FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

STRATEGIC MONITORING PLAN FIELD SHEET

January 2022

Meter Passed End of Day CCV Yes / No

WIN Station Name: TP31 - FISHHAWK CREEK **Date:** 12/27/2023

WIN/Field ID: 24020134 **WBID:** 1658 **ENR:** **Latitude:** 27.82171

County: Hillsborough **Org ID:** 21FLTPA **Longitude:** -82.20243

Receiving Body of Water: Alafia River **RQ-** 2023-12-11-09

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
[x] Ben Paswater		x	x		x
[x] Ken Turman	x	x	x	x	
[ ]					
[ ]					

Sampling Equipment

- [x] Sample Container
- [ ] Dipper
- [ ] Syringe
- [ ] Carboy
- [ ] Van Dorn
- [ ] Pole

Depth measured with: Secchi

Secchi Equipment ID: Secchi #2

Collection Method

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

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

Meter ID# CHEWY

Photos: YES **Flow:** FLOW **Tide:**

Tide Times: High: Low:

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

SBIO ID Numbers:

Notes:

/ SCI COLLECTION TIME: 1315

Duplicate Sample

Time Zone: EST **Time:** **Field ID:** N/A (WIN ID_DUP)

WIN DMT Activity ID:

Blank

Time Zone: EST **Time:** 1320 **Field ID:** FB_12272023 (Blank Type_DDMMYYYY)

DI Source: SWROC **Location:** SWROC

DI Type: Field Blank **Equipment ID:**

DI Container (Name/ID): **DI Container Type:** Carboy_1 Lil Jon

LIMS EVENT ID: SW-DIST-2023-12-28-02 **WIN Import ID:** 47014

Enter Field Parameters, Verify Station ID In LIMS DMT: DM 12/28/2023 (Initials/Date) **QC Station ID, Field Parameters In LIMS DMT:** KT 12/28/2023 (Initials/Date)

Scan/Save Field Sheets DM 4/22/2024 (Initials/Date) **Migrate Data to WIN:** DM 4/22/2024 (Initials/Date) **Verify Data In WIN:** DM 4/22/2024 (Initials/Date)

RQ-2023-12-11-09
Customer: SW-DIST
Project ID: STRATEGIC MONITORING PLAN

Collected By: Ben Paswater, Ken Turman
Field Report Prepared By: Ben Paswater
Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID: 24020134

Location: TP31 - FISHHAWK CREEK

Comments:

Matrix: Fresh

(Check one) ☒ GRAB ☐ COMPOSITE

Date	Time	DO (mg/L)	DO (%SAT)	Temp. (C°)	pH	Sample Depth (m)	Secchi Disk (m)	Total Depth (m)	Sp COND (µmhos/cm)	Salinity (PPTh)
	1315 EST	8.1	86.9	18.7	7.16	0.3	0.6 ☒ VOB (S)	0.6	253.4	0.12
12/27/2023							Central Lab please use top row for login purposes			
	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	1	A
	Lot # SA3193140 **Exp:**	07/31/2025			
Metals (P-500ML)	☒ W-ICPMS ☒ W-ICP ☒ W-HARD	☒ Ice ☒ HNO_3*	☒ <2	1	A
	Lot # NA3123030 **Exp:**	05/10/2024			
Filtered Nutrients (P125ML)	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice		1	A
	Filter Lot #	**Syringe Lot#**			
Biochemical Oxygen Demand (BP-1L)	**BODTEST** OV-BODUNIN	**ICE**			
Chlorophyll (BP-1L)	☒ CHLSUITE-W	☒ Ice		1	A
Physical/Aggregate (Fresh) (P-1L)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice		1	A
Physical/Aggregate (Marine) (P-1L)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates (PJ-2L)	☐ MI-FW-QLDC **Formalin Lot #** 138536	☒ Formalin		"2"	B
Periphyton (PT-50ML)	☐ ALGAE-ID	☐ Ice			
Microbiology (Contract Lab Bottle)	☒ E Coli ☐ F Coli ☐ Enterococci ☐ Contract Lab	☒ Ice		1	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	MCAA Exp. Date		
Pesticides (BG-500ML) (BG-1L)	x W-E8321-DI x WE8321-MS x W-PSNP-TQ W-CT-CI-R; W-PCL-TQ-R W-CARB-AA (5 ml of MCAA** Buffer Solution) X W-TR-SQ-R; W-PCB-TQ-R	☒ Ice	MCAA Lot#	5	A
Phytoplankton/Periphyton	DTY-QN-C PKD-QN-BV	☐ Ice			

