

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV
Yes / No

WIN Station Name:	Apalachicola River .8 miles upstream Owl Creek				Sample Date:	6/28/2022	
WIN / Field ID:	G2TLHR0042	ORG ID:	21FTLHR	ENR:	-		
County:	LIBERTY	WBID:	375D	STREAM			
Receiving Body of Water:	Apalachicola Bay				RQ-	2022-04-25-46	

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Jonathan Woods	x		x		
Jade Burtchett		x		x	x

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

Water Level:	Normal
Flow:	Flowing
Matrix:	Fresh
Tide Stage:	
High Tide:	
Low Tide:	
Photos:	No
Meter ID:	154177

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 (PPT _h)
EST	1055	6.8	0.3	6.03	80.9	30.7	7.25		153.5	0.07
	1057		6.3	5.95	79.7	30.7	7.28		153.4	0.07

Biological Samples Collected: HA LVS RPS

SBIO Visit ID: HA ID: RPS ID: Macrophyte ID: LIMS Sample ID Entered Into The Macrophyte Module:

Parameter Suite	Parameter Methods (LIMS Test Codes)	Preservation					
		Type	Lot#	Expiration Date	pH Check		
Microbiology							
Chlorophyll	CHLSUITE-W	ICE					
Physical/Aggregate Nutrients	ALKALINITY, TURBIDITY, W-F, W-TSS	ICE					
	W-CL-IC, W-COLOR, W-SO4-IC, W-TDS	ICE					
Filtered Nutrients							
Acid Preserved Nutrients	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	ICE	H2SO4*	132275	12/7/22		
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	1105100	6/7/23
Organics (LC)							
Macroinvertebrates							
Organics (GC)							
Molecular							
Periphyton							
Phytoplankton							
BOD							
Other(s)							
Field Comments:							
Comments on COC:							
Relinquish Date:	06/28/2022	Signature:					

LIMS EVENT ID: WIN Import ID:

Enter Field Parameters, Verify Station ID In LIMS DMT: QC Station ID, Field Parameters In LIMS DMT:

Save Field Sheets on Network: Migrate Data to WIN:

Needs scanning 8/6/22

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

SAMPLE ID G2TLHR0042 ORG ID _____ LATITUDE _____
COUNTY Liberty STORET # _____ LONGITUDE _____
DATE 6/24/22 TIME 1055 SAMPLING AGENCY 21 FCLHR
SITE NAME Apalachicola River 0.8 miles upstream Owl Creek
FIELD ID/NAME _____ RECEIVING BODY OF WATER Gulf of Mexico

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>30</u> Silviculture <u>65</u> Field/Pasture _____ Agricultural _____ Residential <u>5</u> Commercial _____ Industry _____ Other (Specify) _____							Landscape Development Intensity Index (LDI) _____
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				<u>90</u> m wide			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>718</u> Right Bank: <u>718</u>				Hydrologic Modification Score (per FT 3101) _____			
High Water Mark: <u>0</u> + <u>6.6</u> = <u>6.8</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No			
Artificially ☒ No ☐ Mostly recovered, more sinuous				Canopy Cover % ☒ Open ☐ Lightly Shaded (11-45%)			
Channelized: ☐ Some recovery ☐ Recent, severe				☐ Heavily Shaded ☐ Moderate Shaded (46-80%)			

