



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2017

A-KIT

PAGE 1 OF 1

Data Qualified?

Yes / No

STORET Station Name: BLACKWATER CREEK

Date: 11-6-17

(mm/dd/yyyy)

STORET Station ID: G2SW0019

WBID: 14BZ

Latitude: 28.1398 N

(Decimal Degrees)

County: HILLS RQ: 2017-11-06-33

ORG ID: 21FLTPA

Longitude: 82.1427 W

(Decimal Degrees)

Receiving Body of Water:

Field ID: G2SW0019

| Sampling Team Members |  | WQ Measurements                     | Sample Collection                   | Documentation                       | Preservation                        | Preservation Check                  |
|-----------------------|--|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| <u>INAY ASHTON</u>    |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <u>LAMAR BARTON</u>   |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

| Sampling Equipment                                   |                                                                 |
|------------------------------------------------------|-----------------------------------------------------------------|
| <input checked="" type="checkbox"/> Sample Container | <input type="checkbox"/> Van Dorn <input type="checkbox"/> Pole |
| <input type="checkbox"/> Carboy                      | <input type="checkbox"/> Syringe                                |
| <input type="checkbox"/> Dipper                      | <input type="checkbox"/> Other                                  |
| Equipment ID                                         |                                                                 |
| Collection Method                                    |                                                                 |
| <input checked="" type="checkbox"/> Wading           | <input type="checkbox"/> Via Boat                               |
| <input type="checkbox"/> From Shore                  | <input type="checkbox"/> Canoe/Kayak                            |
| <input type="checkbox"/> Other (note below)          | <input type="checkbox"/> Electric Motor                         |
|                                                      | <input type="checkbox"/> Gasoline Motor                         |

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

Matrix: Fresh / Marine / DI

Meter ID# LIL JON

Photos: Yes / No

Tide Falling: Yes / No / NA

| Time Zone | Time | Sample Depth (m) | Total Depth (m) | DO (mg/L) | DO (%SAT) | pH  | Salinity (ppt) | Secchi Disk (m) | Sp COND (µmhos/cm) | Temp. (C°) |
|-----------|------|------------------|-----------------|-----------|-----------|-----|----------------|-----------------|--------------------|------------|
| EST       | 1100 | 0.3              |                 |           |           |     |                | 0.4             |                    | 22.0       |
| CEN       |      |                  | 0.4             | 7.1       | BZ        | 6.9 | 0.18           | "S"             | 3BZ                |            |

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

SBIO ID Numbers: SBIO-ID: 78243 RPS-ID: 8924 Macrophyte-ID: LIMS#:

| Parameter Suite             | Parameter Methods                                                                                                                                                                                                      | Preservation                                                                      | Acid 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 |           |            | <input checked="" type="checkbox"/> <2 |
| Metals                      | <input type="checkbox"/> W-ICPMS <input type="checkbox"/> W-ICP                                                                                                                                                        | <input type="checkbox"/> Ice <input type="checkbox"/> HNO2                        |           |            | <input type="checkbox"/> <2            |
| Filtered Nutrients          | <input checked="" type="checkbox"/> W-PO4-F <input 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-CL-IC / W-COLOR / W-SO4-IC / W-TDS                                                                                                        | <input checked="" type="checkbox"/> Ice                                           |           |            |                                        |
| Physical/Aggregate (Marine) | <input type="checkbox"/> Alkalinity / W-F / W-TSS / TURBIDITY                                                                                                                                                          | <input type="checkbox"/> Ice                                                      |           |            |                                        |
| Macroinvertebrates          | <input type="checkbox"/> MI-FW-QLDC                                                                                                                                                                                    | <input 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"/> Enterococcus <input type="checkbox"/> PCR-FILTER                                                                   | <input type="checkbox"/> Ice                                                      |           |            |                                        |
| Tracers                     | <input type="checkbox"/> W-SUC-AA-R <input type="checkbox"/> W-UHERB-AA                                                                                                                                                | <input type="checkbox"/> Ice                                                      |           |            |                                        |
| Pesticides                  | <input type="checkbox"/> W-PSNP-TQ <input type="checkbox"/> W-AHERB-AA <input type="checkbox"/> W-PYR-AA-R<br><input type="checkbox"/> W-PCL-SQ-R <input type="checkbox"/> W-UHERB-AA <input type="checkbox"/> W-GLYPH | <input type="checkbox"/> Ice<br><input type="checkbox"/> Other                    |           |            |                                        |
| Flow                        | "J" Quality Flow                                                                                                                                                                                                       |                                                                                   |           |            |                                        |

