------------------------------------------------------------------------|-----------------------------------------|--------------------------------|
| <b>SAMPLING TEAM</b><br><u>Blake Spencer, Curtis Musson, Avril Wood-McGrath</u> | <b>SIGNATURE:</b><br><u>[Signature]</u> | <b>DATE:</b><br><u>4/16/19</u> |
|---------------------------------------------------------------------------------|-----------------------------------------|--------------------------------|

Entered by: *4/22/19*  
QC'd by: *AWM 6/14/19*

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

5810: 79335

|                                                                    |                           |                                                           |                                    |                                                       |
|--------------------------------------------------------------------|---------------------------|-----------------------------------------------------------|------------------------------------|-------------------------------------------------------|
| SAMPLING AGENCY:<br>Florida Department of Environmental Protection |                           | STORET STATION NUMBER:<br><i>G2WA0018</i>                 | DATE (MM/DD/YY):<br><i>4/16/19</i> | RECEIVING BODY OF WATER:<br><i>Apalachicola River</i> |
| REMARKS:<br><i>HA: 15726</i>                                       | COUNTY:<br><i>Liberty</i> | LOCATION:<br><i>Little Sweetwater Creek at USGS Gauge</i> |                                    | FIELD ID/NAME:<br><i>G2WA0018</i>                     |

