



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
STRATEGIC MONITORING PROGRAM FIELD SHEET

March 2017

PAGE 1 OF 1

Data Qualified?

Yes / No

Location/STORET Station Name: Unnamed Ditch @ 100m US of Date: 6/8/17

Madeline Ave. STORET # G5CE0092 WBID: 2666 Latitude: 29.14263

County: Volusia RQ - 2017-06-05-75 ORG ID: 2IFLEN Longitude: -81.04497

Receiving Body of Water: \_\_\_\_\_ Field ID: G5CE0092

| Sampling Team Members                                            |             | WQ Measurements    | Sample Collection | Documentation | Preservation | Preservation Check | Sampling Equipment                                   |                                             |                               |             |
|------------------------------------------------------------------|-------------|--------------------|-------------------|---------------|--------------|--------------------|------------------------------------------------------|---------------------------------------------|-------------------------------|-------------|
| <u>Terry Ripidan</u><br><u>Katie Williams</u>                    |             |                    |                   |               |              |                    | <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              |                               |             |
|                                                                  |             | 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 / <u>Normal</u> / High / Flooded |             |                    |                   |               |              |                    | Matrix: <u>Fresh</u> / Marine / DI                   |                                             |                               |             |
| Meter ID# <u>Betty 67</u> Photos: Yes / <u>No</u>                |             |                    |                   |               |              |                    | Tide Falling: Yes / No / <u>NA</u>                   |                                             |                               |             |
| 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°)  |
| <u>EST</u>                                                       | <u>1115</u> | <u>0.3</u>         | <u>0.5</u>        | <u>1.1</u>    | <u>13</u>    | <u>6.9</u>         | <u>0.26</u>                                          | <u>0.5(s)</u>                               | <u>536</u>                    | <u>24.5</u> |
| CEN                                                              |             |                    |                   |               |              |                    |                                                      |                                             |                               |             |

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

SBIO ID Numbers: SBIO-ID: 77671 RPS-ID: 8707 Macrophyte-ID: 10504 LIMS#: 1905011

| 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"/> HNO3                        |           |            | <input 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-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 type="checkbox"/> E Coli <input type="checkbox"/> F Coli <input type="checkbox"/> Enterococci <input type="checkbox"/> qPCR           | <input type="checkbox"/> Ice                                                      |           |            |                                        |
| Tracers                     | <input type="checkbox"/> W-SUC-AA-R <input type="checkbox"/> W-UHERB-AA <input type="checkbox"/> W-AHERB-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                                   | <input type="checkbox"/> Ice                                                      |           |            |                                        |
|                             | <input type="checkbox"/> W-PCL-SQ-R <input type="checkbox"/> W-UHERB-AA <input type="checkbox"/> W-GLYPH <input type="checkbox"/> W-SUC-AA-R | <input type="checkbox"/> Other                                                    |           |            |                                        |

Contains  
1:1  
Sulfuric Acid  
SA - 7093010  
EXP: 04/03/18  
Warning!  
See SDS

Notes: \_\_\_\_\_

Signature: K Williams Date: 6/8/17

Field Parameters Entered into LIMS: KWW 6/12/17 Field Parameters QC in LIMS: 72 6/24/17