Notes: RQ-2017-11-06-33

Date: 11-06-2017

Time:

Field ID

G2SW0019

STORET

Blackwater Crk

G2SW0019

Signature:

Date:

11-6-17

Field Parameters Entered into LIMS: SM 03/02/2018

Field Parameters QC in LIMS: SM 03/14/2018 SM 03/23/2018

Date Migrated to STORET: SM 04/03/2018 ID 3300

Field Sheets Scanned/Saved: VRP 6/18/18

DEP-SOP-001/01: Form FD 9000-5  
STATE OF FLORIDA, DEPARTMENT OF ENVIRONMENTAL PROTECTION  
STREAM/RIVER HABITAT ASSESSMENT FIELD SHEET

|                               |                      |                                             |                                 |                                |
|-------------------------------|----------------------|---------------------------------------------|---------------------------------|--------------------------------|
| SUBMITTING AGENCY CODE: _____ |                      | STORET STATION NUMBER: <u>G2SW0019</u>      | DATE (MM/DD/YY): <u>11-6-17</u> | RECEIVING BODY OF WATER: _____ |
| SUBMITTING AGENCY NAME: _____ |                      |                                             |                                 |                                |
| REMARKS: _____                | COUNTY: <u>HILLS</u> | LOCATION: <u>HILLS CO., BURNWATER CREEK</u> | FIELD ID/NAME: <u>G2SW0019</u>  |                                |

| Habitat Parameter                                                                                                   | Optimal                                                                                                                                                                                                                   | Suboptimal                                                                                                                                                              | Marginal                                                                                                                                          | Poor                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Primary Habitat Components                                                                                          | Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock]                                                                                              | Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags)                                                      | Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed                                               | One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered                                         |
| Substrate Diversity <u>15</u>                                                                                       | 20 19 18 17 16                                                                                                                                                                                                            | <u>15</u> 14 13 12 11                                                                                                                                                   | 10 9 8 7 6                                                                                                                                        | 5 4 3 2 1                                                                                                                                  |
| Substrate Availability <u>20</u>                                                                                    | Greater than 30% major productive habitat present at site<br><u>20</u> 19 18 17 16                                                                                                                                        | 16% to 30% major productive habitat, by aerial extent<br>15 14 13 12 11                                                                                                 | 6% to 15% major productive habitat<br>10 9 8 7 6                                                                                                  | Less than 5% major productive habitat<br>5 4 3 2 1                                                                                         |
| Water Velocity <u>10</u>                                                                                            | 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><u>10</u> 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 <u>18</u><br>.....<br>Primary Score <u>63</u>                                                    | Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae.<br>20 19 <u>18</u> 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 11                                       | 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 <u>10</u>                                                 | 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.<br>15 14 13 12 11                                          | Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area.<br><u>10</u> 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 <u>8</u><br>Left Bank <u>8</u>                                                         | Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the root zone with few raw, eroded areas.<br>10 9                                                            | Only meets 2 of the 3 requirements for optimal bank stability.<br><u>8</u> 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 <u>10</u><br>Left Bank <u>10</u>                                           | Width of vegetation greater than 18 m<br>10 9                                                                                                                                                                             | Width of vegetation >12 to 18m<br>8 7 6                                                                                                                                 | Width of vegetation 6 to 12 m. human activities close to system<br>5 4                                                                            | Less than 6 m of buffer zone due to intensive human activities<br>3 2 1                                                                    |
| Riparian Zone Vegetation Quality<br>Right Bank <u>9</u><br>Left Bank <u>9</u><br>.....<br>Secondary Score <u>64</u> | Over 80% of riparian surfaces consist of normal, expected plant community for given sunlight & habitat conditions (e.g., native plants; tree, shrub, and forbs represented, if appropriate). Minimal disturbance.<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         |

127 TOTAL SCORE

|                      |                                             |                               |
|----------------------|---------------------------------------------|-------------------------------|
| Date: <u>11-6-17</u> | Analyst: <u>Shay Abitow, Laurel Brainer</u> | Signature: <u>[Signature]</u> |
|----------------------|---------------------------------------------|-------------------------------|

