FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PLAN FIELD SHEET

January 2020

Meter Passed End of Day CCV [X] Yes [ ] No

WIN Station Name: Phelps Creek 25m S of Pine Ave. **Date:** 11/22/2021

WIN/Field ID: G2CE0246 **WBID:** 2982 **ENR:** - **Latitude:** 28.7493

County: SEMINOLE **Org ID:** 21FLCEN **Longitude:** -81.23

Receiving Body of Water: Middle St. Johns **RQ-** 2021-11-22-39

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
[x] Matt Bearden		x		x	x
[x] Elizabeth Bates	x		x		
[x] Leif Boman					x
[ ]					

Sampling Equipment

[X] Sample Container [ ] Carboy
[ ] Dipper [ ] Van Dorn
[ ] Syringe [ ] Pole

Depth measured with: Secchi
Secchi Equipment ID: Light

Collection Method

[X] **Wading** [ ] **Canoe/Kayak**
[ ] **From Shore** [ ] **Electric Motor**
[ ] **Other** _____ [ ] **Gasoline Motor**

Water Level: [X] Normal [ ] Low [ ] High [ ] Dry [ ] Pooled [ ] Flooded

Meter ID# SHRIMP TRAP

Photos: NO **Flow:** FLOW **Tide:** **Tide Times:** High: Low:

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

SBIO ID Numbers: SBIO 83549 LIMS 2290982

Notes:

Duplicate Sample

Time Zone: EST **Time:** _____ **Field ID:** _____ (WIN ID_DUP)

WIN DMT Activity ID: _____

Blank

Time Zone: _____ **Time:** _____ **Field ID:** _____ (Blank Type_DDMMYYYY)

DI Source: _____ **Location:** _____

DI Type: _____ **Equipment ID:** _____

DI Container (Name/ID): **DI Container Type:**

LIMS EVENT ID: CEN-DIST-2021-11-23-02 **WIN Import ID:** 30306

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 12/6/21 (Initials/Date) **QC Station ID, Field Parameters In LIMS DMT:** EB 12/9/21 (Initials/Date)

Scan/Save Field Sheets KWM 12/29/21 (Initials/Date) **Migrate Data to WIN:** KWM 12/29/21 (Initials/Date) **Verify Data In WIN:** _____ (Initials/Date)

RQ-2021-11-22-39
Customer: WQAP
Project ID: SMP

Collected By: Matt Bearden, Elizabeth Bates
Field Report Prepared By: Matt Bearden
Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID: G2CE0246

Location: Phelps Creek 25m S of Pine Ave.

Comments:

Matrix: Fresh

(Check one) ☒ GRAB ☐ COMPOSITE

Date	Time	DO (mg/L)	DO (%SAT)	Temp. (C⁰)	pH	Sample Depth (m)	Secchi Disk (m)	Total Depth (m)	Sp COND (µmhos/cm)	Salinity (PPTh)
	1215 EST	7.95	89.7	21.3	7.41	0.15	0.3 ☒ VOB (S)	0.3	293.7	0.14
11/22/2021										
	EST									

Parameter Suite	Parameter Methods	Preservation	pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)	☐ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☐ Ice ☐ H_2SO_4*	☐ <2		
	Lot # **Exp:**				
Metals (P-500ML)	☐ W-ICPMS ☐ W-ICP ☐ W-HARD	☐ Ice ☐ HNO_3*	☐ <2		
	Lot # **Exp:**				
Filtered Nutrients (P125ML)	☐ W-PO4-F ☐ Field Filtered 0.45 µm Filter	☐ Ice			
	Filter Lot #				
	Syringe Lot #				
Chlorophyll (BP-1L)	☐ CHLSUITE-W	☐ Ice			
Physical/Aggregate (Fresh) (P-1L)	☐ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☐ Ice			
Physical/Aggregate (Marine) (P-1L)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates (PJ-2L)	☐ MI-FW-QLDC **Formalin Lot #**	☐ Formalin			
Periphyton (PT-50ML)	☐ ALGAE-ID	☐ Ice			
Microbiology (Contract Lab Bottle)	☒ E Coli ☐ F Coli ☐ Enterococci ☐ Contract Lab	☒ Ice		2	A
Molecular (QPCR-P-500ML)	☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD ☐	☐ Ice			
Tracers (BG-500ML)	☐ W-E8321-DI ☐ W-E8321-MS	☐ Ice			
Pesticides (BG-500ML) (BG-1L)	W-E8321-DI WE8321-MS W-PSNP-TQ W-CT-CL-R W-PCL-TQ-R W-CARB-AA (5 ml of MCAA** Buffer Solution)	☐ Ice			
Phytoplankton/Periphyton	DTY-QN-C PKD-QN-BV	☐ Ice			

Name:
Matt Bearden
Elizabeth Bates

Signature:

Date: 11/22/2021

*2.0 ml of Preservative used unless noted otherwise.
**MCAA: Monochloroacetic acid buffer solution

