



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2018

Data Qualified?

Yes / No

John's Lake Outlet @ 500m NW of Avalon Rd.(2873)

WIN Station Name:

Date: 2/8/2018

(mm/dd/yyyy)

WIN ID/ Field ID G1CE0104

WBID: 2873

Latitude: 28.53145999

(Decimal Degrees)

County: Orange, Lake

ORG ID: 21FLCEN

Longitude: -81.61369868

(Decimal Degrees)

Receiving Body of Water:

Black Lake

RQ - 2018-02-05-71

| Sampling Team Members                                                             |  | WQ Measurements                                | Sample Collection | Documentation | Preservation                            | Preservation Check | Duplicate Collection | Blank Collection                 | Sampling Equipment                                   |                                                                 |
|-----------------------------------------------------------------------------------|--|------------------------------------------------|-------------------|---------------|-----------------------------------------|--------------------|----------------------|----------------------------------|------------------------------------------------------|-----------------------------------------------------------------|
| TERRY RIORDAN                                                                     |  | ✓                                              | ✓                 | ✓             | ✓                                       | ✓                  | ✓                    | ✓                                | <input checked="" type="checkbox"/> Sample Container | <input type="checkbox"/> Van Dorn <input type="checkbox"/> Pole |
| KATIE WILLIAMS                                                                    |  |                                                |                   |               |                                         |                    |                      |                                  | <input type="checkbox"/> Carboy                      | <input checked="" type="checkbox"/> Syringe                     |
|                                                                                   |  |                                                |                   |               |                                         |                    |                      |                                  | <input type="checkbox"/> Dipper                      | <input type="checkbox"/> Other                                  |
|                                                                                   |  |                                                |                   |               |                                         |                    |                      |                                  | Depth Measured with: SECCHI DISK LINE                |                                                                 |
|                                                                                   |  |                                                |                   |               |                                         |                    |                      |                                  | Equipment ID                                         |                                                                 |
| Collection Method                                                                 |  |                                                |                   |               |                                         |                    |                      |                                  |                                                      |                                                                 |
| <input type="checkbox"/> Wading <input type="checkbox"/> Canoe/Kayak              |  |                                                |                   |               |                                         |                    |                      |                                  |                                                      |                                                                 |
| <input type="checkbox"/> From Shore <input type="checkbox"/> Electric Motor       |  |                                                |                   |               |                                         |                    |                      |                                  |                                                      |                                                                 |
| <input type="checkbox"/> Other <input checked="" type="checkbox"/> Gasoline Motor |  |                                                |                   |               |                                         |                    |                      |                                  |                                                      |                                                                 |
| Water Level: Dry/ Pooled/ Low/ <u>Normal</u> / High/ Flooded                      |  |                                                |                   |               | Meter ID# BETTY/67                      |                    |                      | Matrix: <u>Fresh</u> Marine / DI |                                                      |                                                                 |
| Photos: <u>Yes</u> / No                                                           |  | Flow: No Flow / Intertidal <u>Flowing</u> / NA |                   |               | Tide: Rising/ Falling/ Slack/ <u>NA</u> |                    |                      | Tide Times: High Low             |                                                      |                                                                 |

Field Sample

(Bracket Sample Time)

| Time Zone  | Time  | Total Depth (m) | Sample Depth (m) | Secchi Disk (m) | DO (mg/L) | DO (%SAT) | pH   | Salinity (ppt) | Sp COND (µmhos/cm) | Temp. (C°) |
|------------|-------|-----------------|------------------|-----------------|-----------|-----------|------|----------------|--------------------|------------|
| <u>EST</u> | 10:05 | 2.0             | 0.3              | 0.7             | 7.29      | 81.2      | 7.04 | 0.10           | 213                | 19.71      |
| CEN        |       |                 | 1.5              |                 | 7.78      | 84.0      | 7.15 | 0.10           | 212                | 18.96      |

