



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV

☒ Yes / ☐ No

WIN Station Name:		Cedar Creek above Patricia Ave.				Sample Date:		9/21/2022	
WIN / Field ID:	G5SW0147	ORG ID:	21FLTPA	ENR:		Latitude:	28.03408		
County:	Pinellas	WBID:	1556A	STREAM	3F	Longitude:	-82.77594		
Receiving Body of Water:		Clearwater Harbor North				RQ-	2022-09-19-14		

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Ben Paswater	x		x		
Kevin Grace		x		x	x

Sampling Equipment			
x	Sample Container	Carboy	
	Dipper	Van Dorn	
	Syringe	Pole	
Syringe Lot# 1145497		Filter Lot# 17232873	
Secchi Equipment ID:		Secchi #3	
Collection Method			
x	Wading	Canoe/Kayak	
	From Shore	Electric Motor	
		Gasoline Motor	
Depth Measured With		Secchi	

Water Level:	Normal
Flow:	Flowing
Matrix:	Fresh
Tide Stage:	
High Tide:	
Low Tide:	
Photos:	Yes
Meter ID:	Leia

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	1430	0.7	0.3	6.24	79.1	27.5	7.3	0.7	741	0.36
								VOB (s)		

Biological Samples Collected: HA LVS RPS

SBIO Visit ID: 85862 **HA ID:** 18046 **RPS ID:** 9998 **Macrophyte ID:** 12331 **LIMS Sample ID Entered Into The Macrophyte Module:** 2358808

Parameter Suite	Parameter Methods (LIMS Test Codes)			Preservation						
				Type	Lot#	Expiration Date	pH Check			
Microbiology	E. coli	Contract Lab	Benchmark	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			ICE						
Metals	Field Filtered 0.45 µm Filter			ICE						
Organics (LC)	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP			ICE	H2SO4*	SA1308030	12/01/2022			
Macroinvertebrates	W-E8321-DI			ICE	MCAA***	128343	2/4/2023			
Organics (GC)	W-E8321-MS			Ice	*2.0 ml of H2SO4 Used Unless Noted Otherwise ***5 ml MCAA (Monochloroacetic Acid Buffer Solution)					
Molecular	W-CT-CI-R									
Periphyton	W-PSNP-TQ									
Phytoplankton	W-PCL-TQ-R									
BOD	W-TR-SQ-R									
Other(s)										
Field Comments:										
Comments on COC:	Microbiology sample(s) submitted to contract laboratory.									
Relinquish Date:	09/21/2022	Signature:								

LIMS EVENT ID: SW-DIST-2022-09-22-01 WIN Import ID: 37067

Enter Field Parameters, Verify Station ID In LIMS DMT: DM 9/22/2022 QC Station ID, Field Parameters In LIMS DMT: MM 12/08/2022

Save Field Sheets on Network: MM 12/08/2022 (Initials/Date) Migrate Data to WIN: MM 12/08/2022 (Initials/Date)

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

Site Name:

Cedar Creek above Patricia Ave

STORET STATION
NUMBER: see stickerDATE (MM/DD/YY):
see bottom of page

SAMPLING AGENCY:

FDEP SWROC

FIELD ID/NAME: see sticker ^

LOCATION:
see sticker ^

COUNTY:

Pineallas

RECEIVING BODY OF WATER:

Gulf of Mexico

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>3</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 <u>3</u> 2 1
Substrate Availability <u>14</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 <u>14</u> 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 <u>7</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 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 <u>7</u> 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>6</u> ----- Primary Score <u>30</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 <u>6</u>	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 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>3</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 <u>3</u> 2 1
Bank Stability Right Bank <u>6</u> Left Bank <u>6</u>	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the root zone with few raw, eroded areas. 10 9	Only meets 2 of the 3 requirements for optimal bank stability. LR 8 7 <u>6</u>	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 <u>4</u> Left Bank <u>3</u>	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 <u>4</u>	Less than 6 m of buffer zone due to intensive human activities <u>3</u> 2 1
Riparian Zone Vegetation Quality Right Bank <u>3</u> Left Bank <u>3</u> ----- Secondary Score <u>28</u>	Over 80% of riparian surfaces consist of normal, expected plant community for given sunlight & habitat conditions (e.g., native plants; tree, shrub, and forbs represented, if appropriate). Minimal disturbance. 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). <u>3</u> 2 1

