

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV☒ Yes ☐ No

WIN Station Name:	SJR upstream of Lake Helen Blazes				Sample Date:	7/12/2022	
WIN / Field ID:	G3CE0018	ORG ID:	21FLCEN	ENR:	-		
County:	BREVARD	WBID:	2893R	STREAM			
Receiving Body of Water:	Lake Helen Blazes				RQ-	2022-02-21-21	

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Leif Boman		x		x	x
Victoria Schwartz	x		x		

Sampling Equipment			
x	Sample Container	Carboy	
	Dipper	Van Dorn	
x	Syringe	Pole	
Syringe Lot# 1335260		Filter Lot# 17413308	
Secchi Equipment ID:		Knothead	
Collection Method			
	Wading	Canoe/Kayak	
	From Shore	Electric Motor	
		x	Gasoline Motor
Depth Measured With Secchi			

Water Level:	Low
Flow:	Flowing
Matrix:	Fresh
Tide Stage:	
High Tide:	
Low Tide:	
Photos:	Yes
Meter ID:	Craw Daddy

Time Zone	Time	Total Depth (m)	Sample Depth (m)	DO (mg/L)	DO (%SAT)	Temp. (°C)	pH	Secchi Disk (m)	Sp COND (µmhos/cm)	Salinity (PPTth)
EST	1007	0.8	0.3	3.46	45.5	29.4	7.02	0.4	692	0.33

Biological Samples Collected: HA

SBIO Visit ID: 85137 HA ID: RPS ID: Macrophyte ID: LIMS ID: 2340984

Parameter Suite	Parameter Methods (LIMS Test Codes)	Preservation				
		Type	Lot#	Expiration Date	pH Check	
Microbiology	E. coli	ICE				
Chlorophyll	CHLSUITE-W	ICE				
Physical/Aggregate Nutrients	ALKALINITY, TURBIDITY, W-F, W-TSS	ICE				
Filtered Nutrients	W-CL-IC, W-COLOR, W-SO4-IC, W-TDS	ICE				
Acid Preserved Nutrients	W-PO4-F Field Filtered 0.45 µm Filter	ICE				
Metals	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	ICE	H2SO4*	132275	12/7/22	H2SO4 pH<2
Organics (LC)						
Macroinvertebrates						
Organics (GC)						
Molecular						
Periphyton						
Phytoplankton						
BOD						
Other(s)						
Field Comments:	Sunny. Sampled via airboat					
Comments on COC:						
Relinquish Date:	07/12/2022	Signature:				

LIMS EVENT ID: CEN-DIST-2022-07-13-02

WIN Import ID: 35387

Enter Field Parameters, Verify Station ID in LIMS DMT: KWM 8/9/22

QC Station ID, Field Parameters in LIMS DMT: EB 8/11/22

Save Field Sheets on Network: KWM 9/9/22 (Initials/Date)

Migrate Data to WIN: KWM 9/9/22 (Initials/Date)

(Initials/Date)

(Initials/Date)

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

SAMPLE ID _____ ORG ID _____ LATITUDE 27.99938
 COUNTY Breward STORET # _____ LONGITUDE -80.79207
 DATE 7/12/22 TIME 10:07 SAMPLING AGENCY 212 CEN
 SITE NAME SJR upstream of Lake Helen Blazes
 FIELD ID/NAME G3CE0018 RECEIVING BODY OF WATER Lake Helen Blazes

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>100</u> Silviculture _____ Field/Pasture _____ Agricultural _____ Residential _____ Commercial _____ Industry _____ Other (Specify) _____							Landscape Development Intensity Index (LDI) _____
Local Watershed Erosion (select one): ☒ None ☐ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution: ☒ No evidence ☐ Slight ☐ Moderate ☐ Heavy							Typical Width (m) Depth (m)/Velocity (m/sec) Transect <u>7 sec</u> <u>15</u> <u>1.9</u> m wide
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>718</u> Right Bank: <u>>18</u>				Hydrologic Modification Score (per FT 3101) <u>3</u>		_____ m/s <u>0.14</u> m/s _____ m/s	
High Water Mark: <u>1.2</u> + <u>0.8</u> = <u>2.0</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☒ Yes ☒ No <u>VS</u>		_____ m deep <u>0.8</u> m deep _____ m deep	
Artificially ☐ No ☒ Mostly recovered, more sinuous Channelized: ☐ Some recovery ☐ Recent, severe				Canopy Cover % ☒ Open ☐ Lightly Shaded (11-45%) ☐ Heavily Shaded ☐ Moderate Shaded (46-80%)			