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

SBIO ID Numbers: SBIO-ID: 74220 HA-ID: 15017 RPS-ID: 8907 Macrophyte-ID: 10810 LIMS#: 1966204

| Parameter Suite             | Parameter Methods                                                                                                                                                                                                                                                                          | Preservation                                                                      | Lot#      | Expiration | pH Check                               |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------|------------|----------------------------------------|
| Preserved Nutrients         | <input checked="" type="checkbox"/> W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP                                                                                                                                                                                                            | <input checked="" type="checkbox"/> Ice <input checked="" type="checkbox"/> H2SO4 | SA7275010 | 10/02/18   | <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                                           | 9743729   |            |                                        |
| 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"/> Enterococci                                                                                                                                                                            | <input checked="" type="checkbox"/> Ice                                           |           |            |                                        |
| Molecular                   | <input type="checkbox"/> PCR-FILTER <input type="checkbox"/> PCR-HF183 <input type="checkbox"/> PCR-BacR <input type="checkbox"/> PCR-GULL2 <input type="checkbox"/> PCR-GFD                                                                                                               | <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"/> W-CARB-AA <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"/> Ice <input type="checkbox"/> Other                       |           |            |                                        |

Place Preservative Sticker(s) Here  
(If Available)

# QA/QC Sample Information Duplicate

| <b>Time Zone:</b> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">EST</span> <b>CEN</b> |                                                                                                                                                                                                                                                                                               | <b>Time:</b> <u>1007</u>                                                                                   | <b>Field ID:</b> <u>G1CE0104DUP</u><br><small>(WIN ID + DUP)</small> |            |                                        |
|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|------------|----------------------------------------|
| Parameter Suite                                                                                                  | Parameter Methods                                                                                                                                                                                                                                                                             | Preservation                                                                                               | Lot#                                                                 | Expiration | pH Check                               |
| <b>Preserved Nutrients</b>                                                                                       | <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"/> H <sub>2</sub> SO <sub>4</sub> | SA7275010                                                            | 10/02/18   | <input checked="" type="checkbox"/> <2 |
| <b>Metals</b>                                                                                                    | <input type="checkbox"/> W-ICPMS <input type="checkbox"/> W-ICP                                                                                                                                                                                                                               | <input type="checkbox"/> Ice <input type="checkbox"/> HNO <sub>3</sub>                                     |                                                                      |            | <input type="checkbox"/> <2            |
| <b>Filtered Nutrients</b>                                                                                        | <input checked="" type="checkbox"/> W-PO4-F <input checked="" type="checkbox"/> Field Filtered 0.45 µm Filter                                                                                                                                                                                 | <input checked="" type="checkbox"/> Ice                                                                    | 9743729                                                              |            |                                        |
| <b>Chlorophyll</b>                                                                                               | <input type="checkbox"/> CHLSUITE-W                                                                                                                                                                                                                                                           | <input 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                                                                               |                                                                      |            |                                        |
| <b>Microbiology</b>                                                                                              | <input type="checkbox"/> E Coli <input type="checkbox"/> F Coli <input type="checkbox"/> Enterococci                                                                                                                                                                                          | <input type="checkbox"/> Ice                                                                               |                                                                      |            |                                        |
| <b>Molecular</b>                                                                                                 | <input type="checkbox"/> PCR-FILTER <input type="checkbox"/> PCR-HF183 <input type="checkbox"/> PCR-BacR <input type="checkbox"/> PCR-GULL2 <input type="checkbox"/> PCR-GFD                                                                                                                  | <input type="checkbox"/> Ice                                                                               |                                                                      |            |                                        |
| <b>Tracers</b>                                                                                                   | <input type="checkbox"/> W-SUC-AA-R <input type="checkbox"/> W-UHERB-AA <input type="checkbox"/> W-AHERB-AA                                                                                                                                                                                   | <input type="checkbox"/> Ice                                                                               |                                                                      |            |                                        |
| <b>Pesticides</b>                                                                                                | <input type="checkbox"/> W-PSNP-TQ <input type="checkbox"/> W-AHERB-AA <input type="checkbox"/> W-PYR-AA-R <input type="checkbox"/> W-CARB-AA<br><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"/> Ice<br><input type="checkbox"/> Other                                             |                                                                      |            |                                        |