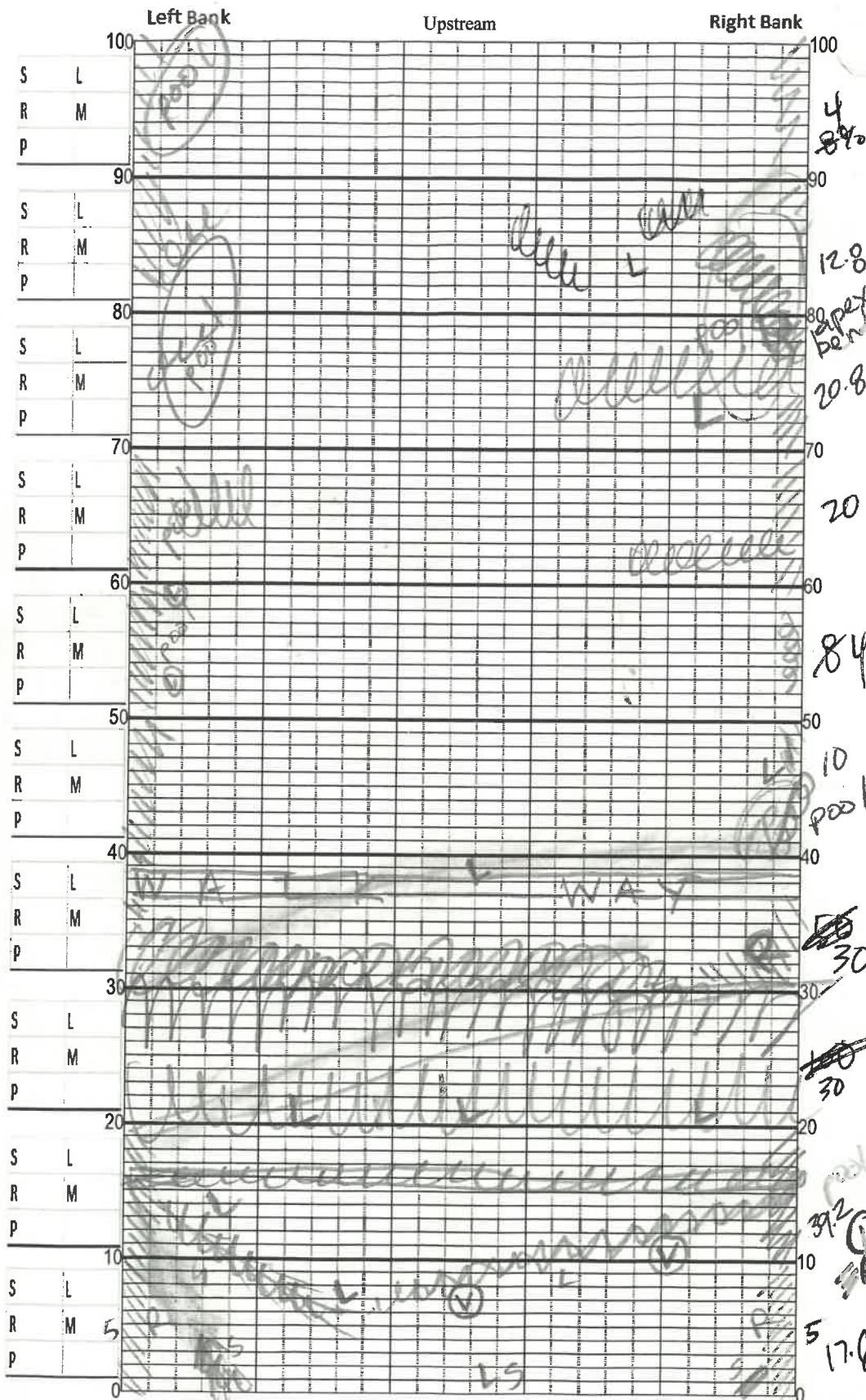
| Habitat Parameter                                                                                                                                                                                                                                          | Optimal                                                                                                                                                                                                                  | Suboptimal                                                                                                                                                              | Marginal                                                                                                                                                | Poor                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Primary Habitat Components<br> <br>Aquatic Vegetation<br>Substrate Diversity <i>14</i> ✓ | Four or more major productive habitats present (snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock)<br>20 19 18 17 16                                                                           | Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags)<br>15 <i>14</i> 13 12 11                             | Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed<br>10 9 8 7 6                                       | One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered<br>5 4 3 2 1                            |
| Substrate Availability <i>12</i> ✓<br>%                                                                                                                                                                                                                    | Major productive habitat present at site<br>(>30% 27.2% 25.8% 24.4% 26.6%)<br>20 19 18 17 16                                                                                                                             | Major productive habitat, by aerial extent<br>(21.6% 20.2% 18.8% 17.4% 16%)<br>15 14 13 <i>12</i> 11                                                                    | 6% to 15% major productive habitat<br>(15% 13% 11% 9% 6%)<br>10 9 8 7 6                                                                                 | Less than 5% major productive habitat<br>5 4 3 2 1                                                                                         |
| Water Velocity <i>20</i> ✓<br><i>33</i> m/s                                                                                                                                                                                                                | Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec<br>0.33 0.31 0.29 0.27 >0.25<br>20 19 18 17 16                                                                                                            | Max. observed at typical transect: >0.1 to 0.25 m/sec<br>0.25 0.21 0.17 0.13 >0.1<br>15 14 13 12 11                                                                     | Max. observed at typical transect: 0.05 to 0.1 m/sec<br>0.1 0.09 0.07 0.06 0.05<br>10 9 8 7 6                                                           | Max. observed at typical transect: <0.05 m/sec; or spate occurring: > 1 m/sec<br><0.05 0.04 0.03 0.01 <0.01<br>5 4 3 2 1                   |
| Habitat Smothering <i>11</i> ✓<br>Primary Score <i>54</i> ✓                                                                                                                                                                                                | Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae.<br>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.<br>15 14 13 12 <i>11</i>                                | Does not have required number of stable pools (1-2 per 12 x width) and/or has shallow pools (<2 x prevailing depth).<br>10 9 8 7 6                      | Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation.<br>5 4 3 2 1                                         |
| Secondary Habitat Components<br>Artificial Channelization <i>20</i> ✓                                                                                                                                                                                      | Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks.<br>20 19 18 17 16                                                                                        | Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered. May have spoil banks.<br>15 14 13 12 11                    | Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area. May have spoil banks.<br>10 9 8 7 6 | Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks.<br>5 4 3 2 1 |
| Bank Stability<br>Right Bank <i>10</i> ✓<br>Left Bank <i>10</i> ✓<br>If Banks are PipeClay, BedRock or Concrete at Bank full: Optimal                                                                                                                      | 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. (+,+,+)<br>20 19 18 17 16<br>10 9                                 | Only meets 2 of the 3 requirements for optimal bank stability. (+,+,+)<br>8 7 6                                                                                         | Only meets 1 of the 3 requirements for optimal bank stability. (+,+,+)<br>5 4                                                                           | Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas. (-,-,-)<br>3 2 1               |
| Riparian Buffer Zone Width<br>Right Bank <i>10</i> ✓<br>Left Bank <i>10</i> ✓                                                                                                                                                                              | Width of vegetation greater than 18 m<br>10 9                                                                                                                                                                            | Width of vegetation >12 to 18m<br>8 7 6<br>(18m 15m 12m)                                                                                                                | Width of vegetation 6 to 12 m. human activities close to system<br>5 4<br>(9m)                                                                          | Less than 6 m of buffer zone due to intensive human activities<br>3 2 1<br>(6-5m) (4-3m) (<2m)                                             |
| Riparian Zone Vegetation Quality<br>Right Bank <i>10</i> ✓<br>Left Bank <i>10</i> ✓<br>Secondary Score <i>80</i> ✓                                                                                                                                         | 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<br>10 9 | >50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed.<br>8 7 6 | 25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious.<br>5 4       | Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions).<br>3 2 1         |

