

RQ#: 2016-05-23-48 EventID# \_\_\_\_\_

Sampling Date: 5-23-16 Sampling Crew: Julie Anton, Ashley Simpson

LAKE ALLEN

Site(s)/STORET #: 2809240822920 NBID 1463H

615W0039

Lake Allen

STORET /LIMS:

Sonde: Pass/ failed CCV  
Parameter(s): \_\_\_\_\_

☐ 1. Spread Sheet (LIMS Input) \_\_\_\_\_ / \_\_\_\_\_  
Initials Date

☐ 2. QC 1 \_\_\_\_\_ / \_\_\_\_\_  
Initials Date

☐ 3. QC 2 \_\_\_\_\_ / \_\_\_\_\_  
Initials Date

☐ 4. SIM File Generated \_\_\_\_\_ / \_\_\_\_\_  
Initials Date

☐ 5. STORET Upload \_\_\_\_\_ / \_\_\_\_\_  
Initials Date

Biology:

SBIO ID# \_\_\_\_\_  
VPDB ID# \_\_\_\_\_

☐ 6. Site and Event established in SBio?

☐ 7. Habitat Data and YSI Entered Into SBIO \_\_\_\_\_ / \_\_\_\_\_  
Initials Date

☐ 8. Habitat Data and YSI QC \_\_\_\_\_ / \_\_\_\_\_  
Initials Date

☐ 9. SBio data marked complete \_\_\_\_\_ / \_\_\_\_\_  
Initials Date

☐ 10. Macrophyte Data Entered into VPDB \_\_\_\_\_ / \_\_\_\_\_  
Initials Date

☐ 12. Field Paperwork Filed In Biology Lab \_\_\_\_\_ / \_\_\_\_\_  
Initials Date

☐ 13. Macrophyte Data QC \_\_\_\_\_ / \_\_\_\_\_ 11. Macrophyte Data Marked Complete \_\_\_\_\_ / \_\_\_\_\_

# DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: \_\_\_\_\_ MACROPHYTE ID: \_\_\_\_\_ LATITUDE: \_\_\_\_\_  
 COUNTY: HILLS STORET #: 2809240822920 LONGITUDE: \_\_\_\_\_  
 DATE: 5-23-16 TIME: 14:05 SAMPLING AGENCY: ENKA  
 SITE NAME: LAKE ARLEN WBID: 1463H  
 FIELD ID/NAME: \_\_\_\_\_ LAKE SIZE: 1 RQ: 2016-05-23-48

## WATERSHED / LAKESIDE FEATURES

|                                                                                                                                                                                                                                                                       |  |                                                                                                                             |  |                                                                                                                                |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------|--|
| <b>PREDOMINANT LAND-USE IN WATERSHED</b> (specify relative percent in each category – from GIS) :<br>Forest/Natural <u>50</u> Silviculture _____ Field/Pasture _____ Agricultural _____ Residential <u>50</u> Commercial _____ Industrial _____ Other (Specify) _____ |  |                                                                                                                             |  | <b>LANDSCAPE DEVELOPMENT INTENSITY</b> (100 m buffer)<br>LDI: _____                                                            |  |
| Local Watershed Erosion (select one) : <input checked="" type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Heavy                                                                                      |  |                                                                                                                             |  | Artificially Impounded <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                     |  |
| Local Watershed NPS Pollution : <input type="checkbox"/> No evidence <input type="checkbox"/> Slight <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy                                                                                      |  |                                                                                                                             |  | Land Use Source & Year: _____                                                                                                  |  |
| <b>STORMWATER INPUTS</b><br><u>12</u>                                                                                                                                                                                                                                 |  | Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation<br>20 19 18 17 16                     |  | Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place<br>15 14 13 12 11           |  |
| <b>LAKESIDE ALTERATIONS</b><br><u>11</u>                                                                                                                                                                                                                              |  | Very few man-made structures, roads, or other disturbance adjacent to lake (<10% lakeside affected)<br>20 19 18 17 16       |  | Moderate disturbance visible - structures, roads or other (10%-49% lakeside affected)<br>15 14 13 12 11                        |  |
| <b>BUFFER ZONE</b><br><u>13</u>                                                                                                                                                                                                                                       |  | Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer<br>20 19 18 17 16 |  | 89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer<br>15 14 13 12 11                                         |  |
|                                                                                                                                                                                                                                                                       |  |                                                                                                                             |  | Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place<br>10 9 8 7 6       |  |
|                                                                                                                                                                                                                                                                       |  |                                                                                                                             |  | Many structures, roads or other human disturbance visible (50%-70% lakeside affected)<br>10 9 8 7 6                            |  |
|                                                                                                                                                                                                                                                                       |  |                                                                                                                             |  | Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place<br>5 4 3 2 1 |  |
|                                                                                                                                                                                                                                                                       |  |                                                                                                                             |  | 50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer<br>10 9 8 7 6                                          |  |
|                                                                                                                                                                                                                                                                       |  |                                                                                                                             |  | < 29% of shoreline with >18m buffer<br>5 4 3 2 1                                                                               |  |