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

SAMPLE ID _____ ORG ID _____ LATITUDE 28.7493

COUNTY Seminole STORET # 62CE0246 LONGITUDE -81.23203

DATE 11/22/21 TIME _____ SAMPLING AGENCY C ROC

SITE NAME Phelps Creek 25m S of Pine Way

FIELD ID/NAME _____ RECEIVING BODY OF WATER Lake Jesup

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)
15		10		50			Air Port 25

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 : 6-12 Right Bank : 12-16

Hydrologic Modification Score (per FT 3101) _____

High Water Mark: 2.0 (m) + 0.3 (present depth) = 2.3 (above bed)

Artificially Impounded ☐ Yes ☒ No

Typical Width (m) Depth (m)/Velocity (m/sec) Transect

5 m wide

_____ m/s	0.14 m/s	_____ m/s
_____ m deep	0.3 m deep	_____ m deep

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

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

Sand Smothering:	None ☐	Slight ☐	Moderate ☒	Severe ☐	
Silt Smothering:	None ☐	Slight ☐	Moderate ☐	Severe ☒	
Algae Smothering:	None ☒	Slight ☐	Moderate ☐	Severe ☐	

SUBSTRATE TYPE

Assessment Tool: ☐ SCI ☐ RPS ☐ LVS ☐ LCI ☐ BioRecon

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)	0.2	0	
Undercut Banks / Roots	0.07 ~~0.07~~		
Leaf Packs or Mat			
Aquatic Vegetation	0.07		
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 ~~(%)~~ mg/l	Cond. (UMHO/CM)	Salinity (PPT)
Top :	0.15	21.3	7.41	89.7	7.95	293.7	0.14
Mid:	/	/	/	/	/	/	/
Bottom	/	/	/	/	/	/	/

SECCHI (M) 0.3 ☒ VOB

TOTAL DEPTH 0.3

Meter ID: Shrimp Trap

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: N/A Exp: _____

Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) ☒ _____

Algae Sample Taken? ☐ Yes ☒ No

Sample Preserved? ☐ Yes ☒ No

Lot Number: N/A 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) ☒ Canal

AMBIENT FIELD CONDITIONS / NOTES:

