Reference Stream SCI

# FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
## ~~STRATEGIC MONITORING~~ PROGRAM FIELD SHEET

February 2017

PAGE 1 OF ____

Data Qualified? Yes / No

**STORET Station Name:** Bear Creek @ Northern way bridge **Date:** 3/22/17 (mm/dd/yyyy)

**STORET Station ID:** 20010049 **WBID:** 2999 **Latitude:** 28.480956777 (Decimal Degrees)

**County:** Seminole **RQ -** 2017-02-27-60 **ORG ID:** 21FLCEN **Longitude:** -81.23832922 (Decimal Degrees)

**Receiving Body of Water:** _____ **Field ID:** 20010049

| Sampling Team Members | WQ Measurements | Sample Collection | Documentation | Preservation | Preservation Check |
|---|---|---|---|---|---|
| Natalie Ayala | | | | | |
| Mike Lindner | ✓ | ✓ | | ✓ | ✓ |
| Katie Williams | | | ✓ | | |
| City of Orlando | | | | | |

**Sampling Equipment**
- ☑ Sample Container ☐ Van Dorn ☐ Pole
- ☐ Carboy ☐ Syringe
- ☐ Dipper ☐ Other _____
- Equipment ID _____

**Collection Method**
- ☑ Wading
- ☐ From Shore
- ☐ Other (note below)

Via Boat: ☐ Canoe/Kayak ☐ Electric Motor ☐ Gasoline Motor

**Water Level:** Dry / Pooled / (Low) / Normal / High / Flooded

**Meter ID#** Boop-non **Photos:** (Yes) / No

**Matrix:** (Fresh) / Marine / DI

**Tide Falling:** Yes / No / (NA)

| Time Zone | Time | Sample Depth (m) | Total Depth (m) | DO (mg/L) | DO (%SAT) | pH | Salinity (ppt) | Secchi Disk (m) | Sp COND (µmhos/cm) | Temp. (C°) |
|---|---|---|---|---|---|---|---|---|---|---|
| (EST) | 1044 | 0.2 | 0.4 | 7.8 | 85 | 7.4 | 0.1 | 0.4(S) | 284 | 19.2 |
| CEN | | | | | | | | | | |

**Biological Samples Collected:** None (HA) (SCI) (RPS) Algae ID LVS LVI Other _____

**SBIO ID Numbers:** SBIO-ID: 77434 RPS-ID: 8694 Macrophyte-ID: n/a LIMS#: 1982402

| Parameter Suite | Parameter Methods | Preservation | Acid Lot# | Expiration | pH Check |
|---|---|---|---|---|---|
| Preserved Nutrients | ☑ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP | ☐ Ice ☐ $H_2SO_4$ | | | ☐ <2 |
| Metals | ☑ W-ICPMS ☑ W-ICP | ☐ Ice ☐ $HNO_3$ | | | ☐ <2 |
| Filtered Nutrients | ☐ W-PO4-F ☐ Field Filtered 0.45 µm Filter | ☐ Ice | | | |
| Chlorophyll | ☑ CHLSUITE-W | ☐ Ice | | | |
| Physical/Aggregate (Fresh) | ☑ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl IC / W-COLOR / W-SO4-IC / W-TDS | ☐ Ice | | | |
| Physical/Aggregate (Marine) | ☐ Alkalinity / W-F / W-TSS / TURBIDITY | ☐ Ice | | | |
| Macroinvertebrates | ☑ MI-FW-QLDC | ☐ Formalin | | | |
| Periphyton | ☐ ALGAE-ID | ☐ Ice | | | |
| Microbiology | ☐ E Coli ☐ F Coli ☐ Entero ☐ PCR-FILTER | ☐ Ice | | | |
| Tracers | ☑ W-LCMS-DU (1/4 vial fill) ☐ W-UHERB-AA | ☐ Ice | | | |
| Pesticides | ☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-LCMS-DU (1/4 vial fill) ☐ W-PCL-SQ-R ☑ W-UHERB-AA ☐ W-GLYPH | ☐ Ice ☐ Other | | | |
| | acetaminophen | | | | |


