



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV

Yes No

WIN Station Name:	MIZNERS BRANCH AT FALLS WAY DRIVE				Sample Date:	4/1/2024	
WIN / Field ID:	G5CE0169	ORG ID:	21FLCEN	ENR:	-	Latitude:	29.26697
County:	VOLUSIA	WBID:	2645	STREAM		Longitude:	-81.08756
Receiving Body of Water:	Tomoka River				RQ-	2024-03-25-20	

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Matt Bearden		x		x	x
Katie March	x		x		

Sampling Equipment				
x	Sample Container		Carboy	
	Dipper		Van Dorn	
	Syringe		Pole	
	Syringe Lot#	2327923	Filter Lot#	17769663
	Secchi Equipment ID:	Knothead		
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:	No
Meter ID:	Craw Daddy
Depth Gauge ID:	depth_gauge

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	1318	0.2	0.1	7.01	82.7	23.6	7.09	0.2	382.7	0.18
								VOB (s)		

Biological Samples Collected: HA LVS RPS SCI

SBIO Visit ID: 88778 HA ID: RPS ID: 10295 Macrophyte ID: 12731 LIMS Sample ID In The Macrophyte Module: 247903820

Parameter Suite	Parameter Methods (LIMS Test Codes)			Preservation			
	Type	Lot#	Expiration Date	pH Check			
Microbiology	E. coli				ICE		
Chlorophyll	CHLSUITE-W				ICE		
Physical/Aggregate	ALKALINITY, TURBIDITY, W-F, W-TSS				ICE		
Nutrients	W-CL-IC, W-COLOR, W-SO4-IC, W-TDS				ICE		
Filtered Nutrients	W-PO4-F	Field Filtered 0.45 µm Filter			ICE	Syringe Lot#:2327923 ; Filter Lot#:17769663	
Acid Preserved Nutrients	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP				ICE	H2SO4*	Sa3340020 12/11/2024 H2SO4 pH<2
Metals	W-ICPMS	W-ICP	W-HARD		ICE	HNO3**	NA3193130 07/27/2024 HNO3 pH<2
Organics (LC)	W-E8321-DI	W-E8321-MS			MCAA***		
Macroinvertebrates	MI-FW-QLDC					9.750623WB	
Organics (GC)	W-PSNP-TQ	W-TR-SQ-R			Ice	*2.0 ml of H2SO4 Used Unless Noted Otherwise **2.0 ml of HNO3 Used Unless Noted Otherwise	
Molecular							
Periphyton							
Phytoplankton							
BOD							
DOC							
Other(s)						SyringeLot#	FilterLot#
Field Comments:	/ SCI Collection Time: 1320						
Comments on COC:							
Relinquish Date:	04/01/2024	Signature:					

LIMS EVENT ID: CEN-DIST-2024-04-02-02

WIN Import ID: 48891

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 4/4/24

QC Station ID, Field Parameters In LIMS DMT: VLS 4/18/24

Save Field Sheets on Network: KWM 6/26/24 (Initials/Date)

Migrate Data to WIN: KWM 6/26/24 (Initials/Date)

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

SAMPLE ID _____ ORG ID 21FLCEN LATITUDE _____
 COUNTY Volusia STORET # G5CE0169 LONGITUDE _____
 DATE 4/1/24 TIME _____ SAMPLING AGENCY CE ROC
 SITE NAME Mizner's Branch @ Falls Way Drive
 FIELD ID/NAME G5CE0169 RECEIVING BODY OF WATER Tamoka River