58 TOTAL SCORE

Date: 9/21/2022

Analyst: Ben Paswater, and

Signature: Ben Paswater

Kevin Grace

Site Name:

Cedar Creek above Patricia Ave

21FLTPA

LATITUDE

LONGITUDE

SAMPLING AGENCY FDEP SW ROC

RECEIVING BODY OF WATER

Gulf of Mexico

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category):								Landscape Development Intensity Index (LDI)	
Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industry	Other (Specify)		
5				90	5				
Local Watershed Erosion (select one): ☐ None ☒ Slight ☐ Moderate ☐ Heavy								Typical Width (m) Depth (m)/Velocity (m/sec) Transect	
Local Watershed NPS Pollution: ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy								2 m wide	
Width of Riparian Vegetation (m) on Each Buffer Side				Hydrologic Modification Score (per FT 3101)					
Left Bank: 3		Right Bank: 4		7					
High Water Mark: 1.5 + 0.7 = 1.2				Artificially Impounded					
(m) (above present water level) (present depth) (above bed)				☒ Yes ☐ No					
Artificially ☐ No ☐ Mostly recovered, more sinuous				Canopy Cover %					
Channelized: ☐ Some recovery ☒ Recent, severe				☐ Open ☐ Lightly Shaded (11-45%)					
				☐ Heavily Shaded ☒ Moderate Shaded (46-80%)					

SEDIMENT / SUBSTRATE

Sediment Oils			Sediment Odors			Smothering of Substrates					
☒ Absent ☐ Slight			☒ Normal ☐ Sewage ☐ Petroleum			Sand Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐					
☐ Moderate ☐ Profuse			☐ Chemical ☐ Anaerobic			Silt Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐					
			☐ Other (Specify):			Algae Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐					
SUBSTRATE TYPE			WATER QUALITY								
Assessment Tool: ☐ SCI ☒ RPS ☒ LVS			Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M)								
☐ LCI ☐ BioRecon			Top: .3 22.5 7.3 6.24 79.1 741 .36 .7								
Woody Debris (Snags)			Mid: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☒ VOB								
Undercut Banks / Roots			Bottom: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ TOTAL DEPTH								
Leaf Packs or Mat			Meter ID: <u>Lein</u>								
Aquatic Vegetation			Water Odors Normal ☒ Petroleum ☐						Water Surface Oils Normal ☒ Sheen ☐		
Rock or Shell Rubble			Sewage ☐ Chemical ☐ Other ☐						Globs ☐ Slick ☐ Other ☐		
Sand			Water Sample Taken? ☒ Yes ☐ No						Color Tannic ☐ Green (Algae) ☐		
Mud / Muck / Silt			Sample Preserved? ☒ Yes ☐ No						Clear ☒ Other (Specify) ☐		
Other			Lot Number: see Water Datasheet								
Other			Algae Sample Taken? ☐ Yes ☒ No						Clarity Clear ☒ Slightly Turbid ☐		
			Sample Preserved? ☐ Yes ☐ No						Turbid ☐ Opaque ☐		
			Lot Number: Exp:								
ABUNDANCE			System Type: Stream ☐ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☒ Canal								
Not Obs. Rare Common Abundant			AMBIENT FIELD CONDITIONS / NOTES:								
Periphyton: ☐ ☐ ☒ ☐			☒ The antecedent hydrologic conditions have been met to my best knowledge.								
Fish: ☐ ☐ ☒ ☐											
Aquatic Plants: ☐ ☒ ☐ ☐											
Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐											
SAMPLING TEAM			SIGNATURE:						DATE:		
Ben Pas water, Kevin Grace			Be Paswater						9/21/2022		

Time
1430

Stream

L

(H)

Site Name:

Cedar Creek above Patricia Ave

L

R

100

Sl.