**Notes:**

Bear Creek @ Northern way bridge

Date: 03/22/2017
RQ-2017-02-27-60

20010049
Field ID ↑
STORET ↓
20010049

**Signature:** [signature] **Date:** 3/22/17

**Field Parameters Entered into LIMS:** KMW 3/31/17 (Initials/Date) **Field Parameters QC in LIMS:** _____ (Initials/Date)

**Date Migrated to STORET:** _____ (Initials/Date) **Field Sheets Scanned/Saved:** _____ (Initials/Date)

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

SAMPLE ID _____ ORG ID 21FLEN LATITUDE 28.68095477
COUNTY Seminole STORET # 20010049 LONGITUDE -81.23832922
DATE 3/22/17 TIME _____ SAMPLING AGENCY _____
SITE NAME Bear Creek
FIELD ID/NAME _____ RECEIVING BODY OF WATER _____

## RIPARIAN ZONE / STREAM FEATURES

**PREDOMINANT LAND-USE IN WATERSHED** (specify relative percent in each category) :

| Forest/Natural | Silviculture | Field/Pasture | Agricultural | Residential | Commercial | Industry | Other (Specify) |
|---|---|---|---|---|---|---|---|
| 25 | | | | 75 | | | |

**Landscape Development Intensity Index (LDI)**: _____

Local Watershed Erosion (select one) : ☐ None ☐ Slight ☑ Moderate ☐ Heavy
Local Watershed NPS Pollution : ☐ No evidence ☑ Slight ☐ Moderate ☐ Heavy

**Width of Riparian Vegetation (m) on Each Buffer Side**
Left Bank : >18 Right Bank : >18

**Hydrologic Modification Score** (per FT 3101) 5

**High Water Mark:** 0.5 (m) + 0.4 (above present water level) = 0.9 (present depth) (above bed)

**Artificially Impounded** ☐ Yes ☑ No

**Typical Width (m) Depth (m)/Velocity (m/sec) Transect**
2 m wide

| | | |
|---|---|---|
| 0.13 m/s | 0.14 m/s | 0.12 m/s |
| 0.2 m deep | 0.4 m deep | 0.2 m deep |

**Artificially Channelized :** ☑ No ☐ Mostly recovered, more sinuous ☐ Some recovery ☐ Recent, severe

**Canopy Cover %** ☐ Open ☑ Lightly Shaded (11-45%) ☐ Heavily Shaded ☐ Moderate Shaded (46-80%)

## SEDIMENT / SUBSTRATE

**Sediment Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse

**Sediment Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ Other (Specify) :

**Smothering of Substrates**

| | None | Slight | Moderate | Severe |
|---|---|---|---|---|
| Sand Smothering: | ☐ | ☐ | ☑ | ☐ |
| Silt Smothering: | ☐ | ☐ | ☑ | ☐ |
| Algae Smothering: | ☐ | ☐ | ☑ | ☐ |

**SUBSTRATE TYPE**
Assessment Tool: ☑ SCI ☑ RPS ☐ LVS ☐ LCI ☐ BioRecon

| | % Coverage | INVERT # Times Sampled | PERI # Times Sampled |
|---|---|---|---|
| Woody Debris (Snags) | | | |
| Undercut Banks / Roots | | | |
| Leaf Packs or Mat ..... | | | |
| Aquatic Vegetation ..... | | | |
| Rock or Shell Rubble.. | | | |
| Sand..... | | | |
| Mud / Muck / Silt ..... | | | |
| Other ..... | | | |
| Other ..... | | | |

**WATER QUALITY**

| | Depth (M) | Temp. (°C) | pH (SU) | D.O. (MG/L) | D.O. Sat (%) | Cond. (UMHO/CM) | Salinity (PPT) | SECCHI (M) |
|---|---|---|---|---|---|---|---|---|
| Top : | 0.2 | 19.2 | 7.4 | 7.8 | 85 | 284 | 0.1 | ☑ VOB |
| Mid: | | | | | | | | |
| Bottom | | | | | | | | TOTAL DEPTH 0.4 |