Name:
Ben Paswater
Ken Turman

Signature:

Date: 12/27/2023

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

RQ- 2023-12-11-09 **Collected By:** Ben Paswater, Ken Turman

Customer: WQAP **Field Report Prepared By:** Ben Paswater, Ken Turman

Project ID: SMP **Sampling Agency:** FDEP

BLANK

FieldID: FB_12272023

Comments:

Matrix: Field Blank

(Check one) ☐ COMPOSITE ☒ GRAB

Date	Time	DI Source: SWROC
12/27/2023	1320 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 ☐ H2SO4	☐ <2		
	Lot #	**Exp:**			
Metals (P-500ML)	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3	☐ <2		
	Lot #	**Exp:**			
Filtered Nutrients (P125ML)	☐ W-PO4-F Filter ☐ Field Filtered 0.45 µm	☐ Ice			
	Filter Lot #				
	Syringe Lot #				
Physical/Aggregate (Fresh) (P-1L)	☐ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-IC / TDS	☐ Ice			
Physical/Aggregate (Marine) (P-1L)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Tracers (BG-500ML)	☐ W-E8321-DI ☐ W-E8321-MS	☐ Ice	MCAA Exp. Date		
Pesticides (BG-500ML) (BG-1L)	☐ W-E8321-DI ☐ WE8321-MS ☐ W-PSNP-TQ ☐ W-CT-CI-R ☐ W-PCL-TQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution) ☐ W-TR-SQ-R ☐ W-PCB-TQ-R	☐ Ice	MCAA Lot#		

Name:	Signature:	Date:
Ben Paswater Ken Turman		12/27/2023

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

Field ID/WIN **24020134**

Stream/River Habitat Assessment Field Sheet

Site Name: **TP31 - FISHHAWK CREEK**

STORET STATION NUMBER:	DATE (MM/DD/YY):	RECEIVING BODY OF WATER:
	12/27/23	ALAFIA River

REMARKS:	COUNTY:	LOCATION:	FIELD ID/NAME:
RQ-2023-12-11-09	Hillsborough	Label	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 10	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 7	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 17	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 14 Primary Score 48	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** 20	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 or straightening 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 10 Left Bank 10	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankful to top of bank. Bankfull is within or above the woody root zone with few raw, eroded areas. LR (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 woody root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width Right Bank 10 Left Bank 10	Width of vegetation greater than 18 m LR (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 8 Left Bank 8 Secondary Score 76	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. LR (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

124 **TOTAL SCORE**

Date:	Analyst:	Signature:
12/27/2023	Ben Paskvan, Ken Truman	

VISIT: 88236
HA: 187757
RPS: 10211

Phys-Chem DM 12/28/23

62-160.800, F.A.C.

Revision Date: January 2017

Field ID/WIN **24020134**

ysical/Chemical Characterization Field Sheet

Site Name: **TP31 - FISHHAWK CREEK**

LATITUDE

LONGITUDE

SAMPLING AGENCY SWFWMD

SITE NAME

FIELD ID/NAME

RECEIVING BODY OF WATER Alafia River

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)
80		10		10			

Landscape Development Intensity Index (LDI)