*137* ✓

TOTAL SCORE

|                         |                                  |                                    |
|-------------------------|----------------------------------|------------------------------------|
| Date:<br><i>4/16/19</i> | Analyst:<br><i>Curtis Mosson</i> | Signature:<br><i>Curtis Mosson</i> |
|-------------------------|----------------------------------|------------------------------------|

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



Location: Little Sweet Water Creek  
 Date: 4-16-19  
 Sampler: Curtis Mussen / Blake Spencer  
Audrey April Wood-McGregor

100 m: Latitude 30.474235  
 Longitude -84.981990  
 0 m: Latitude 30.47443  
 Longitude -84.98303

Substrates: Code key, draw proportionate habitat abundance. %

|                             |                      |                                                                  |
|-----------------------------|----------------------|------------------------------------------------------------------|
| <input type="checkbox"/> S  | Snags                | <u>6</u>                                                         |
| <input type="checkbox"/> R  | Roots/undercut banks | <u>10</u>                                                        |
| <input type="checkbox"/> L  | Leaf Packs (or mats) | <u>2</u>                                                         |
| <input type="checkbox"/> M  | Aquatic Macrophytes  | <u>0</u>                                                         |
| <input type="checkbox"/> Rc | Rock                 | <u>0</u>                                                         |
| <input type="checkbox"/> P  | Pools                | total # observed = <u>    </u><br># range expected = <u>    </u> |

Average width 3 m  
 Average depth 3 m  
 Velocity measured at 0 meter mark.  
 Velocity 0.33 m/s

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.

Notes/Plants Observed:  
 2m<sup>2</sup> = 13.2 Sweeps

| # of Sweeps               | Conversion | m <sup>2</sup> | % |
|---------------------------|------------|----------------|---|
| Snag                      | ÷ 8        | m <sup>2</sup> |   |
| Root                      | ÷ 8        | m <sup>2</sup> |   |
| Leaf                      | ÷ 8        | m <sup>2</sup> |   |
| Macrophyte                | ÷ 8        | m <sup>2</sup> |   |
| Rock                      | ÷ 8        | m <sup>2</sup> |   |
| Total Available Habitat   |            | m <sup>2</sup> |   |
| Total Area                |            | m <sup>2</sup> |   |
| Total Unavailable Habitat |            | m <sup>2</sup> |   |

| Meter Mark | Depth (m) | Width (m) | Velocity Measurement (Sec) |
|------------|-----------|-----------|----------------------------|
|            |           |           |                            |
|            |           |           |                            |
|            |           |           |                            |
| Avg.       |           |           |                            |

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

Expected Number of Pools

$$\left( \frac{100}{12 \times 3} \right) \times 1 = 2.7$$

$$\left( \frac{100}{12 \times 5} \right) \times 2 = 5.5$$

Entered by: ~~AMM~~ 4/22/19  
QC'd by: AMM 6/14/19

SRIO: 79335 RPS: 9293

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Little Sweet Water Creek

County: Liberty

Date: 4-16-19

Investigators: Blake Sponsar / Avni Wood-Mcgrath

STORET Station Number:

GLWA0018

| Transect (m) | Point<br>1=right<br>9=left | Algal Thickness Rank<br>(N-6, X) | Estimated | Canopy Cover | Transect (m) | Point<br>1=right<br>9=left | Algal Thickness Rank<br>(N-6, X) | Estimated | Canopy Cover |  |
|--------------|----------------------------|----------------------------------|-----------|--------------|--------------|----------------------------|----------------------------------|-----------|--------------|--|
| 0            | 1                          | N                                |           |              | 60           | 1                          | N                                |           |              |  |
|              | 2                          |                                  |           |              |              | 2                          |                                  |           |              |  |
|              | 3                          |                                  |           |              |              | 3                          |                                  |           |              |  |
|              | 4                          |                                  |           |              |              | 4                          |                                  |           |              |  |
|              | 5                          |                                  |           | 61           |              | 5                          |                                  |           | 42           |  |
|              | 6                          |                                  |           |              |              | 6                          |                                  |           |              |  |
|              | 7                          |                                  |           |              |              | 7                          |                                  |           |              |  |
|              | 8                          |                                  |           |              |              | 8                          |                                  |           |              |  |
|              | 9                          |                                  |           |              |              | 9                          |                                  |           |              |  |
| 10           | 1                          | N                                |           |              | 70           | 1                          | N                                |           |              |  |
|              | 2                          |                                  |           |              |              | 2                          |                                  |           |              |  |
|              | 3                          |                                  |           |              |              | 3                          |                                  |           |              |  |
|              | 4                          |                                  |           | 48           |              | 4                          |                                  |           |              |  |
|              | 5                          |                                  |           |              |              | 5                          |                                  |           | 83           |  |
|              | 6                          |                                  |           |              |              | 6                          |                                  |           |              |  |
|              | 7                          |                                  |           |              |              | 7                          |                                  |           |              |  |
|              | 8                          |                                  |           |              |              | 8                          |                                  |           |              |  |
|              | 9                          |                                  |           |              |              | 9                          |                                  |           |              |  |
| 20           | 1                          | N                                |           |              | 80           | 1                          | N                                |           |              |  |
|              | 2                          |                                  |           |              |              | 2                          |                                  |           |              |  |
|              | 3                          |                                  |           |              |              | 3                          |                                  |           |              |  |
|              | 4                          |                                  |           |              |              | 4                          |                                  |           |              |  |
|              | 5                          |                                  |           | 27           |              | 5                          |                                  |           | 74           |  |
|              | 6                          |                                  |           |              |              | 6                          |                                  |           |              |  |
|              | 7                          |                                  |           |              |              | 7                          |                                  |           |              |  |
|              | 8                          |                                  |           |              |              | 8                          |                                  |           |              |  |
|              | 9                          |                                  |           |              |              | 9                          |                                  |           |              |  |
| 30           | 1                          | X                                | X         |              | 90           | 1                          | N                                |           |              |  |
|              | 2                          |                                  |           |              |              | 2                          |                                  |           |              |  |
|              | 3                          |                                  |           |              |              | 3                          |                                  |           |              |  |
|              | 4                          |                                  |           |              |              | 4                          |                                  |           |              |  |
|              | 5                          |                                  |           | X            |              | 5                          |                                  |           | 37           |  |
|              | 6                          |                                  |           |              |              | 6                          |                                  |           |              |  |
|              | 7                          |                                  |           |              |              | 7                          |                                  |           |              |  |
|              | 8                          |                                  |           |              |              | 8                          |                                  |           |              |  |
|              | 9                          |                                  |           |              |              | 9                          |                                  |           |              |  |
| 40           | 1                          | N                                |           |              | 100          | 1                          | N                                |           |              |  |
|              | 2                          |                                  |           |              |              | 2                          |                                  |           |              |  |
|              | 3                          |                                  |           |              |              | 3                          |                                  |           |              |  |
|              | 4                          |                                  |           |              |              | 4                          |                                  |           |              |  |
|              | 5                          |                                  |           | 31           |              | 5                          |                                  |           | 82           |  |
|              | 6                          |                                  |           |              |              | 6                          |                                  |           |              |  |
|              | 7                          |                                  |           |              |              | 7                          |                                  |           |              |  |
|              | 8                          |                                  |           |              |              | 8                          |                                  |           |              |  |
|              | 9                          |                                  |           |              |              | 9                          |                                  |           |              |  |
| 50           | 1                          | N                                |           |              |              | 1                          | N                                |           |              |  |
|              | 2                          |                                  |           |              |              | 2                          |                                  |           |              |  |
|              | 3                          |                                  |           |              |              | 3                          |                                  |           |              |  |
|              | 4                          |                                  |           |              |              | 4                          |                                  |           |              |  |
|              | 5                          |                                  |           | 75           |              | 5                          |                                  |           |              |  |
|              | 6                          |                                  |           |              |              | 6                          |                                  |           |              |  |
|              | 7                          |                                  |           |              |              | 7                          |                                  |           |              |  |
|              | 8                          |                                  |           |              |              | 8                          |                                  |           |              |  |
|              | 9                          |                                  |           |              |              | 9                          |                                  |           |              |  |

Secchi depth 100  
Estimated? no

# points ranked 4-6 0  
total points assessed 29  
% points ranked 4-6 0

(Exclude X's)

Check accompanying data collected at same site/date.

Algal mat sample ☒  
Linear Veg Survey ☒  
Habitat Assessment ☒  
SCI/Biorecon ☒  
Water sample ☒

RQ: 2019-02-28-07

| 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                                  |

(> 3 considered smothered)

(N to 1 mm)

(3) 6mm

(4) 20mm

(5) 10cm

(6)

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%.

# DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Waterbody: Little Street Vaden Creek Date: 4/14/19 County: Liberty Storet Number: G2WA0018

Analyst: Curtis M. Sisson Signature: Curtis M. Sisson

Comments: SMP Sampling Aquatic Vegetation 42m<sup>2</sup>

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m<sup>2</sup> 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 |                            |
| <i>Alternanthera philoxeroides</i>   |            |       |       |       |       |       |       |       |       |        |                            | <i>Myriophyllum heterophyllum</i>           |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Bacopa caroliniana</i>            |            |       |       |       |       |       |       |       |       |        |                            | <i>Najas guadelupensis</i>                  |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Bacopa monnieri</i>               |            |       |       |       |       |       |       |       |       |        |                            | <i>Nuphar luteum</i>                        |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Bidens mitis</i>                  |            |       |       |       |       |       |       |       |       |        |                            | <i>Orontium aquaticum</i>                   |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Boehmeria cylindrica</i>          |            |       |       |       |       |       |       |       |       |        |                            | <i>Panicum hemitomon</i>                    |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Centella asiatica</i>             |            |       |       |       |       |       |       |       |       |        |                            | <i>Panicum repens</i>                       |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Ceratophyllum demersum</i>        |            |       |       |       |       |       |       |       |       |        |                            | <i>Panicum rigidulum</i>                    |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Chara</i>                         |            |       |       |       |       |       |       |       |       |        |                            | <i>Peltandra virginica</i>                  |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Cicuta maculata</i>               |            |       |       |       |       |       |       |       |       |        |                            | <i>Pistia stratioides</i>                   |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Cladium jamaicense</i>            |            |       |       |       |       |       |       |       |       |        |                            | <i>Polygonum glabra</i>                     |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Colocasia esculenta</i>           |            |       |       |       |       |       |       |       |       |        |                            | <i>Polygonum hydropiperoides</i>            |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Commelina diffusa</i>             |            |       |       |       |       |       |       |       |       |        |                            | <i>Polygonum punctatum</i>                  |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Commelina virginica</i>           |            |       |       |       |       |       |       |       |       |        |                            | <i>Pontedaria cordata</i>                   |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Crinum americanum</i>             |            |       |       |       |       |       |       |       |       |        |                            | <i>Potamogeton illinoensis</i>              |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Diodia virginiana</i>             |            |       |       |       |       |       |       |       |       |        |                            | <i>Rhynchospora inundata</i>                |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Eichhornia crassipes</i>          |            |       |       |       |       |       |       |       |       |        |                            | <i>Rosa palustris</i>                       |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Eleocharis (wispy viviparous)</i> |            |       |       |       |       |       |       |       |       |        |                            | <i>Ruellia simplex</i>                      |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Hydrilla verticillata</i>         |            |       |       |       |       |       |       |       |       |        |                            | <i>Rumex verticillatus</i>                  |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Hydrocotyle</i>                   |            |       |       |       |       |       |       |       |       |        |                            | <i>Sacciolepis striata</i>                  |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Hygrophila polysperma</i>         |            |       |       |       |       |       |       |       |       |        |                            | <i>Sagittaria kurziana</i>                  |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Hymenocallis</i>                  |            |       |       |       |       |       |       |       |       |        |                            | <i>Sagittaria lancifolia</i>                |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Lachnanthes caroliniana</i>       |            |       |       |       |       |       |       |       |       |        |                            | <i>Sagittaria latifolia</i>                 |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Landoltia punctata</i>            |            |       |       |       |       |       |       |       |       |        |                            | <i>Salvinia minima</i>                      |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Lemna</i>                         |            |       |       |       |       |       |       |       |       |        |                            | <i>Samolus parviflora</i>                   |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Limnophila sessiflora</i>         |            |       |       |       |       |       |       |       |       |        |                            | <i>Saururus cernuus</i>                     |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Ludwigia leptocarpa</i>           |            |       |       |       |       |       |       |       |       |        |                            | <i>Scirpus (schenoplectus) californicus</i> |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Ludwigia palustris</i>            |            |       |       |       |       |       |       |       |       |        |                            | <i>Sparganium americanum</i>                |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Ludwigia peruviana</i>            |            |       |       |       |       |       |       |       |       |        |                            | <i>Typha</i>                                |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Ludwigia repens</i>               |            |       |       |       |       |       |       |       |       |        |                            | <i>Vallisneria americana</i>                |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Luziola fluitans</i>              |            |       |       |       |       |       |       |       |       |        |                            | <i>Zizania aquatica</i>                     |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Micranthemum glomeratum</i>       |            |       |       |       |       |       |       |       |       |        |                            | <i>Fontinalis</i>                           |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Micranthemum umbrosum</i>         |            |       |       |       |       |       |       |       |       |        |                            | <i>Fontinalis Sp.</i>                       |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Mikania scandens</i>              |            |       |       |       |       |       |       |       |       |        |                            |                                             |            |       |       |       |       |       |       |       |       |        |                            |
| <i>Myriophyllum aquaticum</i>        |            |       |       |       |       |       |       |       |       |        |                            |                                             |            |       |       |       |       |       |       |       |       |        |                            |

If no Dominant or Co-Dominant were selected, indicate with "X"