Meter ID: Boop-non

**Water Odors** Normal ☑ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐

**Water Surface Oils** Normal ☑ Sheen ☐ Globs ☐ Slick ☐ Other ☐

Water Sample Taken? ☑ Yes ☐ No
Sample Preserved? ☑ Yes ☐ No
Lot Number: _____ Exp: _____

**Color** Tannic ☐ Green (Algae) ☐ Clear ☑ Other (Specify) ☐

Algae Sample Taken? ☐ Yes ☐ No
Sample Preserved? ☐ Yes ☐ No
Lot Number: _____ Exp: _____

**Clarity** Clear ☑ Slightly Turbid ☐ Turbid ☐ Opaque ☐

**ABUNDANCE**

| | Not Obs. | Rare | Common | Abundant |
|---|---|---|---|---|
| Periphyton: | ☐ | ☐ | ☑ | ☐ |
| Fish: | ☐ | ☒ | ☑ | ☐ |
| Aquatic Plants: | ☐ | ☑ | ☐ | ☐ |
| Iron/Sulfur Bacteria: | ☑ | ☐ | ☐ | ☐ |

**System Type:** Stream ☑ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐ _____

**AMBIENT FIELD CONDITIONS / NOTES:**

☑ The antecedent hydrologic conditions have been met to my best knowledge.

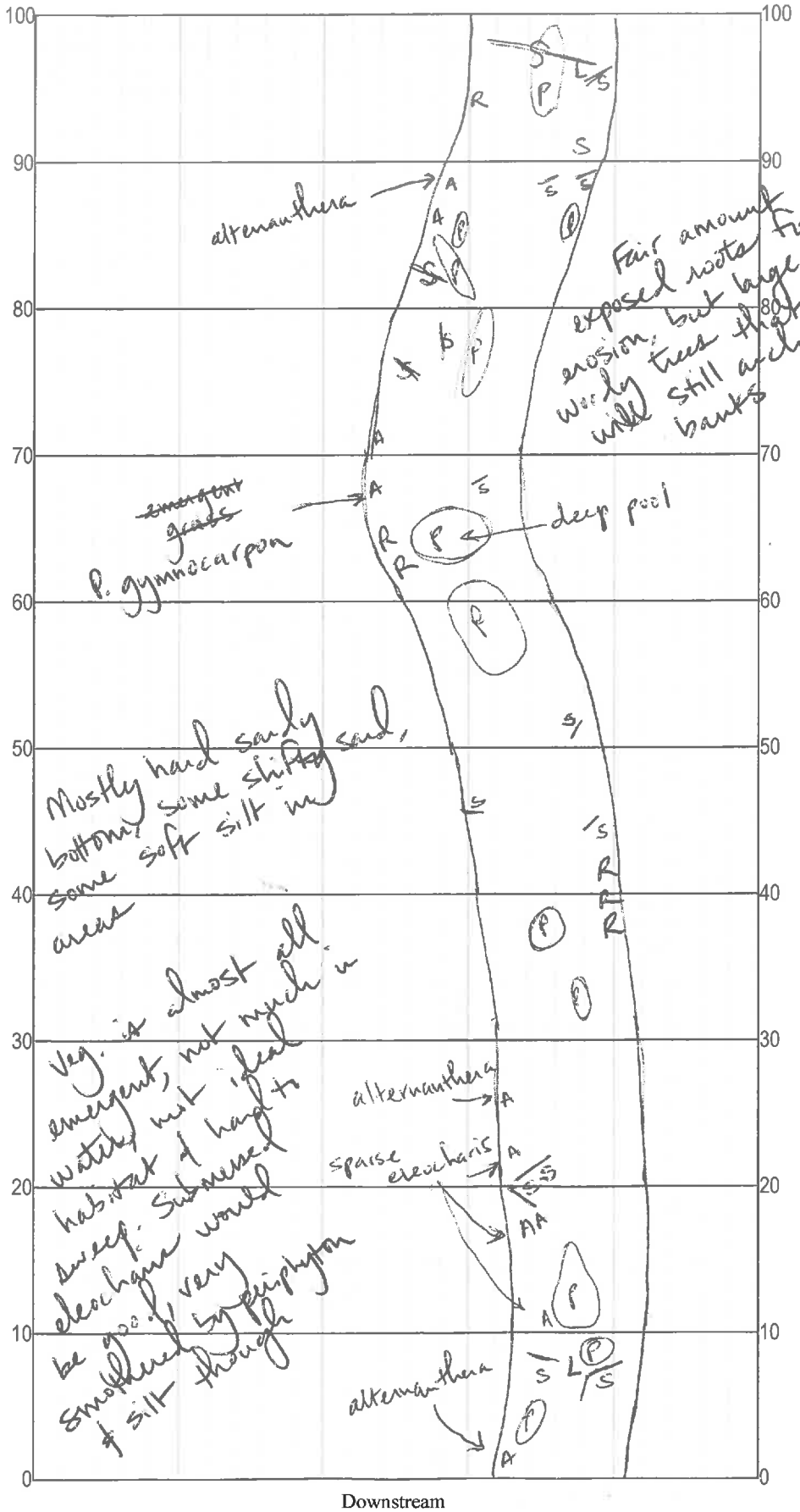
**SAMPLING TEAM**
NA, MKL, KMW, City of Orlando (training)