## WATER / SUBSTRATE / BIOLOGICAL: SAMPLES AND OBSERVATIONS

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |                                                                                                                                                                                                                                                                                              |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| <b>Water:</b><br>Nutrient Sample Taken? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Preserved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No pH < 2 <input type="checkbox"/> No<br>Color Sample Taken? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Lot # _____ Exp. Date: _____<br>Alkalinity Sample Taken? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Water Level <input type="checkbox"/> Low <input checked="" type="checkbox"/> Normal <input type="checkbox"/> High            |  |  |  | <b>Water Odors:</b> <input checked="" type="checkbox"/> Normal<br><input type="checkbox"/> Sewage <input type="checkbox"/> Petroleum <input type="checkbox"/> Other _____                                                                                                                    |  |  |  |
| <b>Meter Readings:</b><br>Top: <u>0.3</u> <u>30.4</u> <u>6.9</u> <u>6.7</u> <u>89</u> <u>194</u> <u>0.09</u><br>Mid-Depth: _____<br>Bottom: <u>3.8</u> <u>23.6</u> <u>6.4</u> <u>0.4</u> <u>5.0</u> <u>200</u> <u>0.09</u>                                                                                                                                                                                                                                                                                                                                                            |  |  |  | <b>Water Surface Oils:</b> <input checked="" type="checkbox"/> None<br><input type="checkbox"/> Sheen/Slick <input type="checkbox"/> Glob <input type="checkbox"/> Other _____                                                                                                               |  |  |  |
| Meter ID: <u>LIC Jon</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |  | <b>Clarity:</b> <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Opaque <input type="checkbox"/> Turbid <input type="checkbox"/> Slightly Turbid<br><b>Color:</b> <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Tannic <input type="checkbox"/> Green |  |  |  |
| <b>Sediment Type:</b> (may check more than one)<br><input type="checkbox"/> Sandy <input checked="" type="checkbox"/> Organic fibrous (peaty, CPOM) <input type="checkbox"/> Vegetated<br><input type="checkbox"/> Sand/Silt <input type="checkbox"/> Organic smooth (muck) <input type="checkbox"/> Other (Specify): _____                                                                                                                                                                                                                                                           |  |  |  | <b>SECCHI (M):</b> <u>1.3</u> <b>Total Station Depth (M):</b> <u>4.2</u><br><b>VOB:</b> <input type="checkbox"/>                                                                                                                                                                             |  |  |  |
| <b>Biological Communities:</b><br>LVI Conducted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Phytoplankton Sample Taken? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>Sample Preserved? <input type="checkbox"/> Yes <input type="checkbox"/> No<br>Lot #: _____ Exp Date: _____<br>Algal Bloom/Algal ID Sample Taken? <input type="checkbox"/> Yes <input type="checkbox"/> No<br>Active Vegetation Mgmt? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't Know                          |  |  |  | <b>Sediment Odors:</b> <input checked="" type="checkbox"/> Anaerobic <input type="checkbox"/> Normal <input type="checkbox"/> Other (Specify): _____                                                                                                                                         |  |  |  |
| <b>Abundance:</b><br>Periphyton <input type="checkbox"/> Absent <input type="checkbox"/> Rare <input checked="" type="checkbox"/> Common <input type="checkbox"/> Abundant<br>Nuisance Plants <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/><br>Submersed Plants <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br>Exotic Apple Snails <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |  |  |  | <b>Additional Notes:</b>                                                                                                                                                                                                                                                                     |  |  |  |

## Weather Conditions :

SAMPLING TEAM: Julie Ashton, Ashley Sammons SIGNATURE: [Signature] DATE: 5-23-16



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
STRATEGIC MONITORING PROGRAM FIELD SHEET

February 2016

A-KIT

PAGE 1 OF 1

Data Qualified?  
Yes / No

STORET Station Name:

LAKE ALLEN

Date: 5-23-16  
(mm/dd/yyyy)

STORET Station ID:

2809240822920

Latitude:

28.15666

(Decimal Degrees)

WBID: 146311

RQ:

2016-05-23-48

ORG ID:

21FLTPA

Longitude:

82.48861

(Decimal Degrees)

Receiving Body of Water:

Field ID:

61SW0039

County:

HILLS

| Sampling Team Members |  |  |  |  | WQ Measurements | Sample Collection | Documentation | Preservation | Preservation Check |
|-----------------------|--|--|--|--|-----------------|-------------------|---------------|--------------|--------------------|
| Judy Ashton           |  |  |  |  |                 | X                 | X             |              |                    |
| Ashley Salmonson      |  |  |  |  | X               |                   |               | X            | X                  |

| Sampling Equipment                                   |                                   |                               |
|------------------------------------------------------|-----------------------------------|-------------------------------|
| <input checked="" type="checkbox"/> Sample Container | <input type="checkbox"/> Van Dorn | <input type="checkbox"/> Pole |
| <input type="checkbox"/> Carboy                      | <input type="checkbox"/> Syringe  |                               |
| <input type="checkbox"/> Dipper                      | <input type="checkbox"/> Other    |                               |
| Equipment ID                                         |                                   |                               |

| Collection Method                           |                                                    |
|---------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> Wading             | <input checked="" type="checkbox"/> Via Boat       |
| <input type="checkbox"/> From Shore         | <input checked="" type="checkbox"/> Canoe/Kayak    |
| <input type="checkbox"/> Other (note below) | <input checked="" type="checkbox"/> Electric Motor |
|                                             | <input type="checkbox"/> Gasoline Motor            |

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

Matrix: Fresh / Marine / DI

Meter ID#

LIL JON

Photos:

Yes / No

Tide Falling:

Yes / No / NA

| Time Zone | Time  | Sample Depth (m) | Total Depth (m) | DO (mg/L) | DO (%SAT) | pH  | Salinity (ppt) | Secchi Disk (m) | Sp COND (µmhos/cm) | Temp. (C°) |
|-----------|-------|------------------|-----------------|-----------|-----------|-----|----------------|-----------------|--------------------|------------|
| EST       | 2:05  | 0.3              | 4.2             | 6.7       | 89        | 6.9 | 0.09           | 1.3             | 194                | 30.4       |
| CEN       | 14:05 | 3.8              |                 | 0.4       | 5         | 6.4 | 0.09           |                 | 200                | 23.6       |

Biological Samples Collected: None HA SCI LVS RPS LVI Other

| Parameter Suite            | Parameter Methods                                                                                                                                                                                                      | Preservation                                                                      | Acid Lot# | Expiration | pH Check                               |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------|------------|----------------------------------------|
| Preserved Nutrients        | <input checked="" type="checkbox"/> W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP                                                                                                                                        | <input checked="" type="checkbox"/> Ice <input checked="" type="checkbox"/> H2SO4 |           |            | <input checked="" type="checkbox"/> <2 |
| Metals                     | <input type="checkbox"/> W-ICPMS <input type="checkbox"/> W-ICP                                                                                                                                                        | <input type="checkbox"/> Ice <input type="checkbox"/> HNO2                        |           |            | <input type="checkbox"/> <2            |
| Filtered Nutrients         | <input checked="" type="checkbox"/> W-PO4-F <input checked="" type="checkbox"/> Field Filtered 0.45 µm Filter                                                                                                          | <input checked="" type="checkbox"/> Ice                                           |           |            |                                        |
| Chlorophyll                | <input checked="" type="checkbox"/> CHLSUITE-W                                                                                                                                                                         | <input checked="" type="checkbox"/> Ice                                           |           |            |                                        |
| BOD                        | <input type="checkbox"/> BOD-UNTIN                                                                                                                                                                                     | <input type="checkbox"/> Ice                                                      |           |            |                                        |
| Physical/Aggregate (Kit A) | <input checked="" type="checkbox"/> Alkalinity / W-F / W-TSS / TURBIDITY / W-CHC / W-COLOR / W-SO4-IC / W-TDS                                                                                                          | <input checked="" type="checkbox"/> Ice                                           |           |            |                                        |
| Physical/Aggregate (Kit B) | <input type="checkbox"/> Alkalinity / W-F / W-TSS / TURBIDITY                                                                                                                                                          | <input type="checkbox"/> Ice                                                      |           |            |                                        |
| Macroinvertebrates         | <input type="checkbox"/> MI-FW-QLDC                                                                                                                                                                                    | <input type="checkbox"/> Formalin                                                 |           |            |                                        |
| Microbiology               | <input type="checkbox"/> E Coli <input type="checkbox"/> F Coli <input type="checkbox"/> Enteroc <input type="checkbox"/> QPCR                                                                                         | <input type="checkbox"/> Ice                                                      |           |            |                                        |
| Periphyton                 | <input type="checkbox"/> ALGAE-ID                                                                                                                                                                                      | <input type="checkbox"/> Ice                                                      |           |            |                                        |
| Pesticides                 | <input type="checkbox"/> W-PSNP-TQ <input type="checkbox"/> W-AHERB-AA <input type="checkbox"/> W-PYR-AA-R<br><input type="checkbox"/> W-PC-AA-SF <input type="checkbox"/> W-UHERB-AA <input type="checkbox"/> W-GLYPH | <input type="checkbox"/> Ice<br><input type="checkbox"/> Other                    |           |            |                                        |

Flow m/s "J" Qualify Flow

Notes:

RQ-2016-05-23-48  
Date: 05/23/16  
Time:

G1SW0039

Signature: [Signature] Date: 5-23-16

Field Parameters Entered into LIMS: (Initials/Date) Field Parameters QC in LIMS: (Initials/Date)  
Date Migrated to STORET: (Initials/Date) Field Sheets Scanned/Saved: (Initials/Date)