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Indicate % cover macrophytes per section

|                                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 0-5% Macrophyte Coverage         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| >5 and ≤10% Macrophyte Coverage  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| >10 and ≤25% Macrophyte Coverage |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| >25 and ≤50% Macrophyte Coverage |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| > 50% Macrophyte Coverage        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Notes:

< 2m<sup>2</sup>

# CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Boldly "X" this box if there are qualified data on this page.

Meter ID: Bio/03V #2

RQ- 2019-02-25-07

Project: SMP

- Notes:** (1) Always wait for meter to stabilize before recording any readings.  
 (2) Report all digits displayed. Do not round before reporting measurements. (See special instructions for depth).  
 (3) For Calibrations, record calibrated meter reading. Do not record initial meter reading before calibration.

## Temperature (Quarterly) FT 1400

Date of Last Temperature Verification \_\_\_\_\_

| DO DEP SOP FT 1500 | Name          | Date    | Time CT-ET | Temp °C | Baro-meter mmHg | D.O. Chart mg/L | Meter D.O. mg/L | % DO  | Probe Charge | Probe Gain | Pass / Fail | Lab / Field |
|--------------------|---------------|---------|------------|---------|-----------------|-----------------|-----------------|-------|--------------|------------|-------------|-------------|
| Calibr.            | Blake Spencer | 4/16/19 | 0712       | 19.68   | 760             | 9.147           | 9.15            | 100.0 | 39.0         | -          | P/F         | L/F         |
| ICV                |               |         | 0713       | 19.69   | 760             | 9.147           | 9.16            | 100.1 | 40.0         | -          | P/F         | L/F         |
| CCV                | Blake Spencer |         | 1434       | 30.26   | 760             | 9.039           | 9.13            | 100.9 | 39.0         | -          | P/F         | L/F         |
| CCV                |               |         |            |         |                 |                 |                 |       |              |            | P/F         | L/F         |

DO Acceptance criteria from Table  $\pm 0.3$  mg/L.

Rapid-Pulse Sensors: DO Gain Range 0.7 to 1.4; DO Charge Range 25-75.

Optical: DO gain range 0.85 to 1.15 (Pro DSS 0.75 to 1.50); DO charge N/A. Steady-state & Galvanic Sensors: DO Gain & Charge N/A.

| Spec. Cond. FT 1200 | Name          | Date    | Time CT-ET | Lot #   | Expir. Date | Standard $\mu$ mhos/cm | Meter Reading $\mu$ mhos/cm | Pass / Fail | Lab / Field |
|---------------------|---------------|---------|------------|---------|-------------|------------------------|-----------------------------|-------------|-------------|
| Calibr.             | Blake Spencer | 4/16/19 | 0719       | 180727D | 10/20/19    | 500                    | 500                         | P/F         | L/F         |
| ICV                 | Blake Spencer | 4/16/19 | 0720       | 180727D | 10/20/19    | 500                    | 501                         | P/F         | L/F         |
| CCV                 | Blake Spencer | 4/16/19 | 1437       | 1805F81 | 05/20/20    | 100                    | 103                         | P/F         | L/F         |
| CCV                 |               |         |            |         |             |                        |                             | P/F         | L/F         |

Conductivity Acceptance criteria  $\pm 5\%$

| pH DEP SOP FT 1100 | Name          | Date    | Time CT-ET | Lot #   | Expir. Date | pH Buffer SU | Temp °C | Meter reading SU | mV     | Pass / Fail | Lab / Field |
|--------------------|---------------|---------|------------|---------|-------------|--------------|---------|------------------|--------|-------------|-------------|
| Calibr.            | Blake Spencer | 4/16/19 | 0724       | 180413C | 10/20/19    | 7.02         | 20.33   | 7.02             | -19.7  | P/F         | L/F         |
| Calibr.            |               | 4/16/19 | 0729       | 180621D | 07/20/19    | 4.00         | 20.44   | 4.00             | 155.1  | P/F         | L/F         |
| Calibr.            |               | 4/16/19 | 0732       | 180521F | 01/20/20    | 10.05        | 20.44   | 10.02            | -147.3 | P/F         | L/F         |
| ICV                |               | 4/16/19 | 0735       | 180621F | 01/20/20    | 10.65        | 20.34   | 10.72            | -187.0 | P/F         | L/F         |
| CCV                | Blake Spencer | 4/16/19 | 1439       | 180621D | 07/20/19    | 4.00         | 20.21   | 3.98             | 152.6  | P/F         | L/F         |
| CCV                |               |         |            |         |             |              |         |                  |        | P/F         | L/F         |

pH Acceptance criteria  $\pm 0.2$  SU; mV pH 7 Range 0  $\pm 50$ ;

mV pH 4 Range  $+180 \pm 50$ ;

mV pH 10 Range  $-180 \pm 50$ ;