## Blank

| <b>Time Zone:</b> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">EST</span> <b>CEN</b>                                |                                                                                                                                                                                                                                                                                               | <b>Time:</b> <u>1137</u>                                                                                   | <b>Field ID:</b> <u>BLANK_02082018</u><br><small>(BLANK_DDMMYYYY)</small> |            |                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|------------|----------------------------------------|
| <b>DI Source:</b> <u>WASH ROOM</u>                                                                                                              |                                                                                                                                                                                                                                                                                               | <b>Location:</b> <u>JOHN'S LAKE OUTLET</u>                                                                 |                                                                           |            |                                        |
| <input checked="" type="checkbox"/> Field Blank <input type="checkbox"/> Equipment Blank <input type="checkbox"/> Field Cleaned Equipment Blank |                                                                                                                                                                                                                                                                                               | <b>Equipment ID:</b> <u>DI #4</u>                                                                          |                                                                           |            |                                        |
| Parameter Suite                                                                                                                                 | Parameter Methods                                                                                                                                                                                                                                                                             | Preservation                                                                                               | Lot#                                                                      | Expiration | pH Check                               |
| <b>Preserved Nutrients</b>                                                                                                                      | <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"/> H <sub>2</sub> SO <sub>4</sub> | SA7275010                                                                 | 10/02/18   | <input checked="" type="checkbox"/> <2 |
| <b>Metals</b>                                                                                                                                   | <input type="checkbox"/> W-ICPMS <input type="checkbox"/> W-ICP                                                                                                                                                                                                                               | <input type="checkbox"/> Ice <input type="checkbox"/> HNO <sub>3</sub>                                     |                                                                           |            | <input type="checkbox"/> <2            |
| <b>Filtered Nutrients</b>                                                                                                                       | <input checked="" type="checkbox"/> W-PO4-F <input checked="" type="checkbox"/> Field Filtered 0.45 µm Filter                                                                                                                                                                                 | <input checked="" type="checkbox"/> Ice                                                                    | 9743729                                                                   |            |                                        |
| <b>Chlorophyll</b>                                                                                                                              | <input type="checkbox"/> CHLSUITE-W                                                                                                                                                                                                                                                           | <input 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                                                                               |                                                                           |            |                                        |
| <b>Microbiology</b>                                                                                                                             | <input type="checkbox"/> E Coli <input type="checkbox"/> F Coli <input type="checkbox"/> Enterococci                                                                                                                                                                                          | <input type="checkbox"/> Ice                                                                               |                                                                           |            |                                        |
| <b>Molecular</b>                                                                                                                                | <input type="checkbox"/> PCR-FILTER <input type="checkbox"/> PCR-HF183 <input type="checkbox"/> PCR-BacR <input type="checkbox"/> PCR-GULL2 <input type="checkbox"/> PCR-GFD                                                                                                                  | <input type="checkbox"/> Ice                                                                               |                                                                           |            |                                        |
| <b>Tracers</b>                                                                                                                                  | <input type="checkbox"/> W-SUC-AA-R <input type="checkbox"/> W-UHERB-AA <input type="checkbox"/> W-AHERB-AA                                                                                                                                                                                   | <input type="checkbox"/> Ice                                                                               |                                                                           |            |                                        |
| <b>Pesticides</b>                                                                                                                               | <input type="checkbox"/> W-PSNP-TQ <input type="checkbox"/> W-AHERB-AA <input type="checkbox"/> W-PYR-AA-R <input type="checkbox"/> W-CARB-AA<br><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                                                                             |                                                                           |            |                                        |

### Notes:

LAUNCH: Public ramp at 28.54491304 x -81.65953792

**WIN ID / Field ID →**

John's Lake Outlet  
@500m NW of Avalon  
Road (2873)



G1CE0104

**Signature:**

*[Handwritten Signature]*

**Date:**

2-8-18

Enter Field Parameters, Verify Station ID In LIMS DMT: Kmw 2/3/18  
(Initials/Date)

QC Station ID, Field Parameters In LIMS DMT: \_\_\_\_\_  
(Initials/Date)

Scan/Save Field Sheets \_\_\_\_\_ Migrate Data to WIN: \_\_\_\_\_ Verify Data In WIN: \_\_\_\_\_