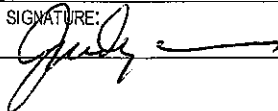
| Waterbody: <u>Lake Allen</u>                                                                                                                               |   | County: <u>HILLS</u> |   | Date: <u>5/23/16</u>                   |                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----------------------|---|----------------------------------------|----------------|
| Analyst:                                                                                                                                                   |   | Signature:           |   | STORET:                                |                |
| Except where noted as "sp." species level identification required. *Genera that may require lab verification*                                              |   |                      |   | Lake units sampled (circle one group): |                |
| Plants in bold = FLEPPC invasive exotic.                                                                                                                   |   |                      |   | 1, 4, 7, 10    2, 5, 8, 11             |                |
| It is important to note dominant or co-dominant taxa (by areal extent) for each unit. Use "D" to denote dominant taxon, or "C" for the 2 co-dominant taxa. |   |                      |   | <u>3, 6, 9, 12</u>                     |                |
| SPECIES                                                                                                                                                    | 3 | 6                    | 9 | 12                                     | Collected? (✓) |
| Acer rubrum                                                                                                                                                |   |                      |   |                                        |                |
| Alternanthera philoxeroides                                                                                                                                | X | X                    |   | X                                      |                |
| Andropogon sp.                                                                                                                                             |   |                      |   |                                        |                |
| Azolla filiculoides (A. caroliniana)                                                                                                                       |   |                      |   |                                        |                |
| Baccharis sp.                                                                                                                                              |   |                      |   |                                        |                |
| Bacopa caroliniana                                                                                                                                         | X |                      |   |                                        |                |
| Bacopa monnieri                                                                                                                                            | X | X                    |   | X                                      |                |
| Bidens laevis                                                                                                                                              |   |                      |   |                                        |                |
| Bidens mitis                                                                                                                                               |   |                      |   |                                        |                |
| Blechnum serrulatum                                                                                                                                        |   |                      |   | X                                      |                |
| Boehmeria cylindrica                                                                                                                                       |   |                      |   |                                        |                |
| Brasenia schreberi                                                                                                                                         |   |                      |   |                                        |                |
| Cabomba caroliniana                                                                                                                                        |   |                      |   |                                        |                |
| Casuarina equisetifolia                                                                                                                                    |   |                      |   |                                        |                |
| Centella asiatica                                                                                                                                          |   |                      |   |                                        |                |
| Cephalanthus occidentalis                                                                                                                                  |   |                      | X | X                                      |                |
| Ceratophyllum demersum                                                                                                                                     |   |                      |   |                                        |                |
| Chara sp.                                                                                                                                                  |   |                      |   |                                        |                |
| Cladium jamaicense                                                                                                                                         |   |                      |   |                                        |                |
| Cliftonia monophylla                                                                                                                                       |   |                      |   |                                        |                |
| Colocasia esculenta                                                                                                                                        |   |                      | X |                                        |                |
| *Commelina                                                                                                                                                 |   |                      |   |                                        |                |
| Crinum americanum                                                                                                                                          |   |                      |   |                                        |                |
| *Cyperus alternifolius (C. involucratus)                                                                                                                   |   |                      |   |                                        |                |
| Cyperus articulatus                                                                                                                                        |   |                      |   |                                        |                |
| Cyperus haspan                                                                                                                                             |   |                      |   |                                        |                |
| *Cyperus lecontei                                                                                                                                          |   |                      |   |                                        |                |
| *Cyperus polystachyos                                                                                                                                      |   |                      |   |                                        |                |
| *Cyperus odoratus                                                                                                                                          |   |                      |   |                                        |                |
| *Cyperus surinamensis                                                                                                                                      |   |                      |   |                                        |                |
| Cyrtia racemiflora                                                                                                                                         |   |                      |   |                                        |                |
| Decodon verticillatus                                                                                                                                      |   |                      |   |                                        |                |
| Diodia virginiana                                                                                                                                          |   |                      |   |                                        |                |
| *Echinochloa crus-galli                                                                                                                                    |   |                      |   |                                        |                |
| *Echinochloa muricatum                                                                                                                                     |   |                      |   |                                        |                |
| Echinochloa walteri                                                                                                                                        |   |                      |   |                                        |                |
| Eclipta prostrata (E. alba)                                                                                                                                |   |                      |   |                                        |                |
| Egeria densa                                                                                                                                               |   |                      |   |                                        |                |
| Eichhornia crassipes                                                                                                                                       |   |                      |   |                                        |                |
| *Eleocharis baldwinii                                                                                                                                      | X |                      |   |                                        |                |
| *Eleocharis                                                                                                                                                |   |                      |   |                                        |                |
| Eleocharis cellulosa                                                                                                                                       |   |                      |   |                                        |                |
| Eleocharis equisetoides                                                                                                                                    |   |                      |   |                                        |                |
| Eleocharis interstincta                                                                                                                                    |   |                      |   |                                        |                |
| *Eriocaulon compressum                                                                                                                                     |   |                      |   |                                        |                |