SIGNATURE KWilliams DATE 3/22/17

62-160.800, F.A.C.

Revision Date: March 1, 2014

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




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

Location: Bear Creek

Date: 3/22/17

Sampler: Katie Williams

| | |
|---|---|
| 100 m: Latitude | |
| Longitude | |
| 0 m: Latitude | |
| Longitude | |

Substrates: Code key, draw **proportionate habitat** abundance. %

| | | |
|---|---|---|
| S | Snags | |
| R | Roots/undercut banks | |
| L | Leaf Packs (or mats) | |
| A | Aquatic Macrophytes | |
| | | |
| | | |
| P | Pools | total # observed = ____ # range expected = ____ |

Average width 2 m

Average depth 0.4 m

Velocity measured at 50 meter mark.

WQ & chemistry taken at 95 meter mark.

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

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

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

Plants observed / other notes: Pontederia Panicum gymnocarpon, Alternanthera, Mikania, Liquidambar, Commelina, Sabal palmetto, Rumex, Sapium, Hydrocotle, Taxodium, Fraxinus, Bidhmera, Toxicodendron radicans, Smilax, oak, Mimosa lobata Ulmus Wedelia, Saururus, Colocasia

62-160.800, F.A.C

Revision Date: March 1, 2014

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

| SAMPLING AGENCY: | | STORET STATION NUMBER: | DATE (MM/DD/YY): | RECEIVING BODY OF WATER: |
|---|---|---|---|---|
| | | 20010049 | 3/22/17 | |
| REMARKS: | COUNTY: | LOCATION: | | FIELD ID/NAME: |
| | Seminole | Bear Creek | | 20010049 |

| Habitat Parameter | Optimal | Suboptimal | Marginal | Poor |
|---|---|---|---|---|
| Primary Habitat Components<br>**Substrate Diversity** 9 | Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock]<br>20 19 18 17 16 | Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags)<br>15 14 13 12 11 | Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed<br>10 9 8 7 6 | One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered<br>5 4 3 2 1 |
| **Substrate Availability** 3 | 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** 12 | 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** 11<br>Primary Score 35 | 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<br>**Artificial Channelization** 18 | Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks.<br>20 19 18 17 16 | Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered.<br>15 14 13 12 11 | Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area.<br>10 9 8 7 6 | Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks.<br>5 4 3 2 1 |
| **Bank Stability**<br>Right Bank 7<br>Left Bank MW 7 | Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankful 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 9<br>Left Bank 8 | 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 7<br>Left Bank 7<br>Secondary Score 64 3 LB | 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 |