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

|                  |                       |                                        |                                |                                            |
|------------------|-----------------------|----------------------------------------|--------------------------------|--------------------------------------------|
| SAMPLING AGENCY: |                       | STORET STATION NUMBER: <u>GICE0104</u> | DATE (MM/DD/YY): <u>2/8/18</u> | RECEIVING BODY OF WATER: <u>Black Lake</u> |
| REMARKS:         | COUNTY: <u>Orange</u> | LOCATION: <u>Johns Lake Outlet</u>     |                                | FIELD ID/NAME:                             |

| 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>2</u>                                                                                        | 20 19 18 17 16                                                                                                                                                                                                            | 15 14 13 12 11                                                                                                                                                          | 10 9 8 7 6                                                                                                                                        | 5 4 3 2 1                                                                                                                          |
| Substrate Availability <u>2</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>2</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>10 9 8 7 6                                                      | Max. observed at typical transect <0.05 m/sec; or spate occurring: > 1 m/sec<br><0.05 0.04 0.03 0.01 <0.01<br>5 4 3 2 1            |
| Habitat Smothering <u>4</u><br>-----<br>Primary Score <u>10</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>10</u>                                                                                 | 20 19 18 17 16                                                                                                                                                                                                            | 15 14 13 12 11                                                                                                                                                          | 10 9 8 7 6                                                                                                                                        | 5 4 3 2 1                                                                                                                          |
| Bank Stability<br>Right Bank <u>10</u><br>Left Bank <u>9</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>8 7 6                                                                                                 | Only meets 1 of the 3 requirements for optimal bank stability.<br>5 4                                                                             | Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas.<br>3 2 1               |
| Riparian Buffer Zone Width<br>Right Bank <u>9</u><br>Left Bank <u>9</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>7</u><br>Left Bank <u>7</u><br>-----<br>Secondary Score <u>60</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 |

70 TOTAL SCORE

|                     |                                |                             |
|---------------------|--------------------------------|-----------------------------|
| Date: <u>2/8/18</u> | Analyst: <u>Katie Williams</u> | Signature: <u>KWilliams</u> |
|---------------------|--------------------------------|-----------------------------|

Natural conveyance, but has been altered multiple times

|                           |                       |         |                        |
|---------------------------|-----------------------|---------|------------------------|
| Waterbody: John L. Outlet | Date: 2/5/18          | County: | Storet Number: GLE0104 |
| Analyst: Katie Williams   | Signature: K Williams |         |                        |

**Comments:**[illegible]

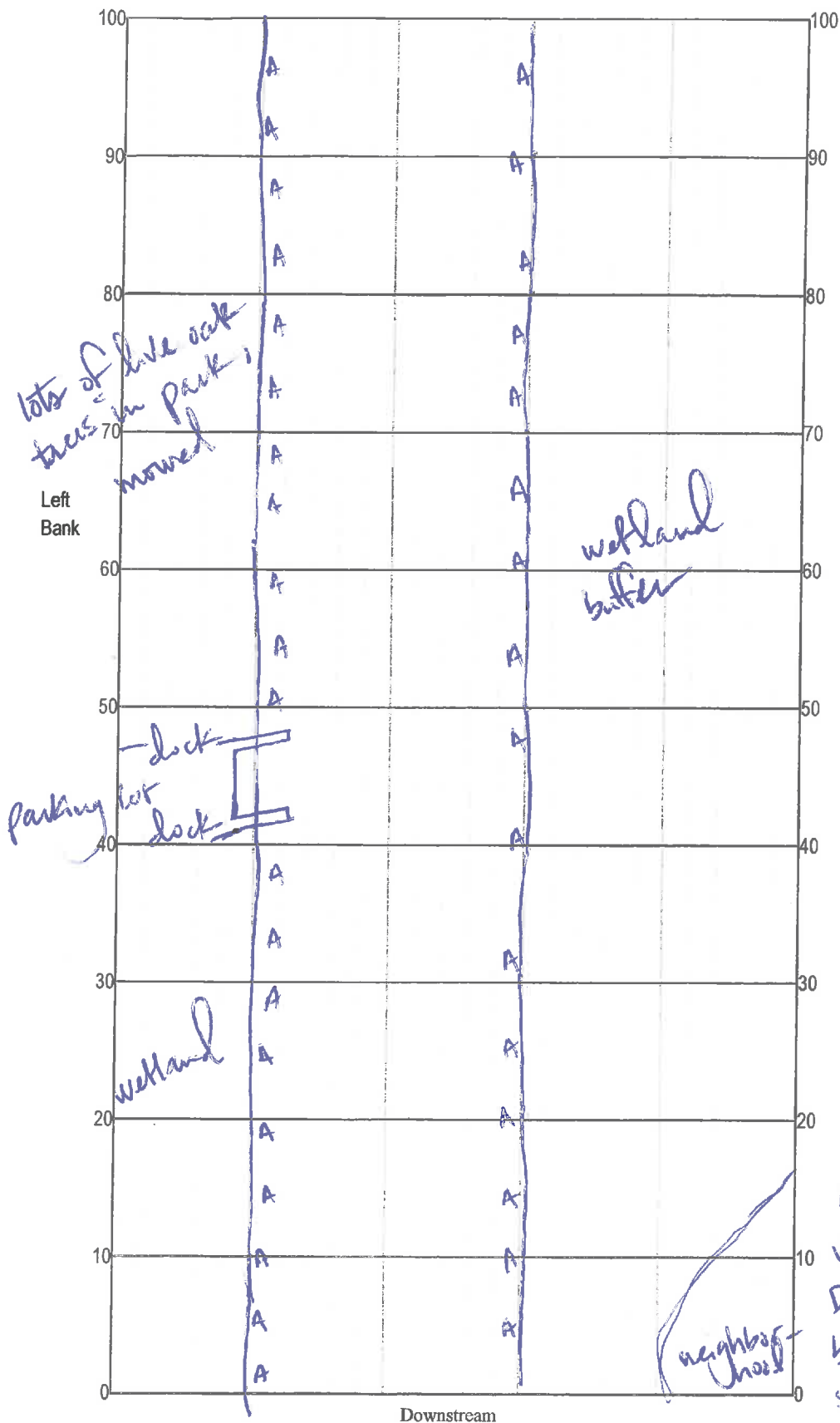
**If no Dominant or Co-Dominant were selected, indicate with "X"**