| *Eriocaulon decangulare                                                                                                                                    |   |                      |   |                                        |                |
| Eupatorium capillifolium                                                                                                                                   |   |                      |   |                                        |                |
| *Fuirena                                                                                                                                                   |   |                      |   |                                        |                |
| Fuirena scirpoidea                                                                                                                                         |   |                      |   |                                        |                |
| Gordonia lasianthus                                                                                                                                        |   |                      |   |                                        |                |
| Habenaria repens                                                                                                                                           |   |                      |   |                                        |                |
| Hydrilla verticillata                                                                                                                                      | X |                      |   |                                        |                |
| Hydrocotyle sp.                                                                                                                                            | X | X                    | X | X                                      |                |
| Hygrophila polysperma                                                                                                                                      |   |                      |   |                                        |                |
| *Hypericum fasciculatum                                                                                                                                    |   |                      |   |                                        |                |
| *Hypericum hypericoides                                                                                                                                    |   |                      |   |                                        |                |
| *Hypericum myrtifolium                                                                                                                                     |   |                      |   |                                        |                |
| Ilex cassine                                                                                                                                               |   |                      |   |                                        |                |
| Ipomoea aquatica                                                                                                                                           |   |                      |   |                                        |                |
| Ipomoea sagittata                                                                                                                                          |   |                      |   |                                        |                |
| Itea virginica                                                                                                                                             |   |                      |   |                                        |                |
| Juncus effusus                                                                                                                                             |   |                      |   |                                        |                |
| *Juncus marginatus                                                                                                                                         |   |                      |   |                                        |                |
| *Juncus megacephalus                                                                                                                                       |   |                      |   |                                        |                |
| Juncus repens                                                                                                                                              |   |                      |   |                                        |                |
| *Juncus scirpoides                                                                                                                                         |   |                      |   |                                        |                |
| Lachnanthes caroliniana                                                                                                                                    |   |                      |   |                                        |                |
| Leersia hexandra                                                                                                                                           |   |                      |   |                                        |                |
| Landoltia punctata (Spirodela punctata)                                                                                                                    |   |                      |   |                                        |                |
| Lemna sp.                                                                                                                                                  |   |                      |   |                                        |                |
| Leucothoe racemosa (Eubotrys racemosa)                                                                                                                     |   |                      |   |                                        |                |
| Limnobia spongia                                                                                                                                           |   |                      |   |                                        |                |
| Limnophila sessiliflora                                                                                                                                    |   |                      |   |                                        |                |
| Liquidambar styraciflua                                                                                                                                    |   |                      |   |                                        |                |
| *Ludwigia arcuata                                                                                                                                          |   |                      |   |                                        |                |
| *Ludwigia leptocarpa                                                                                                                                       |   |                      |   |                                        |                |
| *Ludwigia linearis                                                                                                                                         |   |                      |   |                                        |                |
| *Ludwigia octovalvis                                                                                                                                       |   |                      |   |                                        |                |
| *Ludwigia peruviana                                                                                                                                        |   | X                    | X | X                                      | X              |
| *Ludwigia repens                                                                                                                                           |   |                      |   |                                        |                |
| *Ludwigia                                                                                                                                                  |   |                      |   |                                        |                |
| Luziola fluitans (Hydrochloa carolinensis)                                                                                                                 |   |                      |   |                                        |                |
| Lyonia lucida                                                                                                                                              |   |                      |   |                                        |                |
| Magnolia virginiana                                                                                                                                        |   |                      |   |                                        |                |
| Mayaca fluviatilis                                                                                                                                         |   |                      |   |                                        |                |
| Melaleuca quinquenervia                                                                                                                                    |   |                      |   |                                        | X              |
| Micranthemum glomeratum                                                                                                                                    |   |                      |   |                                        |                |
| Micranthemum umbrosum                                                                                                                                      |   |                      |   |                                        |                |
| Mikania scandens                                                                                                                                           |   | X                    | X | X                                      | X              |
| Mimosa pigra                                                                                                                                               |   |                      |   |                                        |                |
| Myrica cerifera                                                                                                                                            |   |                      |   |                                        |                |
| Cyperus                                                                                                                                                    | X | X                    |   |                                        |                |
| Eleocharis virginiana                                                                                                                                      | X |                      |   |                                        |                |
| MOCK BISHOP                                                                                                                                                | X |                      |   |                                        | X              |
| Ptilinopus capillaceus                                                                                                                                     |   |                      |   |                                        |                |
| Furina parula                                                                                                                                              | X |                      |   |                                        |                |