98 **TOTAL SCORE**

| Date: 3/22/17 | Analyst: KMW, MKL, NA | Signature: KWilliams |
|---|---|---|

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

Waterbody: Bear Creek | Date: 3/22 | County: Seminole | Storet Number: 200100f9

Analyst: Katie Williams | Signature: K Williams

Comments: 42m², no LVS

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 $m^2$ of taxa present). Note in the boxes below if no dominant are selected, and note total macrophyte abundance rank for each section. Only the most common taxa are listed, so use blank spaces for additional taxa names.

| HERBACEOUS SPECIES | Meter Mark 0-10 | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | Specimen collected (check) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alternanthera philoxeroides | | | | | | | | | | | |
| Bacopa caroliniana | | | | | | | | | | | |
| Bacopa monneri | | | | | | | | | | | |
| Bidens mitis | | | | | | | | | | | |
| Boehmeria cylindrica | | | | | | | | | | | |
| Centella asiatica | | | | | | | | | | | |
| Ceratophyllum demersum | | | | | | | | | | | |
| Chara | | | | | | | | | | | |
| Cicuta maculata | | | | | | | | | | | |
| Cladium jamaicense | | | | | | | | | | | |
| Colocasia esculenta | | | | | | | | | | | |
| Commelina diffusa | | | | | | | | | | | |
| Commelina virginica | | | | | | | | | | | |
| Crinum americanum | | | | | | | | | | | |
| Diodia virginiana | | | | | | | | | | | |
| Eichhornia crassipes | | | | | | | | | | | |
| Eleocharis (wispy viviparous) | | | | | | | | | | | |
| Hydrilla verticillata | | | | | | | | | | | |
| Hydrocotle | | | | | | | | | | | |
| Hygrophila polysperma | | | | | | | | | | | |
| Hymenocallis | | | | | | | | | | | |
| Lachnanthes caroliniana | | | | | | | | | | | |
| Landoltia punctata | | | | | | | | | | | |
| Lemna | | | | | | | | | | | |
| Limnophila sessiflora | | | | | | | | | | | |
| Ludwigia leptocarpa | | | | | | | | | | | |
| Ludwigia palustris | | | | | | | | | | | |
| Ludwigia peruviana | | | | | | | | | | | |
| Ludwigia repens | | | | | | | | | | | |
| Luziola fluitans | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| If no Dominant or Co-Dominant were selected, indicate with "X" | | | | | | | | | | | |
| **Indicate % cover macrophytes per section** | | | | | | | | | | | |
| 0-5% Macrophyte Coverage | | | | | | | | | | | |
| >5 and ≤10% Macrophyte Coverage | | | | | | | | | | | |
| >10 and ≤25% Macrophyte Coverage | | | | | | | | | | | |
| >25 and ≤50% Macrophyte Coverage | | | | | | | | | | | |
| > 50% Macrophyte Coverage | | | | | | | | | | | |

| HERBACEOUS SPECIES | Meter Mark 0-10 | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | Specimen collected (check) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Micranthemum glomeratum | | | | | | | | | | | |
| Micranthemum umbrosum | | | | | | | | | | | |
| Myriophyllum aquaticum | | | | | | | | | | | |
| Najas guadelupensis | | | | | | | | | | | |
| Nuphar luteum | | | | | | | | | | | |
| Orontium aquaticum | | | | | | | | | | | |
| Panicum hemitomon | | | | | | | | | | | |
| Panicum repens | | | | | | | | | | | |
| Panicum rigidulum | | | | | | | | | | | |
| Pistia stratioides | | | | | | | | | | | |
| Polygonum glabra | | | | | | | | | | | |
| Polygonum hydropiperoides | | | | | | | | | | | |
| Polygonum punctatum | | | | | | | | | | | |
| Pontedaria cordata | | | | | | | | | | | |
| Potamogeton illinoensis | | | | | | | | | | | |
| Ruellia simplex | | | | | | | | | | | |
| Sacciolepis striata | | | | | | | | | | | |
| Sagittaria kurziana | | | | | | | | | | | |
| Sagittaria lancifolia | | | | | | | | | | | |
| Sagittaria latifolia | | | | | | | | | | | |
| Salvinia minima | | | | | | | | | | | |
| Samolus parviflora | | | | | | | | | | | |
| Saururus cernuus | | | | | | | | | | | |
| Sparganium americanum | | | | | | | | | | | |
| Typha | | | | | | | | | | | |
| Vallisneria americana | | | | | | | | | | | |
| Zizania aquatica | | | | | | | | | | | |