SEDIMENT / SUBSTRATE

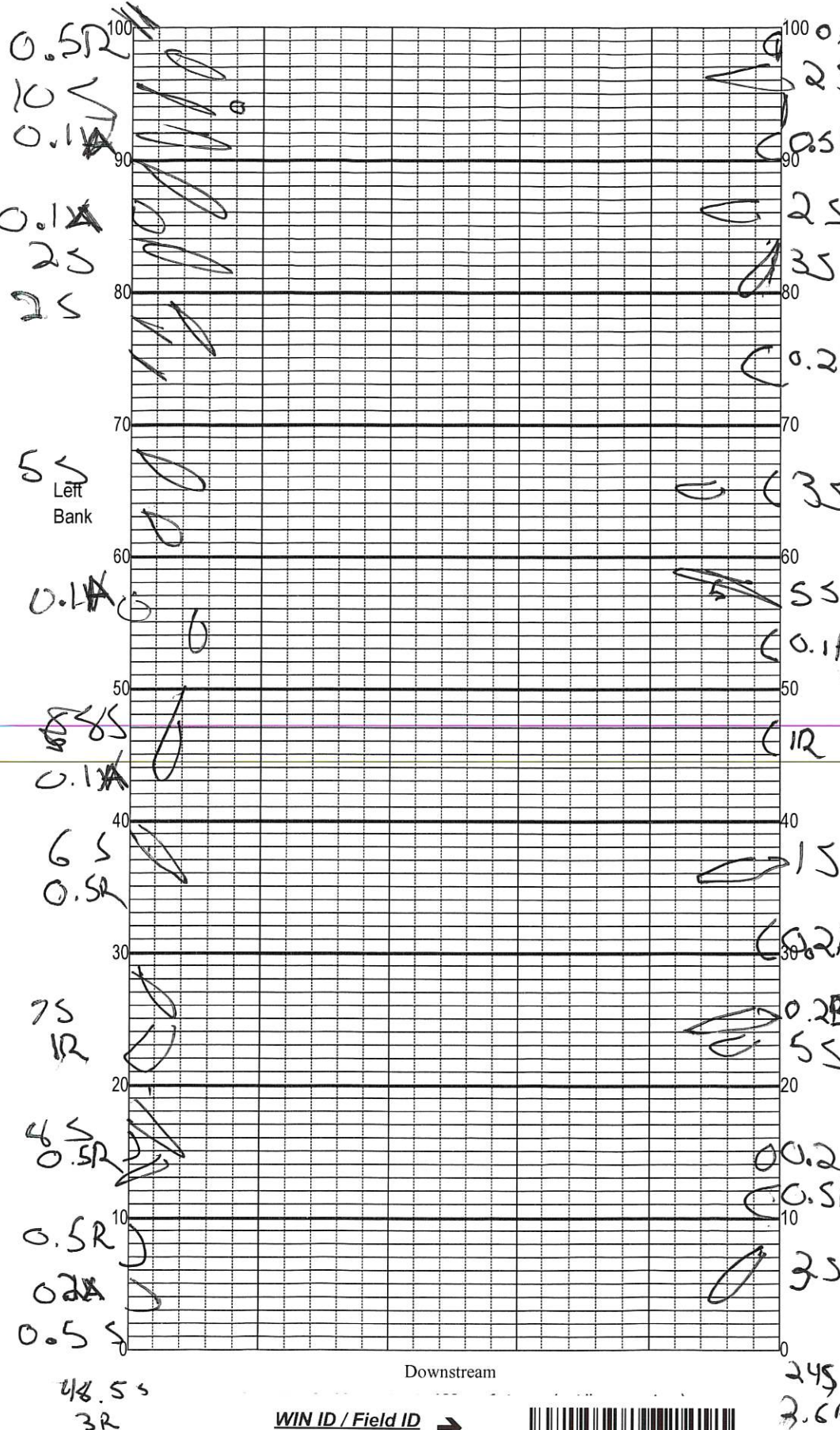
Sediment Oils ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse	Sediment Odors ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ Other (Specify): _____	Smothering of Substrates Sand Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐ Silt Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐ Algae Smothering: None ☒ Slight ☐ Moderate ☐ Severe ☐
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SUBSTRATE TYPE Assessment Tool: ☐ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon Woody Debris (Snags) <u>0.8</u> ☐ Invert ☐ Peri Undercut Banks / Roots <u>0.06</u> ☐ # Times Sampled Leaf Packs or Mat _____ Aquatic Vegetation <u>0.93</u> ☐ # Times Sampled Rock or Shell Rubble _____ Sand _____ Mud / Muck / Silt _____ Other <u>99.127</u> ☐ # Times Sampled Other _____	WATER QUALITY Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M) Top: _____ Mid: _____ Bottom: _____ Meter ID: <u>154177</u> Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>132275</u> Exp: <u>2/2/22</u> Algae Sample Taken? ☐ Yes ☐ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ Exp: _____ Water Surface Oils Normal ☒ Sheen ☐ Globs ☐ Slick ☐ Other ☐ Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) ☐ Clarity Clear ☐ Slightly Turbid ☐ Turbid ☒ Opaque ☐
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ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☐ ☒ ☐ ☐ Fish: ☐ ☐ ☒ ☐ Aquatic Plants: ☐ ☒ ☐ ☐ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐	System Type: Stream ☐ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☒ <u>River</u> AMBIENT FIELD CONDITION <u>WIN ID / Field ID</u> → <u>G2TLHR0042</u> WBID: 375D KIT: N, M (RPS/LVS/HA/Phys-Chem) <u>Location</u> <u>Apalachicola River .8 miles upstream Owl Creek</u> ☒ The antecedent hydrologic
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SAMPLING TEAM <u>Woods/Burchett</u>	SIGNATURE: <u>[Signature]</u>	DATE: <u>6/24/22</u>
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