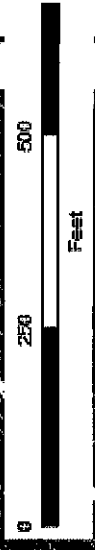
**DEP Form FD 9000-6: Lake Habitat Assessment Field Sheet**

|                                                |                                                                                                                                                                                                                                                                                                                       |                                |                                                                                                                                            |                                |                                                                                                                                                 |                                     |                                                                                                                                            |  |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--|
| STORET STATION NUMBER:<br><b>2809240822920</b> |                                                                                                                                                                                                                                                                                                                       | DATE (M/D/Y)<br><b>5-23-16</b> |                                                                                                                                            | LAKE NAME<br><b>LAKE ALLEN</b> |                                                                                                                                                 | FIELD ID / NAME:<br><b>615W0039</b> |                                                                                                                                            |  |
| ECO-REGION:                                    |                                                                                                                                                                                                                                                                                                                       | COUNTY:<br><b>HUS</b>          |                                                                                                                                            | SAMPLING LOCATION/DESCRIPTION: |                                                                                                                                                 | LAKE SIZE:<br><b>L</b>              |                                                                                                                                            |  |
| <b>PARAMETER</b>                               | No surface inflow or outflow present, very long water residence time, groundwater seepage dominates<br><input checked="" type="checkbox"/>                                                                                                                                                                            |                                | Surface water inflow present, but flow is rare, moderate to long water residence time<br><input type="checkbox"/>                          |                                | Surface water inflow and outflow present (or outflow only), sometimes with visible flow, short water residence time<br><input type="checkbox"/> |                                     | Impounded, hydrology of system artificially controlled<br><input type="checkbox"/>                                                         |  |
| <b>HYDROLOGY</b>                               |                                                                                                                                                                                                                                                                                                                       |                                |                                                                                                                                            |                                |                                                                                                                                                 |                                     |                                                                                                                                            |  |
| <b>Color</b>                                   | Very clear, uncolored water (benthic sampling appropriate) <input type="checkbox"/>                                                                                                                                                                                                                                   |                                | Water somewhat tannin stained (benthic sampling appropriate) <input checked="" type="checkbox"/>                                           |                                | Dark, discolored water (water color 20 PCU or higher) <input type="checkbox"/>                                                                  |                                     | Visibility extremely reduced due to high color <input type="checkbox"/>                                                                    |  |
|                                                | <b>Optimal</b>                                                                                                                                                                                                                                                                                                        |                                | <b>Suboptimal</b>                                                                                                                          |                                | <b>Marginal</b>                                                                                                                                 |                                     | <b>Poor</b>                                                                                                                                |  |
| <b>Secchi</b>                                  | Secchi >3 m<br>Or VOB                                                                                                                                                                                                                                                                                                 |                                | Secchi(m)                                                                                                                                  |                                | 3 2.6 2.2 1.8 1.4                                                                                                                               |                                     | 1.0 0.9 0.8 0.7 0.6                                                                                                                        |  |
|                                                | 20 19 18 17 16                                                                                                                                                                                                                                                                                                        |                                | 15 14 13 12 11                                                                                                                             |                                | 10 9 8 7 6                                                                                                                                      |                                     | 5 4 3 2 1                                                                                                                                  |  |
| <b>Vegetation Quality</b>                      | Diverse, expected native vegetation (emergent or submersed), less than 5% nuisance taxa<br><input type="checkbox"/>                                                                                                                                                                                                   |                                | Mostly expected native plants, but moderate growths (6%-20% of lake) of nuisance macrophytes, or more than 50% of lake covered with plants |                                | Large masses (21%-40%) of nuisance macrophytes (e.g., Hydrilla, hyacinth, cattail, etc.) or algal mats                                          |                                     | Lake choked (>40%) with nuisance macrophytes (duckweed, hyacinth, etc.) or algal mats, or few plants present at all (e.g., plants removed) |  |
|                                                | 20 19 18 17 16                                                                                                                                                                                                                                                                                                        |                                | 15 14 13 12 11                                                                                                                             |                                | 10 9 8 7 6                                                                                                                                      |                                     | 5 4 3 2 1                                                                                                                                  |  |
| <b>Stormwater Inputs</b>                       | Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation<br><input type="checkbox"/>                                                                                                                                                                                                     |                                | Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place                                         |                                | Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place                                      |                                     | Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place                          |  |
|                                                | 20 19 18 17 16                                                                                                                                                                                                                                                                                                        |                                | 15 14 13 12 11                                                                                                                             |                                | 10 9 8 7 6                                                                                                                                      |                                     | 5 4 3 2 1                                                                                                                                  |  |
| <b>Bottom Substrate Quality</b>                | Diverse mixture of sand, detritus, with small amounts of CPOM/mud/muck. SAV may be present<br><input type="checkbox"/>                                                                                                                                                                                                |                                | Mixture of sand or clay and detritus with higher % CPOM/mud/muck content. SAV may be present                                               |                                | Moderate layer of CPOM/ mud/muck, or hardpacked sand only, or moderate algal growth (mats or Chara) on bottom                                   |                                     | Thick deposits of CPOM, or fine detritus and anaerobic muck/mud/silt, or algal growth or nuisance plants (Hydrilla) cover bottom           |  |
|                                                | 20 19 18 17 16                                                                                                                                                                                                                                                                                                        |                                | 15 14 13 12 11                                                                                                                             |                                | 10 9 8 7 6                                                                                                                                      |                                     | 5 4 3 2 1                                                                                                                                  |  |
| <b>Lakeside Adverse Human Alterations</b>      | Very few man-made structures, roads, or other disturbance adjacent to lake (<10%)<br><input type="checkbox"/>                                                                                                                                                                                                         |                                | Moderate disturbance visible (structures, roads or other), 10%-49% lakeside affected                                                       |                                | Many structures, roads or other human disturbance visible (50%-70%) lakeside affected                                                           |                                     | Highly developed or disturbed (>70% of lakeside affected)                                                                                  |  |
|                                                | 20 19 18 17 16                                                                                                                                                                                                                                                                                                        |                                | 15 14 13 12 11                                                                                                                             |                                | 10 9 8 7 6                                                                                                                                      |                                     | 5 4 3 2 1                                                                                                                                  |  |
| <b>Upland Buffer Zone</b>                      | Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer<br><input type="checkbox"/>                                                                                                                                                                                 |                                | 89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer                                                                       |                                | 50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer                                                                         |                                     | < 29% of shoreline with >18m buffer                                                                                                        |  |
|                                                | 20 19 18 17 16                                                                                                                                                                                                                                                                                                        |                                | 15 14 13 12 11                                                                                                                             |                                | 10 9 8 7 6                                                                                                                                      |                                     | 5 4 3 2 1                                                                                                                                  |  |
| <b>Adverse Watershed Land Use</b>              | Score the potential effects from adverse human land uses, based on a continuum of amount and type, with least to most adverse as follows: Native vegetation, Silviculture, Pasture or Citrus, Low Density Residential, Row Crops, Commercial, High Density Residential, Urban, Industrial<br><input type="checkbox"/> |                                |                                                                                                                                            |                                |                                                                                                                                                 |                                     |                                                                                                                                            |  |
|                                                | 20 19 18 17 16                                                                                                                                                                                                                                                                                                        |                                | 15 14 13 12 11                                                                                                                             |                                | 10 9 8 7 6                                                                                                                                      |                                     | 5 4 3 2 1                                                                                                                                  |  |

|                    |                      |                  |  |
|--------------------|----------------------|------------------|--|
| <b>TOTAL SCORE</b> | <input type="text"/> | <b>COMMENTS:</b> |  |
|--------------------|----------------------|------------------|--|

|                                         |                                      |                                                                                                            |
|-----------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------|
| <b>ANALYSIS DATE:</b><br><b>5-23-16</b> | <b>ANALYST:</b><br><b>Shay Armon</b> | <b>SIGNATURE:</b><br> |
|-----------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------|