%

Armor

90

Sl.

%

Armor

80

Sl.

%

Armor

70

Sl.

%

Armor

60

Sl.

%

Armor

50

Sl.

%

Armor

40

Sl.

%

Armor

30

Sl.

%

Armor

20

Sl.

%

Armor

10

Sl.

%

Armor

0

Downstream

Location:

Date:

Samplers:

Substrates: Code key, draw proportionate habitat abundance. %



Snags

few



Roots/undercut banks



Leaf Packs (or mats)



Macrophytes

few



Rocks

25



Total observed 0



Pools Range expected 4-8

Velocity measured at 0.50, 100 meter mark.

WQ & chemistry taken at 0 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.

1 sec per 1 m	1m/s	sec	m/s
2	0.5	12	0.08
3	0.33	13	0.076
4	0.25	14	0.071
5	0.2	15	0.066
6	0.16	16	0.062
7	0.14	17	0.058
8	0.12	18	0.055
9	0.11	19	0.052
10	0.1	20	0.052
11	0.09	21	0.047
22	0.045	NO	FLOW

Prod. hab	1	2	3	4	5
Sweeps (Maj)	10	7	5	4	3
Sweeps (Min)	10	6	5	4	5

2m

Site Name:

Cedar Creek above Patricia Ave

Rapid Periphyton Survey Field Sheet

Date:

9/21/22

Investigators:

BP KG

STORET Station Number:

12

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1				60	1			
	2					2			
	3					3			
	4					4			
	5			85		5			92
	6					6			
	7					7			
	8					8			
	9					9			
10	1				70	1			
	2					2			
	3					3			
	4					4			
	5			96		5			96
	6					6			
	7					7			
	8					8			
	9					9			
20	1				80	1			
	2					2			
	3					3			
	4					4			
	5			96		5			29
	6					6			
	7					7			
	8					8			
	9					9			
30	1				90	1			
	2					2			
	3					3			
	4					4			
	5			84		5			28
	6					6			
	7					7			
	8					8			
	9					9			
40	1				100	1			
	2					2			
	3					3			
	4					4			
	5			66		5			94
	6					6			
	7					7			
	8					8			
	9					9			
50	1					1			
	2					2			
	3					3			
	4					4			
	5			96		5			
	6					6			
	7					7			
	8					8			
	9					9			

Secchi depth

Estimated?

points ranked 4-6

total points assessed

% points ranked 4-6

Check accompanying data collected at same site/date.

Algal mat sample

Linear Veg Survey

Habitat Assessment

SCI/Biorecon

Water sample

RQ-

Algal Thickness Rank

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

Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached.

Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank.

Record canopy cover as the number of small densiometer quadrants (out of 96) that HAVE canopy cover. Measure facing upstream at point 4, 5, or 6.

Collect algal mat sample following DEP SOP FS 7240 if the percentage of total sampled points with a thickness rank of 4, 5, or 6 is >20%.

G5SW0147

NEAR VEGETATION SURVEY FIELD SHEET

9/21/22

Site Name:

Cedar Creek above Patricia Ave

County:

Signature: _____

Storet Number:

Instructions: Note taxa growing in the water with a checkmark present, "D" if dominant, and "C" if codominant (dominance only if 1 m² of taxa present). Note in the boxes below if no dominant are selected, and note total macrophyte abundance rank for each section. Only the most common taxa are listed, so use blank spaces for additional taxa names.