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

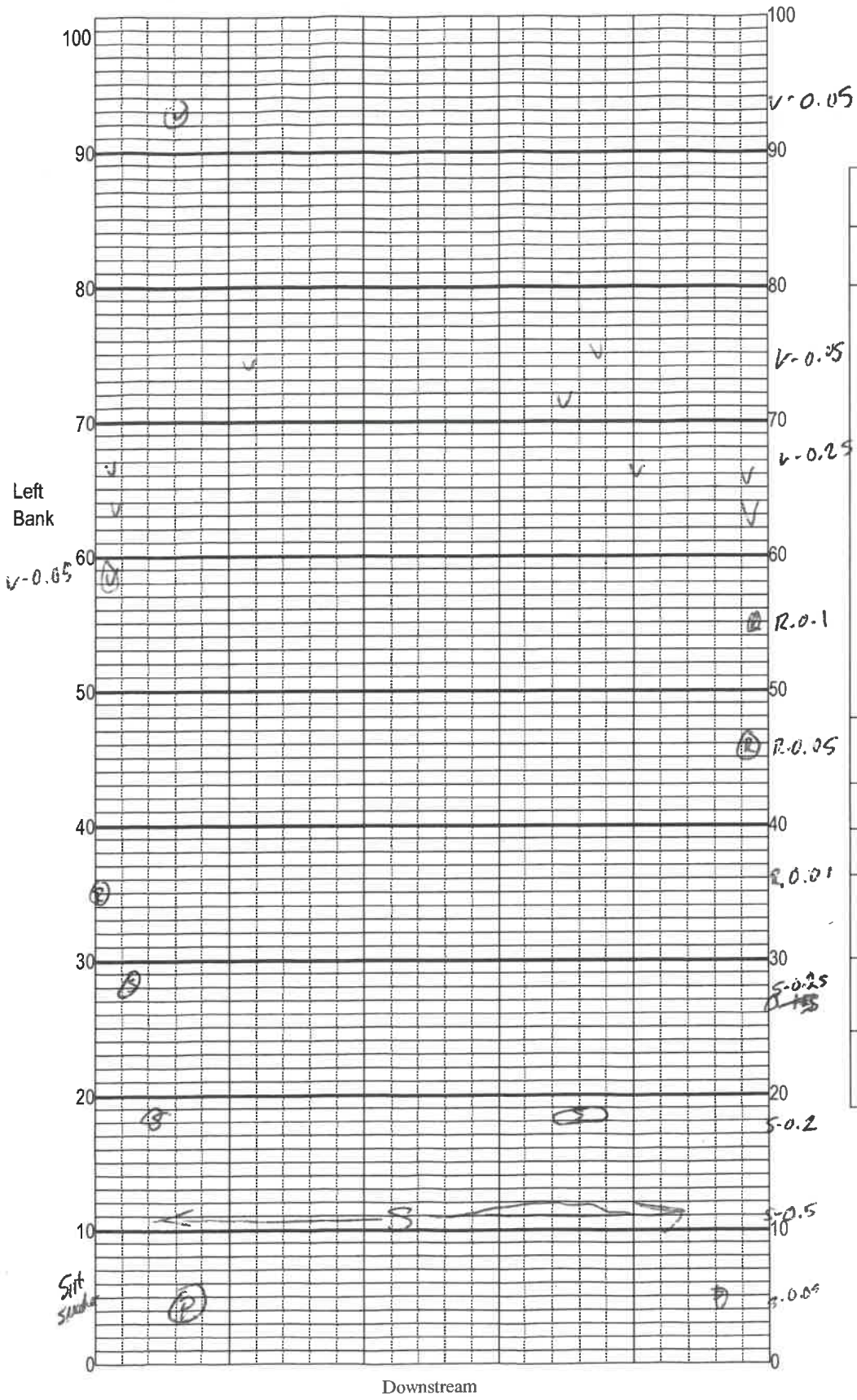
SAMPLING TEAM Matthew Bearden Liz Bates

SIGNATURE : _____ DATE : 11/22/21

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: Phelps Creek 25m S of Pine Way

Date: 11/22/21

Sampler: M. Bearden, L. Bates

100 m: Latitude	28° 44' 57.78"
Longitude	-81° 13' 55.62"
0 m: Latitude	28° 44' 54.98"
Longitude	-81° 13' 55.13"

Substrates: Code key, draw proportionate habitat abundance. %

S	Snags	____
R	Roots/undercut banks	____
	Leaf Packs (or mats)	____
V	Aquatic Macrophytes	____
	_____	____
	_____	____
1	Pools	total # observed = ____
		# range expected = ____

Average width 5M m

Average depth 0.5 m

Velocity measured at 50 meter mark. 7 sec

WQ & chemistry taken at 100 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:

Site experienced heavy silt & sand smothering. Bottom was very shifty & anaerobic.

S - 1.0

V - 0.35

R - 0.16

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

PUT STICKER UP ^ HERE	WIN STATION NUMBER: see sticker	DATE (MM/DD/YY):	SAMPLING AGENCY:
Phelps Creek 25m S of Pine Way	G2CE0246	11/22/21	FDEP - CROC ~~FDEP SW ROC~~
FIELD ID/NAME: " "	COUNTY: Seminole	LOCATION: Phelps Creek	RECEIVING BODY OF WATER: Lake Jesup

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 2	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed); rock] 20 19 18 17 16	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags) 15 14 13 12 11	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed 10 9 8 7 6	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered 5 4 3 (2) 1
Substrate Availability 1	Greater than 30% major productive habitat present at site 20 19 18 17 16	16% to 30% major productive habitat, by aerial extent 15 14 13 12 11	6% to 15% major productive habitat 10 9 8 7 6	Less than 5% major productive habitat 5 4 3 2 (1)
Water Velocity 12	Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec ≥0.33 0.31 0.29 0.27 >0.25 20 19 18 17 16	Max. observed at typical transect: >0.1 to 0.25 m/sec 0.25 0.21 0.17 0.13 >0.1 15 14 13 (12) 11	Max. observed at typical transect: 0.05 to 0.1 m/sec 0.1 0.09 0.07 0.06 0.05 10 9 8 7 6	Max. observed at typical transect: <0.05 m/sec; or spate occurring: > 1 m/sec <0.05 0.04 0.03 0.01 <0.01 5 4 3 2 1
Habitat Smothering 3 Primary Score 18	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. 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. 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). 10 9 8 7 6	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation. 5 4 (3) 2 1
Secondary Habitat Components **Artificial Channelization** 5	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. 20 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered. 15 14 13 12 11	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area. 10 9 8 7 6	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks. (5) 4 3 2 1
Bank Stability Right Bank 3 Left Bank 1	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. 10 9	Only meets 2 of the 3 requirements for optimal bank stability. 8 7 6	Only meets 1 of the 3 requirements for optimal bank stability. 5 4	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas. (3) 2 (1)
Riparian Buffer Zone Width Right Bank ~~7~~ 5 Left Bank ~~5~~ 3	Width of vegetation greater than 18 m 10 9	Width of vegetation >12 to 18m 8 (7) 6	Width of vegetation 6 to 12 m. human activities close to system (5) 4	Less than 6 m of buffer zone due to intensive human activities (3) 2 1
Riparian Zone Vegetation Quality Right Bank 4 Left Bank 3 Secondary Score ~~28~~ 28	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. 10 9	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed. 8 7 6	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious. 5 (4)	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). (3) 2 1

~~40~~ 46 **TOTAL SCORE**

Date:	Analyst:	Signature:
11/22/21	Matthew Bearden & Liz Bates	MB

62-160.800, F.A.C.

Revision Date: March 1, 2014