Indicate % cover macrophytes per section

[illegible]



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



Location: Johns Lk. Outlet  
 Date: 2/8/18  
 Sampler: Katie Williams

|                                                                                                                |                            |
|----------------------------------------------------------------------------------------------------------------|----------------------------|
| 100 m: Latitude _____                                                                                          | Longitude _____            |
| 0 m: Latitude _____                                                                                            | Longitude _____            |
| Substrates: Code key, draw proportionate habitat abundance. %                                                  |                            |
| <input checked="" type="checkbox"/> S                                                                          | Snags _____                |
| <input checked="" type="checkbox"/> R                                                                          | Roots/undercut banks _____ |
| <input type="checkbox"/> L                                                                                     | Leaf Packs (or mats) _____ |
| <input checked="" type="checkbox"/> A                                                                          | Aquatic Macrophytes _____  |
| <input type="checkbox"/>                                                                                       | _____                      |
| <input type="checkbox"/>                                                                                       | _____                      |
| <input type="checkbox"/>                                                                                       | total # observed = _____   |
| <input type="checkbox"/>                                                                                       | # range expected = _____   |
| Average width _____ 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:

Appears to be active vegetation management. Decent buffer both sides, but moved & missing understory on left, and

neighborhood on right approx 50m in. Also small parking lot on left. Some wetland, some improved pasture. Natural conveyance that has been widened/deepened in past.

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

SAMPLE ID \_\_\_\_\_ ORG ID 21FLCN LATITUDE \_\_\_\_\_  
 COUNTY Orange STORET # 61LE0104 LONGITUDE \_\_\_\_\_  
 DATE \_\_\_\_\_ TIME \_\_\_\_\_ SAMPLING AGENCY \_\_\_\_\_  
 SITE NAME Johns Lake Outlet  
 FIELD ID/NAME \_\_\_\_\_ RECEIVING BODY OF WATER Black Lake