SEDIMENT / SUBSTRATE

Sediment Oils ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse		Sediment Odors ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ Other (Specify): _____		Smothering of Substrates 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		WATER QUALITY			
Woody Debris (Snags) _____ Undercut Banks / Roots _____ Leaf Packs or Mat _____ Aquatic Vegetation _____ Rock or Shell Rubble.. _____ Sand..... _____ Mud / Muck / Silt _____ Other _____ Other _____		Depth (M) <u>0.3</u> Temp. (°C) <u>29.4</u> pH (SU) <u>7.02</u> D.O. (MG/L) <u>3.46</u> D.O. Sat (%) <u>45.5</u> Cond. (UMHO/CM) <u>692</u> Salinity (PPT) <u>0.33</u> SECCHI (M) <u>0.4</u> Top: _____ Mid: _____ Bottom: _____ Meter ID: <u>Craw Daddy</u>			
% Coverage _____ # Times Sampled _____ # Times Sampled _____		Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐		Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐	
Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: _____ Exp: _____		Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) ☐		Clarity Clear ☐ Slightly Turbid ☐ Turbid ☒ Opaque ☐	
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☒ ☐ ☐ ☐ Fish: ☐ ☐ ☒ ☐ Aquatic Plants: ☐ ☒ ☒ ☐ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐		System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐		AMBIENT FIELD CONDITIONS / NOTES: <u>Sunny</u> <u>Sampled via airboat</u> <u>HA only</u> <u>Lake Washington impoundment breach</u> <u>low water levels</u> ☒ The antecedent hydrologic conditions have been met to my best knowledge.	
SAMPLING TEAM <u>Leif Boman + Victoria Schwartz</u>		SIGNATURE: <u>Leif Boman</u>		DATE: <u>7/12/22</u>	

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

SAMPLING AGENCY: <u>21FCEN</u>		STORET STATION NUMBER:	DATE (MM/DD/YY): <u>7/12/22</u>	RECEIVING BODY OF WATER: <u>Lake Helen Blazes</u>
REMARKS: <u>via airboat</u>	COUNTY: <u>Brevard</u>	LOCATION: <u>SJR upstream of Lake Helen Blazes</u>		FIELD ID/NAME: <u>G3CE0018</u>

