



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PLAN FIELD SHEET

January 2022

Meter Passed End

of Day CCV

☒ Yes / ☐ No

WIN Station Name: Little Withlacoochee near confluence with Withlacoochee

Date: 2/10/2022

WIN/Field ID: G4CE0226

WBID: 1381

ENR: -

Latitude: 28.57314

County: HERNANDO

Org ID: 21FLCEN

Longitude: -82.1995

Receiving Body of Water: Withlacoochee

RQ: 2022-02-07-22

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒ Terry Riordan	☒	☒	☒		
☒ Leif Boman		☒		☒	☒
☐					
☐					

Sampling Equipment	
☐ Sample Container	☐ Carboy
☐ Dipper	☐ Van Dorn
☒ Syringe	☐ Pole
Depth measured with: Secchi	
Secchi Equipment ID: Knothead	
Collection Method	
☐ Wading	☐ Canoe/Kayak
☐ From Shore	☐ Electric Motor
☐ Other	☒ Gasoline Motor

Water Level: ☒ Normal ☐ Low ☐ High ☐ Dry ☐ Pooled ☐ Flooded		Meter ID# CRAW DADDY	
Photos: YES	Flow: FLOW	Tide:	Tide Times: High: Low:
Biological Samples Collected: ☐ None ☒ HA ☒ SCI ☒ RPS ☐ Algae ID ☐ LVS ☐ LVI Other:			
SBIO ID Numbers: SBIO 83824		HA 17243	RPS 9896
2305249			
Notes: CLEAR 70's / SCI COLLECTION TIME: 1230			

Duplicate Sample

Time Zone: EST	Time:	Field ID: (WIN ID_DUP)
WIN DMT Activity ID:		

Blank

Time Zone:	Time:	Field ID: (Blank Type_DDMMYYYY)
DI Source:	Location:	
DI Type:	Equipment ID:	
DI Container (Name/ID):		DI Container Type:

LIMS EVENT ID: CEN-DIST-2022-02-11-01

WIN Import ID: 32709

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 2/11/22

QC Station ID, Field Parameters In LIMS DMT: EB 3/14/22

Scan/Save Field Sheets KWm 5/10/22

Migrate Data to WIN: KWM 5/10/22

Verify Data In WIN:



RQ-2022-02-07-22

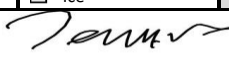
Customer: WQAP

Project ID: SMP

Collected By: Terry Riordan, Leif Boman

Field Report Prepared By: Terry Riordan

Sampling Agency: FDEP

Place Label Here						Comments:					
WIN ID/Field ID:  G4CE0226						No LVS < 2 sq meters of vegetation - TR					
Location: Little Withlacoochee near confluence with Withlacoochee											
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)	
2/10/2022	1150 EST	7.73	75.2	14.2	7.34	0.3	0.9 ☒ VOB (S)	0.9	232.1	0.11	
	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				☒ Ice ☒ H2SO4*		☒ <2	1	A	
		Lot #	SA1105060		Exp:	4/30/22					
Metals (P-500ML)		☒ W-ICPMS ☒ W-ICP ☒ W-HARD				☒ Ice ☒ HNO3*		☒ <2	1	A	
		Lot #	NA1105100		Exp:	6/7/22					
Filtered Nutrients (P125ML)		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice			1	A	
		Filter Lot #	17135566			Syringe Lot #	1112035				
BOD (BP-1L)		☐ 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-BR-IC / W-F / W-TSS / TURBIDITY				☐ Ice					
Macroinvertebrates (PJ-2L)		☐ MI-FW-QLDC				☒ Formalin			2	B	
Periphyton (PT-50ML)		☐ ALGAE-ID				☐ Ice					
Microbiology (Contract Lab Bottle)		☐ Coli ☐ Coli ☐ Enterococci ☐ Contract Lab				☐ Ice					
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.	1	A	
Pesticides (BG-500ML) (BG-1L)		W-E8321-DI		WE8321-MS		☒ W-PSNP-TQ		W-CT-CL-R		MCAA Lot#	
		W-PCL-TQ-R		W-CARB-AA (5 ml of MCAA** Buffer Solution)		☒ Ice		W-TR-SQ-R			
		W-PCB-TQ-R									
Phytoplankton/Periphyton				DTY-QN-C		PKD-QN-C		☐ Ice			
Name: Terry Riordan Leif Boman					Signature: 					Date: 02/10/2022	