## RIPARIAN ZONE / STREAM FEATURES

|                                                                                                                                                                                                                                                                                                                                                                    |  |                                                                                                                                                                                                              |  |                                                                                                                |  |  |                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------|--|--|-------------------------------------------------------------|
| <b>PREDOMINANT LAND-USE IN WATERSHED</b> (specify relative percent in each category):<br>Forest/Natural <u>30</u> Silviculture _____ Field/Pasture <u>15</u> Agricultural _____ Residential <u>50</u> Commercial _____ Industry <u>10</u> Other (Specify) <u>nursery</u>                                                                                           |  |                                                                                                                                                                                                              |  |                                                                                                                |  |  | <b>Landscape Development Intensity Index (LDI)</b><br>_____ |
| Local Watershed Erosion (select one): <input type="checkbox"/> None <input checked="" 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>20</u> m/s _____ m/s _____ m/s |  |  |                                                             |
| <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) _____                                                                                                                                                     |  | _____ m/s <u>01</u> m/s _____ m/s                                                                              |  |  |                                                             |
| <b>High Water Mark:</b> <u>0.3</u> + <u>2.0</u> = <u>2.3</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                                                                                                         |  | _____ m deep <u>2.0</u> m deep _____ m deep                                                                    |  |  |                                                             |
| <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 checked="" type="checkbox"/> Open <input type="checkbox"/> Lightly Shaded (11-45%)<br><input type="checkbox"/> Heavily Shaded <input type="checkbox"/> Moderate Shaded (46-80%) |  |                                                                                                                |  |  |                                                             |

## SEDIMENT / SUBSTRATE

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                     |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <b>Sediment Oils</b><br><input checked="" type="checkbox"/> Absent <input type="checkbox"/> Slight<br><input type="checkbox"/> Moderate <input type="checkbox"/> Profuse                                                                                                                                                                                                                                                                                                                                                                                                          |  | <b>Sediment Odors</b><br><input checked="" type="checkbox"/> Normal <input type="checkbox"/> Sew age <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 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 INVERT # Times Sampled 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>19.71</u> <u>7.04</u> <u>7.29</u> <u>81.2</u> <u>213</u> <u>010</u> <u>0.7</u><br>Mid: _____<br>Bottom: <u>1.5</u> <u>18.96</u> <u>7.15</u> <u>7.78</u> <u>84.0</u> <u>212</u> <u>010</u> <u>2.0</u><br>Meter ID: <u>Betty 67</u> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                     |  |  |
| Woody Debris (Snags) _____<br>Undercut Banks / Roots _____<br>Leaf Packs or Mat _____<br>Aquatic Vegetation _____<br>Rock or Shell Rubble _____<br>Sand _____<br>Mud / Muck / Silt _____<br>Other _____<br>Other _____                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                                                                                                                                                                    | <b>Water Odors</b> Normal <input checked="" type="checkbox"/> Petroleum <input type="checkbox"/><br>Sew age <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>Globs <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 checked="" type="checkbox"/> Green (Algae) <input type="checkbox"/><br>Clear <input type="checkbox"/> Other (Specify) _____                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Clarity</b> Clear <input type="checkbox"/> Slightly Turbid <input checked="" 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 checked="" type="checkbox"/> <input 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 checked="" type="checkbox"/> Lake <input type="checkbox"/> Wetland <input type="checkbox"/> Estuary <input type="checkbox"/> Other (Specify) _____                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                     |  |  |
| <b>AMBIENT FIELD CONDITIONS / NOTES:</b><br><u>Environmental report states water flows from Black Lake to Johns Lake, on day of assessment</u><br><input checked="" type="checkbox"/> The antecedent hydrologic conditions have been met to my best knowledge.                                                                                                                                                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                     |  |  |
| <b>SAMPLING TEAM</b><br><u>KMW, TR</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                                                                                                                                                                    | <b>SIGNATURE</b><br><u>K Williams</u>                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>DATE:</b><br><u>2/8/18</u>                                                                                                                                                                       |  |  |

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

Site: John's Lake Outlet

County: Orange/Lake

Date: 2-8-18

Investigators: Terry R. Jordan Katie Williams

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

STORE Station Number: WIN GICE0140

Secchi depth 6.7  
Estimated? N

# points ranked 4-6 17  
total points assessed 99  
% points ranked 4-6 17

Check accompanying data collected at same site/date.  
Algal mat sample ☐  
Linear Veg Survey ☒  
Habitat Assessment ☒  
SCI/Biorecon ☐  
Water sample ☒  
RQ-2018-02-05-71

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

Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached.  
Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank.  
Record canopy cover as the number of small densiometer quadrants (out of 96) that HAVE canopy cover. Measure facing upstream at point 4, 5, or 6.  
Collect algal mat sample following DEP SOP FS 7240 if the percentage of total sampled points with a thickness rank of 4, 5, or 6 is >20%.