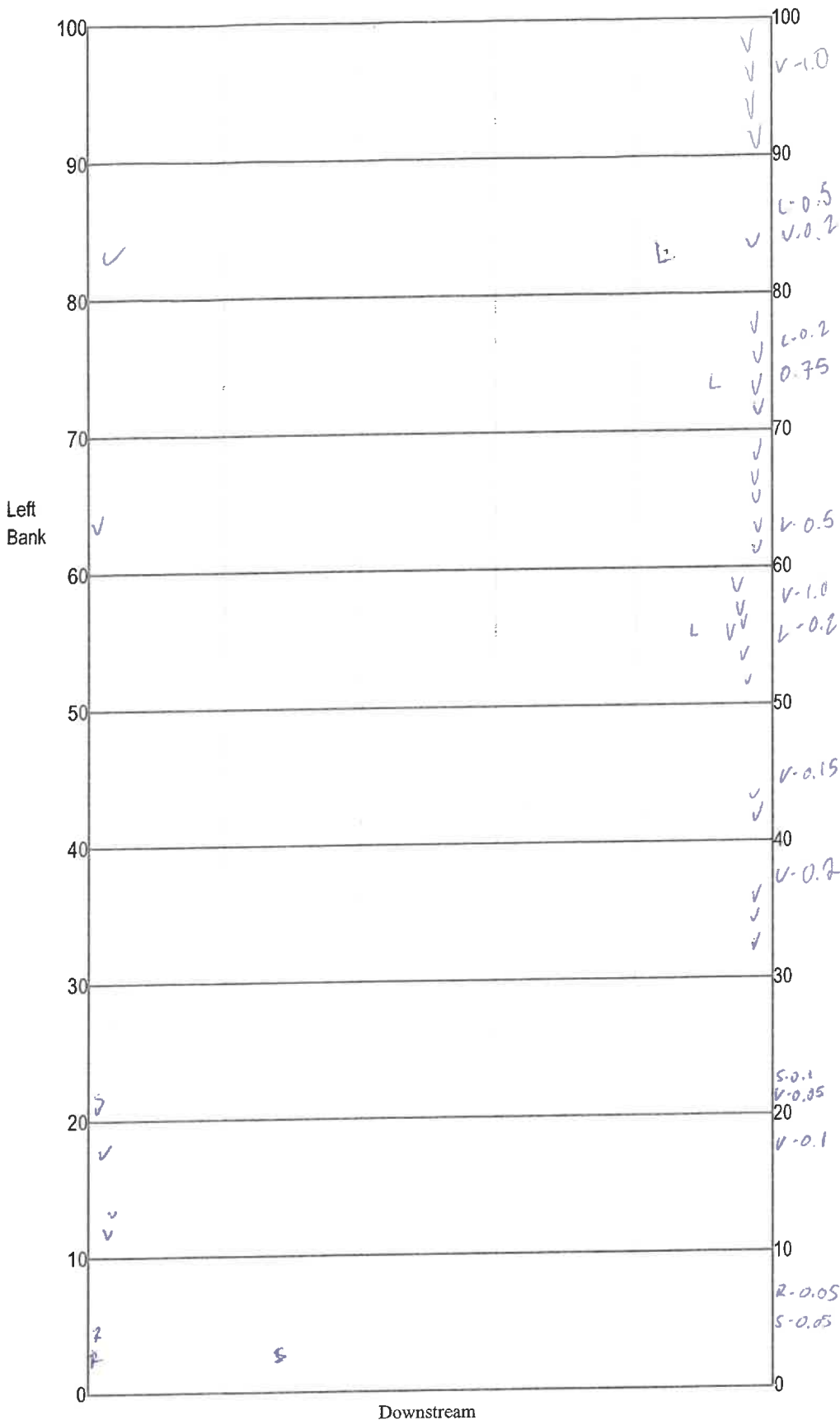
RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industry ☐ Other (Specify) ☐ <u>10</u> <u>80</u> <u>5</u>								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>3</u> m wide _____ m/s <u>0.21</u> m/s _____ m/s _____ m deep <u>0.3</u> m deep _____ m deep			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>12-18</u> Right Bank: <u>6-12</u>				Hydrologic Modification Score (per FT 3101) ☐					
High Water Mark: <u>0.3</u> + <u>0.2</u> = <u>0.5</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☒ Yes ☐ No					
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																																																																																					
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ABUNDANCE			Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐			Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐																																																																																		
Not Obs. Rare Common Abundant Periphyton: ☒ ☐ ☐ ☐ Fish: ☐ ☐ ☒ ☐ Aquatic Plants: ☐ ☐ ☒ ☐ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐			Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ 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 ☐																																																																																		
System Type: Stream ☐ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☒ <u>canal</u>			AMBIENT FIELD CONDITIONS / NOTES: ☒ The antecedent hydrologic conditions have been met to my best knowledge.																																																																																					
SAMPLING TEAM <u>M. Bearden / K. March</u>			SIGNATURE: <u>M. Bearden</u>			DATE: <u>4/1/24</u>																																																																																		

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).