If mV are recorded: slope from 7 to 10 \_\_\_\_\_, slope from 4 to 7 \_\_\_\_\_ (both must be between 165 and 180 mV)

Does meter have a depth sensor that will be used to measure total depth & sample depth? YES / NO / NA (not surf. water project)

If YES, complete daily Calibr. & ICV below and list date of last quarterly depth verification: \_\_\_\_\_

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: \_\_\_\_\_; Date of last verification: \_\_\_\_\_

| Depth Sensor (Daily Calibration & ICV) | Name          | Date     | Time CT-ET | Calibrated Value (0.00 or Offset), meters | ICV Value, meters | Pass / Fail | Lab / Field |
|----------------------------------------|---------------|----------|------------|-------------------------------------------|-------------------|-------------|-------------|
| Pressure mode in air                   | Blake Spencer | 04/16/19 | 0737       | 0.00                                      | 0.00              | P/F         | L/F         |

Report two decimal places. Round numbers  $\leq 4$  down,  $\geq 5$  up. ICV acceptance criteria  $\pm 5\%$  or  $\pm 0.05$ m, whichever is greater.

COMMENTS:

Requester: Curtis Musson  
Collected By: April Wood - McArthur, Curtis Musson,  
Field Report Prepared By: Blake Spencer  
Sampling Agency:

Collected By:

|                                                                                       |              |                 |                            |                                                                                       |               |
|---------------------------------------------------------------------------------------|--------------|-----------------|----------------------------|---------------------------------------------------------------------------------------|---------------|
| Relinquished By:                                                                      | Date/Time    | Shipping Method | Number of Coolers Shipped: | Received By:                                                                          | Date/Time     |
|  | 4/16/19 4:37 | HA              | 2                          |  | 4-16-19/14:37 |

|          |                                                                                                    |                |                 |               |                                                             |                                     |
|----------|----------------------------------------------------------------------------------------------------|----------------|-----------------|---------------|-------------------------------------------------------------|-------------------------------------|
| Group: A | Bottle Type:<br>ALKALINITY<br>TURBIDITY<br>W-CL-IC<br>W-COLOR<br>W-F<br>W-SO4-IC<br>W-TDS<br>W-TSS | P-1L           | # of Bottles: 1 | Preservative: | ICE                                                         | Enter Number of Bottles Sent to Lab |
| Group: A | Bottle Type:<br>CHLSUITE-W                                                                         | BP-1L          | # of Bottles: 1 | Preservative: | ICE                                                         | Enter Number of Bottles Sent to Lab |
| Group: A | Bottle Type:<br>ECOLI-18QT                                                                         | P-250ML-WO-THI | # of Bottles: 1 | Preservative: | ICE                                                         | Enter Number of Bottles Sent to Lab |
| Group: A | Bottle Type:<br>W-E8321-DI<br>W-E8321-MS                                                           | BG-500ML       | # of Bottles: 1 | Preservative: | ICE                                                         | Enter Number of Bottles Sent to Lab |
| Group: A | Bottle Type:<br>W-ICP<br>W-ICPMS                                                                   | P-500ML        | # of Bottles: 1 | Preservative: | HNO3<br>LOT# N98344950<br>EXP: 12/10/2019                   | Enter Number of Bottles Sent to Lab |
| Group: A | Bottle Type:<br>W-NH3<br>W-NO2NO3<br>W-S-A-TP<br>W-TKN<br>W-TOC                                    | P-500ML        | # of Bottles: 1 | Preservative: | ICE And H2SO4<br>H2SO4<br>LOT# S98344078<br>EXP: 12/10/2019 | Enter Number of Bottles Sent to Lab |
| Group: A | Bottle Type:<br>W-PO4-F                                                                            | P-125ML        | # of Bottles: 1 | Preservative: | FILTER-ICE<br>lot # 10003005                                | Enter Number of Bottles Sent to Lab |
| Group: A | Bottle Type:<br>W-PSNP-TQ                                                                          | BG-1L          | # of Bottles: 4 | Preservative: | ICE                                                         | Enter Number of Bottles Sent to Lab |
| Group: B | Bottle Type:<br>ALGAL_ID                                                                           | PT-50ML        | # of Bottles: 1 | Preservative: | ICE                                                         | Enter Number of Bottles Sent to Lab |
| Group: B | Bottle Type:                                                                                       | PJ-2L          | # of Bottles: 2 | Preservative: | Formalin                                                    | Enter Number of Bottles Sent to Lab |

Group: B

Bottle Type:  
MI-FW-QLDC

PJ-2L

# of Bottles: 2

Preservative:

Formalin

Enter Number of Bottles Sent to Lab

3

Cooler Packing Worksheet for Request: RQ-2019-02-25-07

SCI 3

Ship Cooler On: 2/21/2019

Customer/Project: WAS-SECT/SMP

Assigned To: RODRIGUE\_G

Requester: Curtis Musson

Priority: 3

850-245-8453

2600 Blair Stone Rd

Tallahassee, FL 32399

Attn: Curtis Musson

Comments:

No preservatives needed.