# LVI Map for LAKE ALLEN, WBID 1463H



Florida Department of Transportation and Florida Department of Natural Resources



Package  
US Airbill

FedEx  
Tracking  
Number

8100 1917 6134

1 From Please print and press hard.

Date 05/23/2016 Sender's FedEx  
Account Number

Sender's  
Name

Company FAEP

Phone (813) 470-5770

Address 5301 N. Telecom Pkwy

City Temple Terrace State FL ZIP 33637

2 Your Internal Billing Reference

First 24 characters will appear on invoice.

3 To

Recipient's  
Name SAMPLE RECEIVING

Phone (850) 245-8085

Company FLORIDA DEP/CHEMISTRY SECTION

Address 2600 BLAIRSTONE RD

We cannot deliver to P.O. boxes or P.D. ZIP codes.

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City TALLAHASSEE

State FL ZIP 32399

0123448864

Leave the packing to the pros at FedEx Office.  
Go to [fedex.com/office](http://fedex.com/office)

FedEx  
ID No. 0215

4 Express Package Service

\*To meet deadlines.

Packages up to 150 lbs.  
For packages over 150 lbs., use the  
FedEx Express Freight US Airbill.

Next Business Day

☐ FedEx First Overnight  
Earliest next business morning delivery to select  
locations. Priority shipments will be delivered on  
Monday unless Saturday Delivery is selected.

☒ FedEx Priority Overnight  
Next business morning. Priority shipments will be  
delivered on Monday unless Saturday Delivery  
is selected.

☐ FedEx Standard Overnight  
Next business afternoon. Saturday  
Delivery NOT available.

2 or 3 Business Days

☐ FedEx 2Day AM  
Second business morning. Saturday  
Delivery NOT available.

☐ FedEx 2Day  
Second business afternoon. Thursday shipments  
will be delivered on Friday unless Saturday  
Delivery is selected.

☐ FedEx Express Saver  
Third business day. Saturday  
Delivery NOT available.

5 Packaging \*Declared value limit \$500.

☐ FedEx Envelope\* ☐ FedEx Pak\* ☐ FedEx Box ☒ FedEx Tube ☐ Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

☐ Saturday Delivery  
NOT available for FedEx Standard Overnight, FedEx 2Day AM, or FedEx Express Saver.

☐ No Signature Required  
No signature may be required for delivery.

☐ Direct Signature  
Someone at recipient's address  
may sign for delivery.

☐ Indirect Signature  
If no one is available at recipient's  
address, someone at a neighboring  
address may sign for delivery for  
residential deliveries only.

Does this shipment contain dangerous goods?  
One box must be checked.  
☐ Yes ☒ No  
Yes: Shipper's Declaration  
Required. Shipper's Declaration  
Not Required.

Restrictions apply for dangerous goods — see the current FedEx Service Guide.

7 Payment Bill to:  
☐ Sender ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

Sender's Acct. No. in Section  
FedEx Acct. No. 4490-2262-9  
Credit Card No.

Total Packages Total Weight Total Declared Value

lbs. \$

Your liability is limited to US\$100 unless you declare a higher value. See back for details. By using this bill you agree to the service conditions on the back of this bill and in the current FedEx Service Guide, including terms that limit our liability.

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Florida Department of Environmental Protection  
Central Laboratory Submittal Form

Customer: SW-DIST

Project ID: SMP

Requester: Judy Ashton

Collected By: Judy Ashton, Ashley StarnesField Report Prepared By: Judy AshtonSampling Agency: FDEP