CSCE0169

Location: Mizner's Branch

Date: 4/1/24

Sampler: H. Barden / K. March

100 m: Latitude _____
Longitude _____

0 m: Latitude _____
Longitude _____

Substrates: Code key, draw proportionate habitat abundance. %

☐ S	Snags	_____ %
☐ R	Roots/undercut banks	_____ %
☐ L	Leaf Packs (or mats)	_____ %
☐ V	Aquatic Macrophytes	_____ %
☐ C	<u>Rock</u>	_____ %
☐	_____	_____ %
☐	Pools	total # observed = _____ # range expected = _____

Average width 3 m
Average depth 0.3 m

Velocity measured at 50 meter mark.

WQ & chemistry taken at 50 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 - 0.05
S - 0.15
V - 3.95
L - 0.9

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

SAMPLING AGENCY: <u>LE ROC</u>		STORET STATION NUMBER: <u>G5CE0169</u>	DATE (MM/DD/YY): <u>4/1/24</u>	RECEIVING BODY OF WATER: <u>Tompka River</u>
REMARKS:	COUNTY: <u>Volusia</u>	LOCATION: <u>Mizneis Branch</u>		FIELD ID/NAME: <u>G5CE0169</u>

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <u>4</u>	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 <u>2</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 5 4 3 <u>2</u> 1
Water Velocity <u>14</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 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>9</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 Artificial Channelization <u>10</u>	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 <u>5</u> Left Bank <u>7</u>	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. 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 <u>5</u> Left Bank <u>8</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 4	Less than 6 m of buffer zone due to intensive human activities 3 2 1
Riparian Zone Vegetation Quality Right Bank <u>6</u> Left Bank <u>8</u> ----- Secondary Score <u>49</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). 3 2 1

77

TOTAL SCORE

Date: <u>4/1/24</u>	Analyst: <u>M. Bearden / K. March</u>	Signature: <u>M. Bearden</u>
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DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Waterbody: <u>Mizner's Branch</u>	Date: <u>4/1/24</u>	County: <u>Volusia</u>	Storet Number:
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Analyst: Katie March Signature: Matt B L

Comments: water level low, many plants just out of water

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1m² 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.

[illegible]

G5CE0169- Mizner's Branch

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Investigators M. Boarden / K. March					County: Volusia					
STORET Station Number:										
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	N			60	1	N			
	2					2				
	3					3				
	4					4				
	5			68		5			47	
	6					6				
	7					7				
	8					8				
	9					9				
10	1	N			70	1	N			
	2					2				
	3					3				
	4					4				
	5			57		5			36	
	6					6				
	7					7				
	8					8				
	9					9				
20	1	N			80	1	N			
	2					2				
	3					3				
	4					4				
	5			60		5			41	
	6					6				
	7					7				
	8					8				
	9					9				
30	1	N			90	1	N			
	2					2				
	3					3				
	4					4				
	5			43		5			39	
	6					6				
	7					7				
	8					8				
	9					9				
40	1	N			100	1	N			
	2					2				
	3					3				
	4					4				
	5			61		5			29	
	6					6				
	7					7				
	8					8				
	9					9				
50	1	N				1	N			
	2					2				
	3					3				
	4					4				
	5			75		5				
	6					6				
	7					7				
	8					8				
	9					9				

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%.

Secchi depth 0.3
Estimated? 2

points ranked 4-6 0
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-2024-03-25-20

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