Local Watershed Erosion (select one) : ☐ None ☑ Slight ☐ Moderate ☐ Heavy

Local Watershed NPS Pollution : ☑ No evidence ☐ Slight ☐ Moderate ☐ Heavy

Width of Riparian Vegetation (m) on Each Buffer Side

Left Bank : >18 Right Bank : >18

Hydrologic Modification Score (per FT 3101) 4

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

4 m wide

0.27 m/s	0.27 m/s	0.27 m/s
.3 m deep	.6 m deep	.3 m deep

High Water Mark: 1 (m) + .6 (above present water level) = 1.6 (present depth) (above bed)

Artificially Impounded ☐ Yes ☑ No

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

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)		7	7
Undercut Banks / Roots		7	7
Leaf Packs or Mat		2	2
Aquatic Vegetation		1	1
Rock or Shell Rubble..			
Sand.....		3	3
Mud / Muck / Silt			
Other			
Other			

WATER QUALITY

	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)
Top :	0.3	18.7	7.16	8.1	86.9	253.4	0.12	0.6
Mid:								☑ VOB
Bottom								TOTAL DEPTH
								0.6

Meter ID: Chevy

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: see fs. Exp:

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

Algae Sample Taken? ☐ Yes ☑ No

Sample Preserved? ☐ Yes ☐ No

Lot Number: Exp:

Clarity Clear ☑ Slightly Turbid ☐ Turbid ☐ Opaque ☐

ABUNDANCE

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

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

AMBIENT FIELD CONDITIONS / NOTES:

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

SAMPLING TEAM Ben Pasmater, Ken Turman

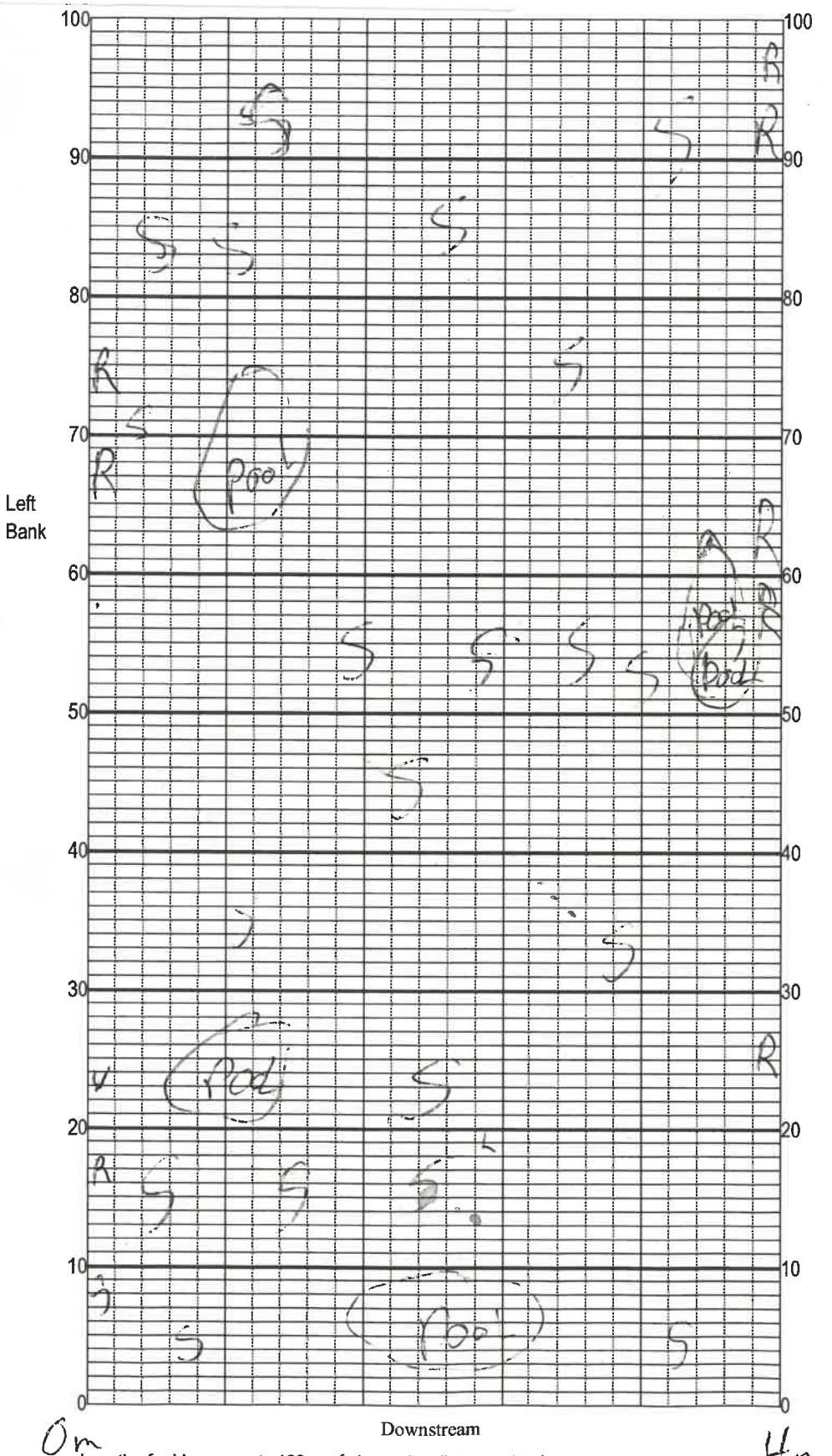
SIGNATURE :