|                               |  |                                                                           |  |                                                                                                            |  |                                                                                                                      |  |                               |  |
|-------------------------------|--|---------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------|--|-------------------------------|--|
| Location<br><u>CALM LAKE</u>  |  | <input type="checkbox"/> Comp<br><input checked="" type="checkbox"/> Grab |  | Collection (comp begin or grab)<br>Date <u>5-23-16</u> Time <u>11:00</u>                                   |  | Composite end<br>Date _____ Time _____                                                                               |  | Bottle Group(s)<br>(See pg 2) |  |
| Field ID<br><u>STC</u>        |  | Matrix (type, e.g., Salt, Fresh, etc)                                     |  | Diss. Oxygen <u>7.6</u> <input checked="" type="checkbox"/> mg/L <input checked="" type="checkbox"/> % sat |  | Total Res. Chlorine<br><u>100</u> <input checked="" type="checkbox"/> mg/L <input checked="" type="checkbox"/> % sat |  | A                             |  |
| Temp (C) <u>29.3</u>          |  | pH <u>7.3</u>                                                             |  | Sample Depth <u>0.3</u> m                                                                                  |  | Sp. Conductance<br><u>141</u> (umho/cm)                                                                              |  |                               |  |
| Salinity (ppt) <u>0.06</u>    |  | Comments                                                                  |  |                                                                                                            |  |                                                                                                                      |  |                               |  |
| Location<br><u>CALM LAKE</u>  |  | <input type="checkbox"/> Comp<br><input checked="" type="checkbox"/> Grab |  | Collection (comp begin or grab)<br>Date <u>5-23-16</u> Time <u>11:05</u>                                   |  | Composite end<br>Date _____ Time _____                                                                               |  | Bottle Group(s)               |  |
| Field ID<br><u>STC</u>        |  | Matrix (type, e.g., Salt, Fresh, etc)                                     |  | Diss. Oxygen <u>7.6</u> <input checked="" type="checkbox"/> mg/L <input checked="" type="checkbox"/> % sat |  | Total Res. Chlorine<br><u>100</u> <input checked="" type="checkbox"/> mg/L <input checked="" type="checkbox"/> % sat |  | A                             |  |
| Temp (C) <u>29.3</u>          |  | pH <u>7.3</u>                                                             |  | Sample Depth <u>0.3</u> m                                                                                  |  | Sp. Conductance<br><u>141</u> (umho/cm)                                                                              |  |                               |  |
| Salinity (ppt) <u>0.06</u>    |  | Comments                                                                  |  |                                                                                                            |  |                                                                                                                      |  |                               |  |
| Location<br><u>CALM LAKE</u>  |  | <input type="checkbox"/> Comp<br><input checked="" type="checkbox"/> Grab |  | Collection (comp begin or grab)<br>Date <u>5-23-16</u> Time <u>11:15</u>                                   |  | Composite end<br>Date _____ Time _____                                                                               |  | Bottle Group(s)               |  |
| Field ID<br><u>STC</u>        |  | Matrix (type, e.g., Salt, Fresh, etc)                                     |  | Diss. Oxygen _____ <input type="checkbox"/> mg/L <input type="checkbox"/> % sat                            |  | Total Res. Chlorine<br>_____ <input type="checkbox"/> mg/L <input type="checkbox"/> % sat                            |  | A                             |  |
| Temp (C) <u>30.4</u>          |  | pH <u>6.9</u>                                                             |  | Sample Depth _____ m                                                                                       |  | Sp. Conductance<br>_____ (umho/cm)                                                                                   |  |                               |  |
| Salinity (ppt) _____          |  | Comments                                                                  |  |                                                                                                            |  |                                                                                                                      |  |                               |  |
| Location<br><u>LAKE ALLEN</u> |  | <input type="checkbox"/> Comp<br><input checked="" type="checkbox"/> Grab |  | Collection (comp begin or grab)<br>Date _____ Time _____                                                   |  | Composite end<br>Date _____ Time _____                                                                               |  | Bottle Group(s)               |  |
| Field ID<br><u>STC</u>        |  | Matrix (type, e.g., Salt, Fresh, etc)                                     |  | Diss. Oxygen <u>6.7</u> <input checked="" type="checkbox"/> mg/L <input checked="" type="checkbox"/> % sat |  | Total Res. Chlorine<br><u>89</u> <input checked="" type="checkbox"/> mg/L <input checked="" type="checkbox"/> % sat  |  | A                             |  |
| Temp (C) <u>30.4</u>          |  | pH <u>6.9</u>                                                             |  | Sample Depth _____ m                                                                                       |  | Sp. Conductance<br><u>194</u> (umho/cm)                                                                              |  |                               |  |
| Salinity (ppt) <u>0.09</u>    |  | Comments                                                                  |  |                                                                                                            |  |                                                                                                                      |  |                               |  |

Number of Coolers Shipped: 1Shipping Method Per ExpressDate/Time 5-23-16 5:00Relinquished By: Judy Ashton

Received By: \_\_\_\_\_

Date/Time \_\_\_\_\_

|          |              |         |                 |               |               |                                     |   |
|----------|--------------|---------|-----------------|---------------|---------------|-------------------------------------|---|
| Group: A | Bottle Type: | P-1L    | # of Bottles: 2 | Preservative: | ICE           | Enter Number of Bottles Sent to Lab | 4 |
|          | ALKALINITY   |         |                 |               |               |                                     |   |
|          | TURBIDITY    |         |                 |               |               |                                     |   |
|          | W-CL-IC      |         |                 |               |               |                                     |   |
|          | W-COLOR      |         |                 |               |               |                                     |   |
|          | W-F          |         |                 |               |               |                                     |   |
|          | W-SO4-IC     |         |                 |               |               |                                     |   |
|          | W-TDS        |         |                 |               |               |                                     |   |
|          | W-TSS        |         |                 |               |               |                                     |   |
| Group: A | Bottle Type: | BP-1L   | # of Bottles: 2 | Preservative: | ICE           | Enter Number of Bottles Sent to Lab | 4 |
|          | CHLSUITE-W   |         |                 |               |               |                                     |   |
| Group: A | Bottle Type: | P-500ML | # of Bottles: 2 | Preservative: | ICE And H2SO4 | Enter Number of Bottles Sent to Lab | 4 |
|          | W-NH3        |         |                 |               |               |                                     |   |
|          | W-NO2NO3     |         |                 |               |               |                                     |   |
|          | W-S-A-TP     |         |                 |               |               |                                     |   |
|          | W-TKN        |         |                 |               |               |                                     |   |
|          | W-TOC        |         |                 |               |               |                                     |   |
| Group: A | Bottle Type: | P-125ML | # of Bottles: 2 | Preservative: | ICE-FILTR     | Enter Number of Bottles Sent to Lab | 4 |
|          | W-PO4-F      |         |                 |               |               |                                     |   |