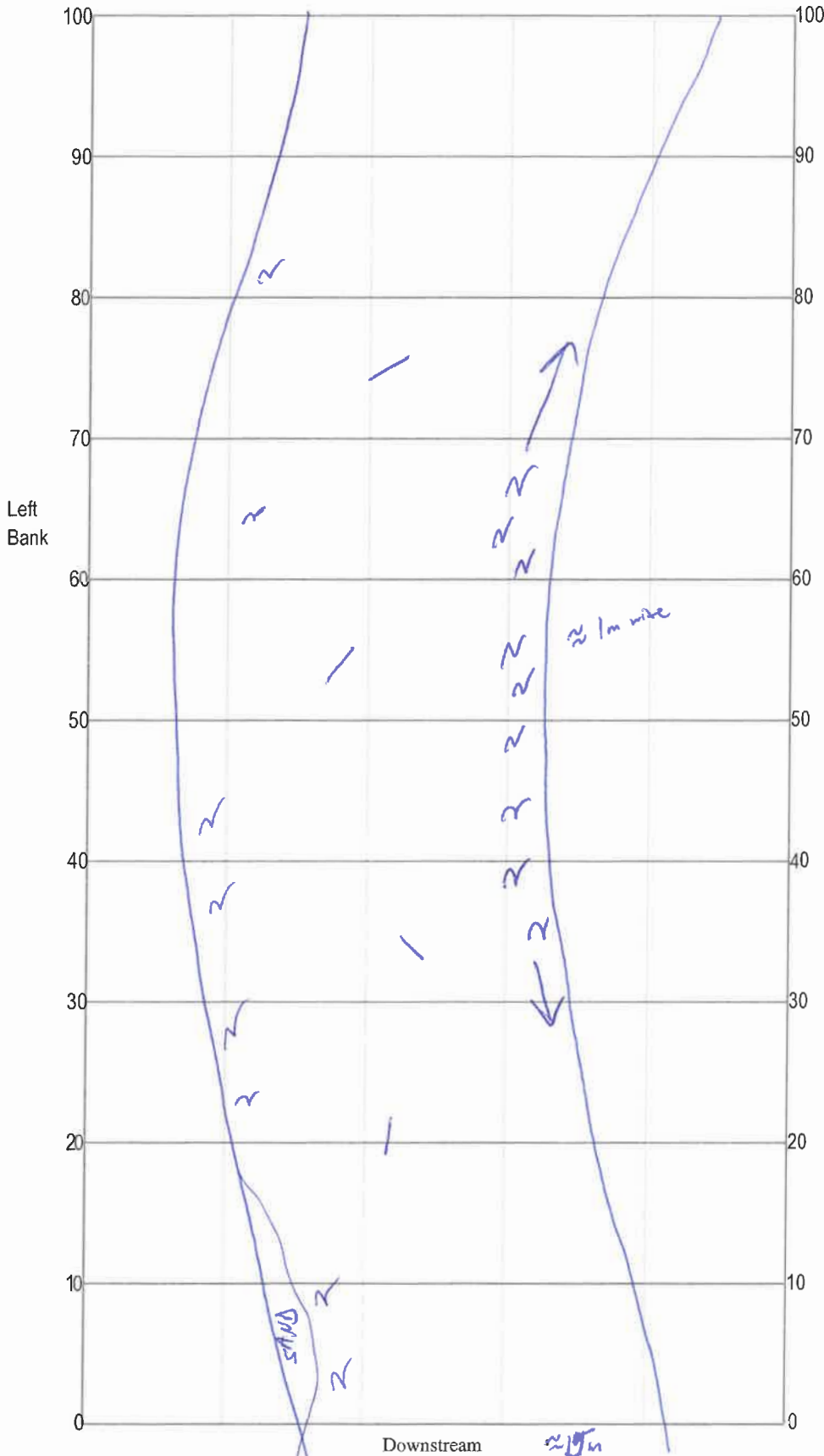
Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more major productive habitats present (snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock)	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags)	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered
Substrate Diversity <u>6</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>1</u>	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 <u>0.8</u> 5 4 3 2 1
Water Velocity <u>13</u>	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 <u>7 sec. 0.1438</u> 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 <u>8</u> Primary Score <u>28</u>	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. 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	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks.	Good sinuosity within old channelized area. Evidence of dredging or straightening in the past (>25 yrs) but mostly recovered.	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area.	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks.
Artificial Channelization <u>15</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the woody root zone with few raw, eroded areas.	Only meets 2 of the 3 requirements for optimal bank stability.	Only meets 1 of the 3 requirements for optimal bank stability.	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the woody root zone with raw, eroded areas.
Right Bank <u>10</u> Left Bank <u>10</u>	10 9 8 7 6 <u>10 9</u>	8 7 6	5 4	3 2 1
Riparian Buffer Zone Width	Width of vegetation greater than 18 m	Width of vegetation >12 to 18m	Width of vegetation 6 to 12 m. human activities close to system	Less than 6 m of buffer zone due to intensive human activities
Right Bank <u>10</u> Left Bank <u>10</u>	10 9 <u>10 9</u>	8 7 6	5 4	3 2 1
Riparian Zone Vegetation Quality	Over 80% of riparian surfaces consist of normal, expected plant community for given sunlight & habitat conditions (e.g., native plants; tree, shrub, and forbs represented, if appropriate). Minimal disturbance.	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed.	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious.	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions).
Right Bank <u>10</u> Left Bank <u>10</u> Secondary Score <u>75</u>	10 9 <u>10 9</u>	8 7 6	5 4	3 2 1

103

TOTAL SCORE

Date: <u>7/12/22</u>	Analyst: <u>Leif Bonny/Victoria Schwartz</u>	Signature: <u>[Signature]</u>
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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: SSR upstream of Lake Helen Blazes
Date: 7/12/22
Sampler: Leif Boman + Victoria Schuler

100 m: Latitude _____	Longitude _____
0 m: Latitude _____	Longitude _____
Substrates: Code key, draw proportionate habitat abundance.	
☒ Snags	<u>13%</u> <u>21</u> <u>2</u> <u>2 m²</u>
☐ Roots/undercut banks	_____
☐ Leaf Packs (or mats)	_____
☒ Aquatic Macrophytes	<u>66%</u> <u>41</u> <u>510</u> <u>10 m²</u>
☐ _____	_____
☐ _____	_____
☐ Pools	total # observed = _____ # range expected = _____
Average width <u>15</u> m	
Average depth _____ m	
Velocity measured at _____ meter mark.	
WQ & chemistry taken at _____ 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:

- Aquatic veg. mostly *Pistia stratiotes*
- water level low
- Silt Smothering

1500 m²
12 m² invertebrate habitat
10 m² total veg