DATE : 12/27/2023

Field ID/WIN **24020134**

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

Site Name: **TP31 - FISHHAWK CREEK**



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

Location: _____

Date: 12/27/2023

Sampler: Ben Passwater

100 m: Latitude	
Longitude	
0 m: Latitude	
Longitude	

Substrates: Code key, draw proportionate habitat abundance. %

S	Snags	4.9
R	Roots/undercut banks	2.3
L	Leaf Packs (or mats)	few
V	Aquatic Macrophytes	few
0	ROCKS	
(Pool)	Pools	total # observed = 4
		# range expected =

Average width 4 m

Average depth .6 m

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.

Plants observed / other notes:

R = 58/2500 ≈ 2.3%

S = 124/2500 = 4.9%

L

62-160.800, F.A.C

Revision Date: March 1, 2014

Field ID/WIN **24020134**

Site Name: **TP31 - FISHHAWK CREEK**

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sh

Investigators: BP KT

County: Hillsborough

STORET Station Number: **see label**

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1			
	2			
	3			
	4			
	5			78
	6			
	7			
	8			
	9			
10	1			
	2			
	3			
	4			
	5			86
	6			
	7			
	8			
	9			
20	1			
	2			
	3			
	4			
	5			95
	6			
	7			
	8			
	9			
30	1			
	2			
	3			
	4			
	5			82
	6			
	7			
	8			
	9			
40	1			
	2			
	3			
	4			
	5			80
	6			
	7			
	8			
	9			
50	1			
	2			
	3			
	4			
	5			42
	6			
	7			
	8			
	9			

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
60	1			
	2			
	3			
	4			
	5			32
	6			
	7			
	8			
	9			
70	1			
	2			
	3			
	4			
	5			84
	6			
	7			
	8			
	9			
80	1			
	2			
	3			
	4			
	5			90
	6			
	7			
	8			
	9			
90	1			
	2			
	3			
	4			
	5			92
	6			
	7			
	8			
	9			
100	1			
	2			
	3			
	4			
	5			74
	6			
	7			
	8			
	9			

Secchi depth	1.6 VOB
Estimated?	No
# points ranked 4-6	0
total points assessed	99
% points ranked 4-6	0

Check accompanying data collected at same site/date.	
Algal mat sample	
Linear Veg Survey	✓
Habitat Assessment	✓
SCI/Biorecon	✓
Water sample	✓
RQ-	2023-12-11-09

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%.**

Field ID/WIN **24020134**

Site Name: **TP31 - FISHHAWK CREEK**

LINEAR VEGETATION SURVEY FIELD SHEET

ate:	County: Hillsborough	Storet Number:
	Signature:	

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

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

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

2 m^2 no entry needed