DEP-SOP-001/01: Form FD 9000-3 (9/19/12)  
**PHYSICAL/CHEMICAL CHARACTERIZATION FIELD SHEET**

SAMPLE ID 78243 ORG ID \_\_\_\_\_ LATITUDE \_\_\_\_\_  
 COUNTY Hills STORET # 625W0019 LONGITUDE \_\_\_\_\_  
 DATE 11-6-17 TIME 1100 SAMPLING AGENCY FOLS  
 SITE NAME BLACKWATER CREEK  
 FIELD ID/NAME 625W0019 RECEIVING BODY OF WATER \_\_\_\_\_

**RIPARIAN ZONE / STREAM FEATURES**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  |                                                                                                                                                                                                              |  |  |                                                                                |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--------------------------------------------------------------------------------|--|
| <b>PREDOMINANT LAND-USE IN WATERSHED</b> (specify relative percent in each category):<br>Forest/Natural <input type="checkbox"/> Silviculture <input type="checkbox"/> Field/Pasture <input type="checkbox"/> Agricultural <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industry <input type="checkbox"/> Other (Specify) <input type="checkbox"/><br><u>90</u> <input type="checkbox"/> <u>10</u> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |  |  |  |                                                                                                                                                                                                              |  |  | <b>Landscape Development Intensity Index (LDI)</b><br><input type="checkbox"/> |  |
| 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 type="checkbox"/> No evidence <input type="checkbox"/> Slight <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy                                                                                                                                                                                                                                            |  |  |  | <b>Typical Width (m) Depth (m)/Velocity (m/sec) Transect</b><br>_____ m wide <u>12</u> m wide<br>_____ m/s <u>0.1</u> m/s _____ m/s<br>_____ m deep <u>0.4</u> m deep _____ m deep                           |  |  |                                                                                |  |
| <b>Width of Riparian Vegetation (m) on Each Buffer Side</b><br>Left Bank: <u>718m</u> Right Bank: <u>718m</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |  | <b>Hydrologic Modification Score</b> (per FT 3101) <input type="checkbox"/>                                                                                                                                  |  |  |                                                                                |  |
| <b>High Water Mark:</b> <u>1.0</u> + <u>0.4</u> = <u>1.4</u><br>(m) (above present water level) (present depth) (above bed)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  | <b>Artificially Impounded</b><br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br><u>DAM UPSTREAM</u>                                                                                  |  |  |                                                                                |  |
| <b>Artificially</b> <input type="checkbox"/> No <input type="checkbox"/> Mostly recovered, more sinuous<br><b>Channelized:</b> <input checked="" type="checkbox"/> Some recovery <input type="checkbox"/> Recent, severe                                                                                                                                                                                                                                                                                                                                                                                      |  |  |  | <b>Canopy Cover %</b> <input type="checkbox"/> Open <input type="checkbox"/> Lightly Shaded (11-45%)<br><input checked="" 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 checked="" type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/><br>Silt Smothering: None <input type="checkbox"/> Slight <input checked="" 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 type="checkbox"/> SCI <input checked="" type="checkbox"/> RPS <input checked="" type="checkbox"/> LVS<br><input type="checkbox"/> LCI <input type="checkbox"/> BioRecon<br>% Coverage <b>INVERT</b> <b>PERI</b><br># Times # Times<br>Sampled Sampled                                                                                                                                                                                                                                                                          |  |                                                                                                                                                                                                                                                                   | <b>WATER QUALITY</b><br>Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M)<br>Top: <u>0.3</u> <u>22.0</u> <u>6.9</u> <u>7.1</u> <u>82</u> <u>382</u> <u>0.18</u> <u>0.4</u><br>Mid: _____<br>Bottom: _____<br>Meter ID: <u>LIL JON</u> <u>0.4</u>                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| Woody Debris (Snags) <u>1.0</u><br>Undercut Banks / Roots <u>2</u><br>Leaf Packs or Mat _____<br>Aquatic Vegetation _____<br>Rock or Shell Rubble.. <u>75</u><br>Sand _____<br>Mud / Muck / Silt _____<br>Other _____<br>Other _____                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                                                                                                                                                                   | <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"/><br>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: _____ Exp: _____<br>Algae Sample Taken? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>Sample Preserved? <input type="checkbox"/> Yes <input type="checkbox"/> No<br>Lot Number: _____ Exp: _____ |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| <b>ABUNDANCE</b><br>Absent Rare Common Abundant<br>Periphyton: <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br>Fish: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br>Aquatic Plants: <input checked="" type="checkbox"/> <input 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 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"/><br>Color Tannic <input checked="" type="checkbox"/> Green (Algae) <input type="checkbox"/><br>Clear <input type="checkbox"/> Other (Specify) <input type="checkbox"/><br>Clarity Clear <input checked="" type="checkbox"/> Slightly Turbid <input type="checkbox"/><br>Turbid <input type="checkbox"/> Opaque <input type="checkbox"/>                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| <b>System Type:</b> Stream <input checked="" type="checkbox"/> Lake <input type="checkbox"/> Wetland <input type="checkbox"/> Estuary <input type="checkbox"/> Other (Specify) <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                                                                                                                                                                   | <b>WEATHER CONDITIONS / NOTES:</b><br>_____<br>_____<br><input type="checkbox"/> The antecedent hydrologic conditions have been met to my best knowledge.                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |

**SAMPLING TEAM**

**SIGNATURE:**

**DATE:**

Shay Asikun, LARUE BRETHER

July 2

11-6-17

# Stream/River Habitat Sketch Sheet, Form FD 9000-4 (March07, 2013)

Length of grid represents 100 m of stream (not linear meters).

(Horizontal scale is double vertical scale, draw proportionately).

L

R

100

Sl.

%

Armor

90

Sl.

%

Armor

80

Sl.

%

Armor

70

Sl.

%

Armor

60

Sl.

%

Armor

50

Sl.

%

Armor

40

Sl.

%

Armor

30

Sl.

%

Armor

20

Sl.

%

Armor

10

Sl.

%

Armor +

0

$S = 1m^2$  Root = 1  
Rock = 90

$S = 1m^2$  Root = 1  
Rock = 90

$S = 1m^2$  Root = 1  
Rock = 90

Roots = 1  
Rock = 90

Roots = 1m  
Rock = 90

Roots = 2m  
Rock = 90

Rock = 90  
Roots = 4m

Rock = 90m  
Roots = 4m

$S = 90m^2$   
 $S = 15$   
Roots = 3m

$S = 0$  90  
Rock = 100m  
Roots = 1.5m

$S = 1m^2$   
 $S = 4m$   
Roots = 100m

Downstream

12m wide

Location: WATER CREEK

Date: 11-6-17

Samplers: J. Hutton  
L. Barker

Substrates: Code key, draw proportionate habitat abundance.



Snags

%

1



Roots/undercut banks

2



Leaf Packs (or mats)



Macrophytes



Rocks

75



Total observed

70



Pools Range expected

YES

Velocity measured at meter mark. 0.1 m/s

WQ & chemistry taken at 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.

| 1 sec per 1 m | 1m/s | sec | m/s   |
|---------------|------|-----|-------|
| 2             | 0.5  | 12  | 0.08  |
| 3             | 0.33 | 13  | 0.076 |
| 4             | 0.25 | 14  | 0.071 |
| 5             | 0.2  | 15  | 0.066 |
| 6             | 0.16 | 16  | 0.062 |
| 7             | 0.14 | 17  | 0.058 |
| 8             | 0.12 | 18  | 0.055 |
| 9             | 0.11 | 19  | 0.052 |
| 10            | 0.1  | 20  | 0.052 |
| 11            | 0.09 | 21  | 0.047 |
| 22            | 0.45 | NO  | FLOW  |

| Prod. hab    | 1  | 2 | 3 | 4 | 5 |
|--------------|----|---|---|---|---|
| Sweeps (Maj) | 10 | 7 | 5 | 4 | 3 |
| Sweeps (Min) | 10 | 6 | 5 | 4 | 5 |

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.