Date Migrated to STORET: 6/10/17 Field Sheets Scanned/Saved: \_\_\_\_\_

Unnamed Ditch @ 100m US of Madeline Ave. G5CE0092

RQ-2017-06-05-75 Date: 06/08/17

Field ID ↑ STORET ↓

G5CE0092

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

SAMPLE ID \_\_\_\_\_ ORG ID 21FCEN LATITUDE 29.14263  
 COUNTY Volusia STORET # 6500092 LONGITUDE -81.04497  
 DATE 6/8/17 TIME \_\_\_\_\_ SAMPLING AGENCY 21FCEN  
 SITE NAME Unnamed Ditch 2664  
 FIELD ID/NAME \_\_\_\_\_ 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>10</u> <u>90</u> |  |  |  |                                                                                                                                                                                                              |  |                                                                                                                                                                                             |  | <b>Landscape Development Intensity Index (LDI)</b><br><input type="checkbox"/> |  |
| Local Watershed Erosion (select one): <input 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 type="checkbox"/> Moderate <input type="checkbox"/> Heavy                                                                                   |  |  |  |                                                                                                                                                                                                              |  | <b>Typical Width (m) Depth (m)/Velocity (m/sec) Transect</b><br><u>5</u> m wide<br><u>0.08</u> m/s <u>0.09</u> m/s <u>0.05</u> m/s<br><u>0.3</u> m deep <u>0.5</u> m deep <u>0.3</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) <input type="checkbox"/>                                                                                                                                  |  |                                                                                                                                                                                             |  |                                                                                |  |
| <b>High Water Mark:</b> <u>0.5</u> + <u>0.5</u> = <u>1</u><br>(m) (above present water level) (present depth) (above bed)                                                                                                                                                                                                                                                                                                      |  |  |  | <b>Artificially Impounded</b><br><input type="checkbox"/> Yes <input type="checkbox"/> No ?                                                                                                                  |  |                                                                                                                                                                                             |  |                                                                                |  |
| <b>Artificially</b> <input type="checkbox"/> No <input type="checkbox"/> Mostly recovered, more sinuous<br><b>Channelized:</b> <input type="checkbox"/> Some recovery <input checked="" 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 type="checkbox"/> Normal <input type="checkbox"/> Sewage <input type="checkbox"/> Petroleum<br><input type="checkbox"/> Chemical <input checked="" 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 type="checkbox"/> Moderate <input checked="" type="checkbox"/> Severe <input type="checkbox"/><br>Algae Smothering: None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input checked="" 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 <input type="checkbox"/> INVERT # Times Sampled <input type="checkbox"/> PERI # Times Sampled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  | <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>0.3</u> <u>24.5</u> <u>6.9</u> <u>1.1</u> <u>13</u> <u>536</u> <u>0.26</u> <input type="checkbox"/><br>Mid: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> VO<br>Bottom: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br>Meter ID: <u>Bathy 67</u> <u>0.5</u> |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
| Woody Debris (Snags) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br>Undercut Banks / Roots <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br>Leaf Packs or Mat ..... <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br>Aquatic Vegetation ..... <u>20</u> <input type="checkbox"/> <input type="checkbox"/><br>Rock or Shell Rubble.. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br>Sand..... <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br>Mud / Muck / Silt ..... <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br>Other ..... <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br>Other ..... <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: _____ Exp: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |  | <b>Color</b> Tannic <input type="checkbox"/> Green (Algae) <input type="checkbox"/><br>Clear <input checked="" type="checkbox"/> Other (Specify) <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
| 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>Clarity</b> Clear <input checked="" type="checkbox"/> Slightly Turbid <input type="checkbox"/><br>Turbid <input type="checkbox"/> Opaque <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
| <b>ABUNDANCE</b><br>Not Obs. Rare Common Abundant<br>Periphyton: <input type="checkbox"/> <input type="checkbox"/> <input checked="" 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 type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/><br>Iron/Sulfur Bacteria: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>                                                                                                                                                                                                                                                                                                         |  |  | <b>System Type:</b> Stream <input type="checkbox"/> Lake <input type="checkbox"/> Wetland <input type="checkbox"/> Estuary <input type="checkbox"/> Other (Specify) <input checked="" type="checkbox"/> <u>canal</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
| <b>AMBIENT FIELD CONDITIONS / NOTES:</b><br><u>overcast, lots of recent rain</u><br><input type="checkbox"/> The antecedent hydrologic conditions have been met to my best knowledge.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |

SAMPLING TEAM Katie Williams, Terry Rordan SIGNATURE: K Williams DATE: 6/8/17

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

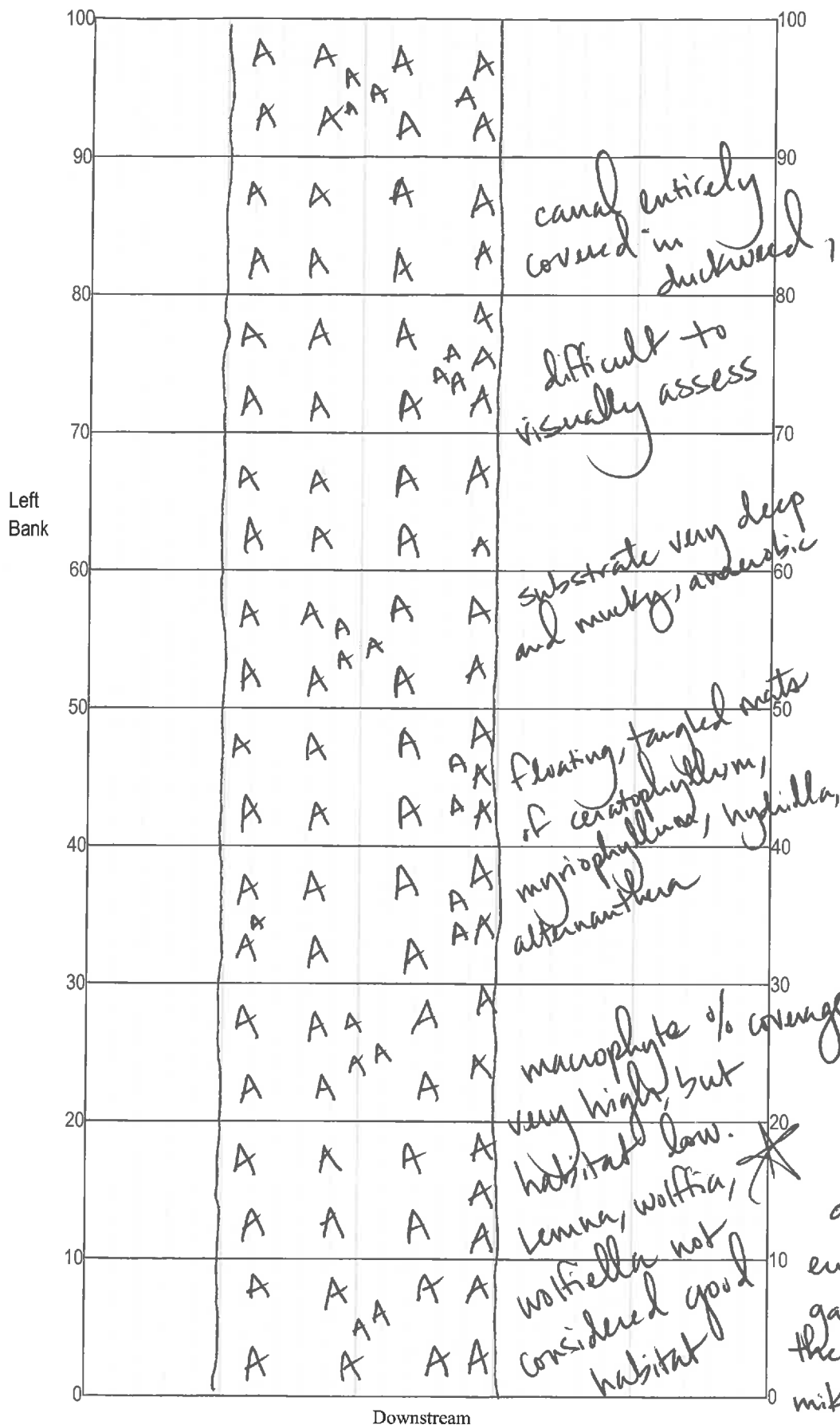
|                  |  |                        |                  |                          |
|------------------|--|------------------------|------------------|--------------------------|
| SAMPLING AGENCY: |  | STORET STATION NUMBER: | DATE (MM/DD/YY): | RECEIVING BODY OF WATER: |
| REMARKS:         |  | COUNTY:                | LOCATION:        | FIELD ID/NAME:           |
|                  |  | Volusia                | Unnamed Ditch    | GSCE0092                 |

| 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>3</u>                                                    | 20 19 18 17 16                                                                                                                                                                                                    | 15 14 13 12 11                                                                                                                                                 | 10 9 8 7 6                                                                                                                                 | 5 4 <u>3</u> 2 1                                                                                                              |
| Substrate Availability <u>13</u>                                                | Greater than 30% major productive habitat present at site<br>20 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>9</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> <u>9</u> 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>3</u><br>-----<br>Primary Score <u>28</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 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 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                                                    | Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks.                                                                                                   | Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered.                                                   | Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area.                        | Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks. |
| Artificial Channelization <u>2</u>                                              | 20 19 18 17 16                                                                                                                                                                                                    | 15 14 13 12 11                                                                                                                                                 | 10 9 8 7 6                                                                                                                                 | 5 4 3 <u>2</u> 1                                                                                                              |
| Bank Stability                                                                  | Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the root zone with few raw, eroded areas.                                                            | Only meets 2 of the 3 requirements for optimal bank stability.                                                                                                 | Only meets 1 of the 3 requirements for optimal bank stability.                                                                             | Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas.                   |
| Right Bank <u>6</u><br>Left Bank <u>6</u>                                       | 10 9                                                                                                                                                                                                              | 8 7 6                                                                                                                                                          | 5 4                                                                                                                                        | 3 2 1                                                                                                                         |
| Riparian Buffer Zone Width                                                      | Width of vegetation greater than 18 m                                                                                                                                                                             | Width of vegetation >12 to 18m                                                                                                                                 | Width of vegetation 6 to 12 m. human activities close to system                                                                            | Less than 6 m of buffer zone due to intensive human activities                                                                |
| Right Bank <u>9</u><br>Left Bank <u>10</u>                                      | 10 9                                                                                                                                                                                                              | 8 7 6                                                                                                                                                          | 5 4                                                                                                                                        | 3 2 1                                                                                                                         |
| Riparian Zone Vegetation Quality                                                | Over 80% of riparian surfaces consist of normal, expected plant community for given sunlight & habitat conditions (e.g., native plants; tree, shrub, and forbs represented, if appropriate). Minimal disturbance. | >50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed. | 25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious. | Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions).     |
| Right Bank <u>8</u><br>Left Bank <u>8</u><br>-----<br>Secondary Score <u>49</u> | 10 9                                                                                                                                                                                                              | 8 7 6                                                                                                                                                          | 5 4                                                                                                                                        | 3 2 1                                                                                                                         |