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

Site: Bear Creek | County: Seminole | Date: 3/22/17 | Investigators: Mike Linger

STORET Station Number: 20010049

| Transect (m) | Point 1=right 9=left | Algal Thickness Rank (N-6, X) | Estimated | Canopy Cover |
|---|---|---|---|---|
| 0 | 1 | N | N | |
| | 2 | N | | |
| | 3 | N | | |
| | 4 | 6 | | |
| | 5 | N | | 84 |
| | 6 | N | | |
| | 7 | N | | |
| | 8 | X3 | | |
| | 9 | 3 | | |
| 10 | 1 | N | | |
| | 2 | N | | |
| | 3 | N | | |
| | 4 | N | | |
| | 5 | 6 | | 88 |
| | 6 | N | | |
| | 7 | 4 | | |
| | 8 | N | | |
| | 9 | N | | |
| 20 | 1 | N | | |
| | 2 | N | | |
| | 3 | 3 | | |
| | 4 | N | | |
| | 5 | N | | 72 |
| | 6 | 5 | | |
| | 7 | 6 | | |
| | 8 | N | | |
| | 9 | 3 | | |
| 30 | 1 | N | | |
| | 2 | N | | |
| | 3 | N | | |
| | 4 | N | | |
| | 5 | N | | 92 |
| | 6 | 5 | | |
| | 7 | N | | |
| | 8 | N | | |
| | 9 | N | | |
| 40 | 1 | N | | |
| | 2 | N | | |
| | 3 | N | | |
| | 4 | N | | |
| | 5 | N | | 86 |
| | 6 | N | | |
| | 7 | N | | |
| | 8 | 3 | | |
| | 9 | 3 | | |
| 50 | 1 | N | | |
| | 2 | 3 | | |
| | 3 | N | | |
| | 4 | 4 | | |
| | 5 | N | | 80 |
| | 6 | 5 | | |
| | 7 | N | | |
| | 8 | N | | |
| | 9 | N | | |
| 60 | 1 | N | | |
| | 2 | N | | |
| | 3 | N | | |
| | 4 | N | | |
| | 5 | N | | 84 |
| | 6 | N | | |
| | 7 | 3 | | |
| | 8 | N | | |
| | 9 | N | | |
| 70 | 1 | N | | |
| | 2 | N | | |
| | 3 | N | | |
| | 4 | N | | |
| | 5 | 4 | | 64 |
| | 6 | N | | |
| | 7 | 5 | | |
| | 8 | N | | |
| | 9 | N | | |
| 80 | 1 | N | | |
| | 2 | N | | |
| | 3 | N | | |
| | 4 | 3 | | |
| | 5 | 4 | | 76 |
| | 6 | N | | |
| | 7 | N | | |
| | 8 | N | | |
| | 9 | N | | |
| 90 | 1 | N | | |
| | 2 | N | | |
| | 3 | N | | |
| | 4 | N | | |
| | 5 | N | | 56 |
| | 6 | 3 | | |
| | 7 | 3 | | |
| | 8 | N | | |
| | 9 | N | | |
| 100 | 1 | 4 | | |
| | 2 | 4 | | |
| | 3 | 3 | | |
| | 4 | N | | |
| | 5 | N | | 92 |
| | 6 | 4 | | |
| | 7 | 3 | | |
| | 8 | N | | |
| | 9 | N | | |

| | |
|---|---|
| Secchi depth | 0.4 (S) |
| Estimated? | |

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

| Check accompanying data collected at same site/date. | |
|---|---|
| Algal mat sample | |
| Linear Veg Survey | |
| Habitat Assessment | ✓ |
| SCI/Biorecon | ✓ |
| Water sample | ✓ |

RQ- 2017-02-27-60

| 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 |

4 X 4 = 16

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%.