



RQ-2021-03-15-35

Customer: WQAP

Project ID: SMP

Collected By: Ben Harden, Paul Blair

Field Report Prepared By: Ben Harden

Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID:



G1TLHR0065

Location: Steinhatchee River 40m N of Yearling Rd

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 (PPT _h)
4/8/2021	1010 EST	7.96	83	17.3	7.28	0.3	0.5 ☐ VOB (S)	1	187.6	0.09
	EST						Central Lab please use top row for login purposes			

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 Lot # SA0293040 Exp: 10/19/21	☒ Ice ☒ H2SO4*	☒ <2	1	A
Metals (P-500ML)	☒ W-ICPMS ☒ W-ICP ☒ W-HARD Lot # NA0344060 Exp: 01/04/22	☒ Ice ☒ HNO3*	☒ <2	1	A
Filtered Nutrients (P125ML)	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter Filter Lot # 16968882 Syringe Lot # 0079900	☒ Ice		1	A
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-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates (PJ-2L)	☒ MI-FW-QLDC	☒ Formalin		2	
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		1	A
Pesticides (BG-500ML) (BG-1L)	W-E8321-DI W-E8321-MS ☒ W-PSNP-TQ W-CT-CL-R W-PCL-SQ-R W-CARB-AA (5 ml of MCAA** Buffer Solution) W-DIELDRIN	☒ Ice		4	A
Phytoplankton/Periphyton	DTM-QL-C PEN-QL-C DTY-QN-C PKD-QN-C DTM-QN-C PRN-QN-C PKD-QN-BV	☐ Ice			
Name: Ben Harden Paul Blair	Signature:			Date:	

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

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

SAMPLE ID	ORG ID	LATITUDE
COUNTY Taylor	STORET # G1TLHR000065	LONGITUDE
DATE 04/08/2021	TIME 10:10	SAMPLING AGENCY TLHROC
SITE NAME Steinhatchee 40m N of Yearling Rd		
FIELD ID/NAME Steinhatchee 40m N of Yearling Rd		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)	
90				10				
Local Watershed Erosion (select one) : ☒ None ☐ Slight ☐ Moderate ☐ Heavy								Typical Width (m) Depth (m)/Velocity (m/sec) Transect 8 m wide
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)				0.2 m/s 0.2 m/s 0.2 m/s
High Water Mark: 0.2 + 1 = 1.2 (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No				0.4 m deep 1 m deep 0.4 m deep
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																																										
SUBSTRATE TYPE Assessment Tool: ☒ SCI ☒ RPS ☐ LVS ☐ LCI ☐ BioRecon			WATER QUALITY <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Depth (M)</th> <th>Temp. (°C)</th> <th>pH (SU)</th> <th>D.O. (MG/L)</th> <th>D.O. Sat (%)</th> <th>Cond. (UMHO/CM)</th> <th>Salinity (PPT)</th> <th>SECCHI (M)</th> </tr> </thead> <tbody> <tr> <td>Top :</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Mid:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Bottom</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>							Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)	Top :									Mid:									Bottom												
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			Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐			Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify)																																										
			Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: 0293040 Exp: 10-19-21			Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐																																										
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SAMPLING TEAM Blair/Harden			SIGNATURE :			DATE : 04/08/2021																																										

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: GITLH0065 / Rainwater 40m N of Koorling Rd County: Taylor Date: 4-8-21 Investigators: Blair/Harden

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	N				2	N		
	3	N				3	N		
	4	N				4	N		
	5	N		96		5	N		75
	6	N				6	N		
	7	N				7	N		
	8	N				8	N		
	9	N				9	N		
10	1	N			70	1	N		
	2	N				2	N		
	3	N				3	N		
	4	N				4	N		
	5	N		88		5	N		96
	6	N				6	N		
	7	N				7	N		
	8	N				8	N		
	9	N				9	N		
20	1	N			80	1	N		
	2	N				2	N		
	3	N				3	N		
	4	N				4	N		
	5	N		96		5	N		86
	6	N				6	N		
	7	N				7	N		
	8	N				8	N		
	9	N				9	N		
30	1	N			90	1	N		
	2	N				2	N		
	3	N				3	N		
	4	N				4	N		
	5	N		90		5	N		90
	6	N				6	N		
	7	N				7	N		
	8	N				8	N		
	9	N				9	N		
40	1	N			100	1	N		
	2	N				2	N		
	3	N				3	N		
	4	N				4	N		
	5	N		96		5	N		84
	6	N				6	N		
	7	N				7	N		
	8	N				8	N		
	9	N				9	N		
50	1	N							
	2	N							
	3	N							
	4	N							
	5	N		88					
	6	N							
	7	N							
	8	N							
	9	N							

Secchi depth 0.5
Estimated? N

points ranked 4-6 6
total points assessed 99
% points ranked 4-6 6

Check accompanying data collected at same site/date.
Algal mat sample ☐
Linear Veg Survey ☐
Habitat Assessment ☒
SCI/Biorecon ☒
Water sample ☒
RQ-2021-03-15-35

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%.

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

SAMPLING AGENCY: TLHROC		STORET STATION NUMBER: G1TLHR0065	DATE (MM/DD/YY): 04/08/2021	RECEIVING BODY OF WATER: Gulf of Mexico
REMARKS:	COUNTY: Taylor	LOCATION:		FIELD ID/NAME: Steinhatchee 40m N of

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <u>6</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>3</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>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>17</u> ----- Primary Score <u>40</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>20</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>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 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>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>10</u> Left Bank <u>10</u> ----- Secondary Score <u>80</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

120

TOTAL SCORE

Date: 04/08/202	Analyst: Paul Blair	Signature:
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RQ-2021-03-15-35

Location: GITLHRO065

Date: 9-8-21

Sampler: Blair Norden

100 m: Latitude _____
Longitude _____

0 m: Latitude _____
Longitude _____

Substrates: Code key, draw proportionate habitat abundance.	%
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5 Snags 1

R Roots/undercut banks

L	Leaf Packs (or mats)	1.06
---	----------------------	------

A Aquatic Macrophytes _____

K rock

☐ _____

total # observed = _____
range expected = _____

Average width 8 m

Average depth 0.6 m

Velocity measured at 10 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:

$$L = 8.5$$
$$\delta = 8$$

2.06%

Revision Date: January 2017