HERBACEOUS SPECIES	Meter Mark										Specimen collected (check)		Meter Mark										Specimen collected (check)
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100			0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	
Alternanthera philoxeroides											Micranthemum glomeratum												
Bacopa caroliniana											Micranthemum umbrosum												
Bacopa monnieri											Myriophyllum aquaticum												
Bidens mitis											Najas guadelupensis												
Boehmeria cylindrica											Nuphar luteum												
Centella asiatica											Orontium aquaticum												
Ceratophyllum demersum											Panicum hemitomon												
Chara											Panicum repens												
Cicuta maculata											Panicum rigidulum												
Cladium jamaicense											Pistia stratioides												
Colocasia esculenta											Polygonum glabra												
Commelina diffusa											Polygonum hydropiperoides												
Commelina virginica											Polygonum punctatum												
Crinum americanum											Pontedaria cordata												
Diodia virginiana											Potamogeton illinoensis												
Eichhornia crassipes											Ruellia simplex												
Eleocharis (wispy viviparous)											Sacciolepis striata												
Hydrilla verticillata											Sagittaria kurziana												
Hydrocotyle											Sagittaria lancifolia												
Hygrophila polysperma											Sagittaria latifolia												
Hymenocallis											Salvinia minima												
Lachnanthes caroliniana											Samolus parviflora												
Landoltia punctata											Saururus cernuus												
Lemna											Sparganium americanum												
Limnophila sessiflora											Typha												
Ludwigia leptocarpa											Vallisneria americana												
Ludwigia palustris											Zizania aquatica												
Ludwigia peruviana																							
Ludwigia repens																							
Luziola fluitans																							
Fentialis																							
Fentinalis																							
If no Dominant or Co-Dominant were selected, indicate with "X"																							
Indicate % cover macrophytes per section																							
0-5% Macrophyte Coverage																							
>5 and ≤10% Macrophyte Coverage																							
>10 and ≤25% Macrophyte Coverage																							

Benchmark EnviroAnalytical, Inc
1711 12th Street East
Palmetto, FL 34221
941-723-9986
941-723-6061 Fax

PO#_C00EF5

Client Information: **DEP: SW-DIST**

Address: 13051 N. Telecom Parkway
Tampa FL 33604

Phone # 815-470-5878

Report to: benjamin.paswater@dep.state.fl.us
DEP-Overflomicro@dep.state.fl.us

Invoice to: FDEP Micro Overflow

Project Name: **RQ-2022-09-19-14**

Laboratory Submission #

22091311

Sample Name	Sample Type / Sample Matrix	Collection		Container		Preservative	Parameters for Analysis	Laboratory Sample #
		Date	Time	Qty	Capacity	Type		
G5 SW 0129	SW	9/21/22	1310	1	250mL	P	Plain (on Ice)	E-Coli 1
G5 SW 0147	SW	9/21/22	1430	1	250mL	P	Plain (on Ice)	E-Coli 2
	SW				250mL	P	Plain (on Ice)	
	SW				250mL	P	Plain (on Ice)	
	SW				250mL	P	Plain (on Ice)	
	SW				250mL	P	Plain (on Ice)	
	SW				250mL	P	Plain (on Ice)	

1. "Sample Type" is used to indicate whether the sample is a grab (G) or composite (C).
2. "Container Type" is used to indicate whether the sample is being collected in a grab (G) or composite (C).
3. "Sample Matrix" is used to indicate whether the sample is being collected in a grab (G) or composite (C).
4. "Preservative" is used to indicate whether the sample is being collected in a grab (G) or composite (C).
5. "Quantity" is used to indicate the volume of sample collected.
6. "Capacity" is used to indicate the volume of the container.
7. "Type" is used to indicate the type of preservative used.
8. "Parameters for Analysis" is used to indicate the parameters to be analyzed.
9. "Laboratory Sample # " is used to indicate the laboratory sample number.

Laboratory Sample Acceptability:
Temperature: 0.8°C

1	Collected / Relinquished By:	Date	Time	Received By:	Date	Time
	<i>Nathan Haskins</i>	9/21/22	1554	<i>Nathan Haskins</i>	9/21/22	1554
2	Relinquished By:	Date	Time	Received By:	Date	Time