Location: GATLHR0042
 Date: 6/28/22
 Sampler: Woods

100 m: Latitude _____
 Longitude _____
 0 m: Latitude _____
 Longitude _____

Substrates: Code key, draw proportionate habitat abundance.		%
☐ S	Snags	0.6
☐ R	Roots/undercut banks	0.06
☐ L	Leaf Packs (or mats)	
☐ A	Aquatic Macrophytes	0.013
☐ K	Rock	
☐		
☐	Pools	total # observed = _____ # range expected = _____

Average width 90 m
 Average depth 6.6 m

Velocity measured at 0.25 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:

72.5
 5.6 R
 1.2 A

WIN ID / Field ID →

WBID: 375D

KIT: N, M (RPS/LVS/HA/Phys-Chem)

Location

Apalachicola River .8 miles upstream Owl Creek



G2TLHR0042

10054

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>G2TLHR0042</u>					County: <u>Liberty</u>		Date: <u>6/24/22</u>		Investigators: <u>Woods/Burkett</u>									
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	STORET Station Number:								
0	1	N	✓		60	1	N	✓		Secchi depth								
	2					2						Estimated?						
	3					3												
	4					4												
	5			0		5			0									
	6					6												
	7					7												
	8					8												
	9					9												
10	1				70	1				# points ranked 4-6								
	2					2						total points assessed						
	3					3												
	4			0		4			0									
	5					5												
	6					6												
	7					7												
	8					8												
	9					9												
20	1				80	1				% points ranked 4-6								
	2					2												
	3					3												
	4			0		4			0									
	5					5												
	6					6												
	7					7												
	8					8												
	9					9												
30	1				90	1				Check accompanying data collected at same site/date.								
	2					2						Algal mat sample						
	3					3							Linear Veg Survey					
	4			0		4			0					Habitat Assessment				
	5					5									SCI/Biorecon			
	6					6										Water sample		
	7					7											✓	
	8					8												✓
	9					9												
40	1				100	1				Algal Thickness Rank								
	2					2						N						
	3					3							rough, no algae,					
	4			0		4			0					slimy, algae up to 1mm				
	5					5									>1mm - 6mm			
	6					6										>6mm - 20mm		
	7					7											>20mm - 10 cm	
	8					8												>10 cm
	9					9												
50	1				50	1				Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank.								
	2					2						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.						
	3					3							Collect algal mat sample following DEP SOP 58-7010 if the percentage of total sampled					
	4			0		4			0					WIN ID / Field ID →				
	5					5									WBID: 375D			
	6					6										KIT: N, M (RPS/LVS/HA/Phys-Chem)		
	7					7											Location	
	8					8												G2TLHR0042
	9					9												



DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Waterbody: <u>Apalachicola River</u>	Date: <u>6/20/22</u>	County: <u>Liberty</u>	Storet Number: <u>621180-42</u>
Analyst: <u>Woods/Buckchett</u>	Signature: <u>[Signature]</u>		

Instructions: Note taxa growing in the water with a checkmark if 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.

[illegible]

WIN ID / Field ID ➔

WBID: 375D

KIT: N, M (RPS/LVS/HA/Phys-Chem)

Location

G2TLHR0042

Apalachicola River .8 miles upstream Owl Creek

18152

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

SAMPLING AGENCY: <u>21 FLTLHR</u>		STORET STATION NUMBER: <u>G2TLHR0042</u>	DATE (MM/DD/YY): <u>6/24/22</u>	RECEIVING BODY OF WATER: <u>Gulf of Mexico</u>
REMARKS:	COUNTY: <u>Liberty</u>	LOCATION: <u>Apalachicola River 0.8 miles</u>	FIELD ID/NAME:	

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>8</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 5 4 3 2 1
Water Velocity <u>16</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>16</u> ----- Primary Score <u>41</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 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>20</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability Right Bank <u>10</u> Left Bank <u>10</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. 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 <u>10</u> Left Bank <u>10</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>9</u> Left Bank <u>8</u> ----- Secondary Score <u>77</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

118 ~~125~~

TOTAL SCORE

Date: <u>6/28/22</u>	Analyst: <u>Woods</u>	Signature: <u>[Signature]</u>
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WIN ID / Field ID →

WBID: 375D

KIT: N, M (RPS/LVS/HA/Phys-Chem)



G2TLHR0042

62-160.800, F.A.C.

Location

Apalachicola River .8 miles upstream Owl Creek

Revision Date: March 1, 2014