[illegible]

# DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Blackwater Creek County: Harris Date: 11-6-17 Investigators: Judy Ashton

| 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                          | N                                |           |              |              | 2                          | N                                |           |              |
|              | 3                          | N                                |           |              |              | 3                          | N                                |           |              |
|              | 4                          |                                  |           |              |              | 4                          |                                  |           |              |
|              | 5                          |                                  |           | 90           |              | 5                          |                                  |           | 90           |
|              | 6                          |                                  |           |              |              | 6                          |                                  |           |              |
|              | 7                          |                                  |           |              |              | 7                          |                                  |           |              |
|              | 8                          |                                  |           |              |              | 8                          |                                  |           |              |
|              | 9                          |                                  |           |              |              | 9                          |                                  |           |              |
| 10           | 1                          |                                  |           |              | 70           | 1                          |                                  |           |              |
|              | 2                          |                                  |           |              |              | 2                          |                                  |           |              |
|              | 3                          |                                  |           |              |              | 3                          |                                  |           |              |
|              | 4                          |                                  |           |              |              | 4                          |                                  |           |              |
|              | 5                          |                                  |           | 95           |              | 5                          |                                  |           | 95           |
|              | 6                          |                                  |           |              |              | 6                          |                                  |           |              |
|              | 7                          |                                  |           |              |              | 7                          |                                  |           |              |
|              | 8                          |                                  |           |              |              | 8                          |                                  |           |              |
|              | 9                          |                                  |           |              |              | 9                          |                                  |           |              |
| 20           | 1                          |                                  |           |              | 80           | 1                          |                                  |           |              |
|              | 2                          |                                  |           |              |              | 2                          |                                  |           |              |
|              | 3                          |                                  |           |              |              | 3                          |                                  |           |              |
|              | 4                          |                                  |           |              |              | 4                          |                                  |           |              |
|              | 5                          |                                  |           | 90           |              | 5                          |                                  |           | 95           |
|              | 6                          |                                  |           |              |              | 6                          |                                  |           |              |
|              | 7                          |                                  |           |              |              | 7                          |                                  |           |              |
|              | 8                          |                                  |           |              |              | 8                          |                                  |           |              |
|              | 9                          |                                  |           |              |              | 9                          |                                  |           |              |
| 30           | 1                          |                                  |           |              | 90           | 1                          |                                  |           |              |
|              | 2                          |                                  |           |              |              | 2                          |                                  |           |              |
|              | 3                          |                                  |           |              |              | 3                          |                                  |           |              |
|              | 4                          |                                  |           |              |              | 4                          |                                  |           |              |
|              | 5                          |                                  |           | 90           |              | 5                          |                                  |           | 95           |
|              | 6                          |                                  |           |              |              | 6                          |                                  |           |              |
|              | 7                          |                                  |           |              |              | 7                          |                                  |           |              |
|              | 8                          |                                  |           |              |              | 8                          |                                  |           |              |
|              | 9                          |                                  |           |              |              | 9                          |                                  |           |              |
| 40           | 1                          |                                  |           |              | 100          | 1                          |                                  |           |              |
|              | 2                          |                                  |           |              |              | 2                          |                                  |           |              |
|              | 3                          |                                  |           |              |              | 3                          |                                  |           |              |
|              | 4                          |                                  |           |              |              | 4                          |                                  |           |              |
|              | 5                          |                                  |           | 85           |              | 5                          |                                  |           | 95           |
|              | 6                          |                                  |           |              |              | 6                          |                                  |           |              |
|              | 7                          |                                  |           |              |              | 7                          |                                  |           |              |
|              | 8                          |                                  |           |              |              | 8                          |                                  |           |              |
|              | 9                          |                                  |           |              |              | 9                          |                                  |           |              |
| 50           | 1                          |                                  |           |              |              | 1                          |                                  |           |              |
|              | 2                          |                                  |           |              |              | 2                          |                                  |           |              |
|              | 3                          |                                  |           |              |              | 3                          |                                  |           |              |
|              | 4                          |                                  |           |              |              | 4                          |                                  |           |              |
|              | 5                          |                                  |           | 95           |              | 5                          |                                  |           |              |
|              | 6                          |                                  |           |              |              | 6                          |                                  |           |              |
|              | 7                          |                                  |           |              |              | 7                          |                                  |           |              |
|              | 8                          |                                  |           |              |              | 8                          |                                  |           |              |
|              | 9                          | V                                |           |              |              | 9                          | V                                |           |              |

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%.

STORET Station Number:  
625W0019  
8924

Secchi depth 0.4  
Estimated? NO

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

Check accompanying data collected at same site/date  
Algal mat sample ☐  
Linear Veg Survey ☒  
Habitat Assessment ☒  
SCI/Biorecon ☐  
Water sample ☒  
RQ: 2017-11-06-33

| 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                                  |