77

TOTAL SCORE

|                     |                                |                             |
|---------------------|--------------------------------|-----------------------------|
| Date: <u>6/8/17</u> | Analyst: <u>Katie Williams</u> | Signature: <u>KWilliams</u> |
|---------------------|--------------------------------|-----------------------------|



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

Location: Unnamed Ditch  
Date: 4/8/17  
Sampler: Katie Williams

|                                                                                                                |                                                      |
|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| 100 m: Latitude _____                                                                                          | Longitude _____                                      |
| 0 m: Latitude _____                                                                                            | Longitude _____                                      |
| Substrates: Code key, draw proportionate habitat abundance. %                                                  |                                                      |
| <input type="checkbox"/> Snags                                                                                 | _____                                                |
| <input type="checkbox"/> Roots/undercut banks                                                                  | _____                                                |
| <input type="checkbox"/> Leaf Packs (or mats)                                                                  | _____                                                |
| <input checked="" type="checkbox"/> Aquatic Macrophytes                                                        | <u>20</u>                                            |
| <input type="checkbox"/> _____                                                                                 | _____                                                |
| <input type="checkbox"/> _____                                                                                 | _____                                                |
| <input type="checkbox"/> Pools                                                                                 | total # observed = _____<br># range expected = _____ |
| Average width <u>5</u> m                                                                                       |                                                      |
| Average depth _____ m                                                                                          |                                                      |
| Velocity measured at _____ meter mark.                                                                         |                                                      |
| WQ & chemistry taken at _____ meter mark.                                                                      |                                                      |
| Habitat Smothering:<br>Note areas (on map) where sand or silt is smothering substrates, limiting habitability. |                                                      |
| Bank Stability:<br>Note areas (on map) with unstable, eroding banks.                                           |                                                      |
| Riparian Buffer Width:<br>Note areas (on map) where natural vegetation is altered or eliminated.               |                                                      |

Plants observed / other notes:

acer rubrum, boehmeria,  
eupatorium, echinocloa crus  
galli, myrica, buttonbush,  
thelyptera interrupta,  
mikania, migantthemum umb.,  
melaleuca, illex cassine,  
L. octovalvis, L. pennsylvanica,  
Diodia

|                                 |                  |                        |                                |
|---------------------------------|------------------|------------------------|--------------------------------|
| Waterbody: <u>Unnamed Ditch</u> | Date: <u>6/9</u> | County: <u>Volusia</u> | Storet Number: <u>65620092</u> |
| Analyst: <u>Katie Williams</u>  | Signature: _____ |                        |                                |
| Comments: <u>see below</u>      |                  |                        |                                |

| 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 |                            |

Equal parts Lemna, Wolffia, Wolffella covering m. Mats of alternanthera,  
ceratophyllum, hydrilla, myriophyllum. Saccolapsa on side.