Group A: Nutrients, Metals, Tracers, Q-PSNP-TQ

Group B: SCI, Algae\_ID

Packing Notes:

No FedEx labels

No Trash Bags

Requested Analyses:

**Bottle Group: A**

**# of Sites: 1**

Container ID: P-1L

Qty: 1 Preservation: ICE

Lot # 00073319

Description: Plastic Bottle 1L

**Analysis**

ALKALINITY

TURBIDITY

W-CL-IC

W-COLOR

W-F

W-SO4-IC

W-TDS

W-TSS

**Description**

Alkalinity in aqueous matrices as mg CaCO3/L

Turbidity in aqueous matrices

Chloride in aqueous matrices

True Color measured at 450 nm

Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)

Sulfate in aqueous matrices

Total Dissolved Solids in aqueous matrices

Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample

Container ID: BP-1L

Qty: 1 Preservation: ICE

Lot # 1233955

Description: Brown Plastic Bottle 1L

**Analysis**

CHLSUITE-W

**Description**

Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry

Container ID: P-250ML-WO-THI

Qty: 1 Preservation: ICE

Lot #

6A20-TN  
6A20-TN

Description: ~~250 ml Sterilized no tablet~~

Reglaved  
with 2  
120 orange  
caps

Analysis

ECOLI-18QT

Description

Escherichia coli by Colilert 18 Quanti-Tray method - non-chlorinated water systems

Container ID: BG-500ML

Qty: 1 Preservation: ICE

Lot #

00071791

Description: Brown Glass Bottle 500ML

Affix BLUE dot to container.

Analysis

W-E8321-DI

W-E8321-MS

Description

Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS

Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS

Container ID: P-500ML

Qty: 1 Preservation: HNO3

Lot #

00073297

Description: Plastic Bottle 500 mL

Affix RED nitric acid dot to container.

Analysis

W-ICP

W-ICPMS

Description

Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects

Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects

Container ID: P-500ML

Qty: 1 Preservation: ICE And H2SO4

Lot #

00073297

Description: Plastic Bottle 500 mL

Affix YELLOW sulfuric acid dot to container.

Analysis

W-NH3

W-NO2NO3

W-S-A-TP

W-TKN

W-TOC

Description

Ammonia in aqueous matrices as mg N/L

Nitrite/Nitrate in aqueous matrices as mg N/L

Total Phosphorus in aqueous matrices as mg P/L

Total Kjeldahl Nitrogen in aqueous matrices

Nonpurgeable Organic Carbon in aqueous matrices

Container ID: P-125ML

Qty: 1 Preservation: FILTER-ICE

Lot #

00072954

Description: Plastic Bottle 125 mL

Analysis

W-PO4-F

Description

Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L

Container ID: BG-1L

Qty: 4 Preservation: ICE

Lot # 00073521

Description: Brown Glass Bottle 1L

Affix BLUE dot to container.

Analysis

W-PSNP-TQ

Description

Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS

Bottle Group: B

# of Sites: 1

Container ID: PT-50ML

Qty: 1 Preservation: ICE

Lot # 03775003

Description: Plastic Tube 50 mL

Analysis

ALGAL\_ID

Description

Qualitative assessment of algal taxa present without counts

Container ID: PJ-2L

Qty: 2 Preservation: Formalin

Lot # Biowash

Description: Plastic Jar 2 L

Analysis

MI-FW-QLDC

Description

No. Taxa of FW macroinverts, qual samp, 20 dipnets.

Cooler Packed By: G.R.

Number of Coolers: 1

Date: 2/20/19

Kit must also include:

- ☒ Field Sheets
- ☒ Temperature Control Bottle
- ☒ FedEx Bills, if applicable
- ☒ Plastic Bags/Zip Ties
- ☒ Acid Labels (sets of 24)

If Preservation Included:

|          |           |             |
|----------|-----------|-------------|
| ID _____ | Exp _____ | Lot # _____ |
| ID _____ | Exp _____ | Lot # _____ |
| ID _____ | Exp _____ | Lot # _____ |
| ID _____ | Exp _____ | Lot # _____ |
| ID _____ | Exp _____ | Lot # _____ |

PLEASE RETURN ALL COOLERS FOR RQ-2019-02-25-07