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

Site: Unmanned Pitch 2666

County: Volusia

Date: 5-8-17

Investigators: Terry Riordan / Katie Williams

STORET Station Number: G5CE0092

| 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                                | N         |              | 60           | 1                          | N                                | N         |              |
|              | 2                          |                                  |           |              |              | 2                          | N                                |           |              |
|              | 3                          |                                  |           |              |              | 3                          | N                                |           |              |
|              | 4                          |                                  |           |              |              | 4                          | 4                                |           |              |
|              | 5                          |                                  |           | 80           |              | 5                          | 4                                |           | 80           |
|              | 6                          |                                  |           |              |              | 6                          | N                                |           |              |
|              | 7                          |                                  |           |              |              | 7                          | N                                |           |              |
|              | 8                          |                                  |           |              |              | 8                          | 3                                |           |              |
|              | 9                          | N                                |           |              |              | 9                          | N                                |           |              |
| 10           | 1                          | N                                |           |              | 70           | 1                          | N                                |           |              |
|              | 2                          |                                  |           |              |              | 2                          | 4                                |           |              |
|              | 3                          |                                  |           |              |              | 3                          | N                                |           |              |
|              | 4                          |                                  |           | 84           |              | 4                          |                                  |           |              |
|              | 5                          |                                  |           |              |              | 5                          |                                  |           | 76           |
|              | 6                          |                                  |           |              |              | 6                          |                                  |           |              |
|              | 7                          |                                  |           |              |              | 7                          |                                  |           |              |
|              | 8                          | 3                                |           |              |              | 8                          | N                                |           |              |
|              | 9                          | N                                |           |              |              | 9                          | 3                                |           |              |
| 20           | 1                          | N                                |           |              | 80           | 1                          | N                                |           |              |
|              | 2                          | 3                                |           |              |              | 2                          | 3                                |           |              |
|              | 3                          | 3                                |           |              |              | 3                          | 3                                |           |              |
|              | 4                          | N                                |           | 44           |              | 4                          | N                                |           |              |
|              | 5                          |                                  |           |              |              | 5                          | N                                |           | 84           |
|              | 6                          |                                  |           |              |              | 6                          | 3                                |           |              |
|              | 7                          |                                  |           |              |              | 7                          | N                                |           |              |
|              | 8                          |                                  |           |              |              | 8                          | 3                                |           |              |
|              | 9                          | N                                |           |              |              | 9                          | N                                |           |              |
| 30           | 1                          | N                                |           |              | 90           | 1                          | N                                |           |              |
|              | 2                          |                                  |           |              |              | 2                          | N                                |           |              |
|              | 3                          |                                  |           |              |              | 3                          | N                                |           |              |
|              | 4                          |                                  |           |              |              | 4                          | 3                                |           |              |
|              | 5                          |                                  |           | 40           |              | 5                          | N                                |           | 76           |
|              | 6                          |                                  |           |              |              | 6                          | N                                |           |              |
|              | 7                          |                                  |           |              |              | 7                          | N                                |           |              |
|              | 8                          |                                  |           |              |              | 8                          | 4                                |           |              |
|              | 9                          | N                                |           |              |              | 9                          | N                                |           |              |
| 40           | 1                          | 4                                |           |              | 100          | 1                          | N                                |           |              |
|              | 2                          | 4                                |           |              |              | 2                          | 3                                |           |              |
|              | 3                          | N                                |           |              |              | 3                          | 3                                |           |              |
|              | 4                          |                                  |           |              |              | 4                          | N                                |           |              |
|              | 5                          |                                  |           | 84           |              | 5                          |                                  |           | 78           |
|              | 6                          |                                  |           |              |              | 6                          |                                  |           |              |
|              | 7                          |                                  |           |              |              | 7                          |                                  |           |              |
|              | 8                          |                                  |           |              |              | 8                          |                                  |           |              |
|              | 9                          | N                                |           |              |              | 9                          | N                                | N         |              |
| 50           | 1                          | N                                |           |              |              |                            |                                  |           |              |
|              | 2                          | 3                                |           |              |              |                            |                                  |           |              |
|              | 3                          | 2                                |           |              |              |                            |                                  |           |              |
|              | 4                          | 2                                |           |              |              |                            |                                  |           |              |
|              | 5                          | 2                                |           | 72           |              |                            |                                  |           |              |
|              | 6                          | 2                                |           |              |              |                            |                                  |           |              |
|              | 7                          | 2                                |           |              |              |                            |                                  |           |              |
|              | 8                          | 4                                |           |              |              |                            |                                  |           |              |
|              | 9                          | 4                                |           |              |              |                            |                                  |           |              |

Secchi depth 0.5  
Estimated? N

# points ranked 4-6 9  
total points assessed 99  
% points ranked 4-6 9

(Exclude X's)

Check accompanying data collected at same site/date.  
Algal mat sample ☐  
Linear Veg Survey ☒  
Habitat Assessment ☒  
SCI/Biorecon ☐  
Water sample ☒  
RQ-2017-06-05-75

| 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%.