*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 _____ STORET # _____ LONGITUDE _____
 DATE 02/10/2022 TIME _____ SAMPLING AGENCY FDAP - COROC
 SITE NAME LITTLE WITHLA COUCHAT
 FIELD ID/NAME G4C8022W RECEIVING BODY OF WATER _____

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☒ 100% Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industry ☐ Other (Specify) ☐							Landscape Development Intensity Index (LDI) ☒ 2 (10)
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 10 m wide .2 m/s .21 m/s _____ m/s 0.9 m deep 1 m deep _____ m deep
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>>18</u> Right Bank: <u>>18</u>				Hydrologic Modification Score (per FT 3101) <u>2</u>			
High Water Mark: <u>1.5</u> + <u>0.9</u> = <u>2.4</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 % Coverage INVERT # Times Sampled PERI # Times Sampled Woody Debris (Snags) _____ Undercut Banks / Roots _____ Leaf Packs or Mat _____ Aquatic Vegetation _____ Rock or Shell Rubble _____ Sand _____ 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: <u>0.3</u> <u>14.2</u> <u>7.34</u> <u>7.73</u> <u>75.2</u> <u>232.1</u> <u>0.11</u> <u>0.9</u> Mid: _____ Bottom: _____ Meter ID: <u>CRAW DADDY</u> TOTAL DEPTH <u>0.9</u>					
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☐ ☒ ☐ ☐ Fish: ☐ ☐ ☒ ☐ Aquatic Plants: ☐ ☒ ☐ ☐ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐			Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ Exp: _____ 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 ☐		
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

Lif Boman

SIGNATURE:

Lif Boman

DATE:

02/10/22

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Little Withlacoochee near confluence with Withlacoochee County: Hernando Date: 2/10/22 Investigators: Terry Riosda, Leif Boman

STORET Station Number: WIN GACE 0226

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	N	80	60	1	N	N	48
	2	N	N						
	3	N	N						
	4	N	N						
	5	N	N						
	6	N	N						
	7	N	N						
	8	N	N						
	9	3	N						
10	1	N	N	68	70	1	N	N	64
	2	N	N						
	3	N	N						
	4	N	N						
	5	N	N						
	6	N	N						
	7	N	N						
	8	N	N						
	9	N	N						
20	1	N	N	86	80	1	N	N	58
	2	N	N						
	3	N	N						
	4	N	N						
	5	N	N						
	6	N	N						
	7	N	N						
	8	3	N						
	9	N	N						
30	1	N	N	72	90	1	N	N	46
	2	N	N						
	3	N	N						
	4	N	N						
	5	N	N						
	6	N	N						
	7	N	N						
	8	N	N						
	9	N	N						
40	1	N	N	84	100	1	3	N	58
	2	N	N						
	3	N	N						
	4	N	N						
	5	N	N						
	6	N	N						
	7	N	N						
	8	N	N						
	9	N	N						
50	1	N	N	40	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%.				
	2	N	N						
	3	N	N						
	4	N	N						
	5	N	N						
	6	N	N						
	7	N	N						
	8	N	N						
	9	3	N						

Secchi depth 0.9
Estimated? N

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-2022-02-07-22

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

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

SAMPLING AGENCY: <u>FDAP-COROL</u>		STORET STATION NUMBER:	DATE (MM/DD/YY): <u>02/10/22</u>	RECEIVING BODY OF WATER:
REMARKS:	COUNTY: <u>Hernando</u>	LOCATION: <u>Little Withlacoochee</u>		FIELD ID/NAME: <u>G4CED226</u>

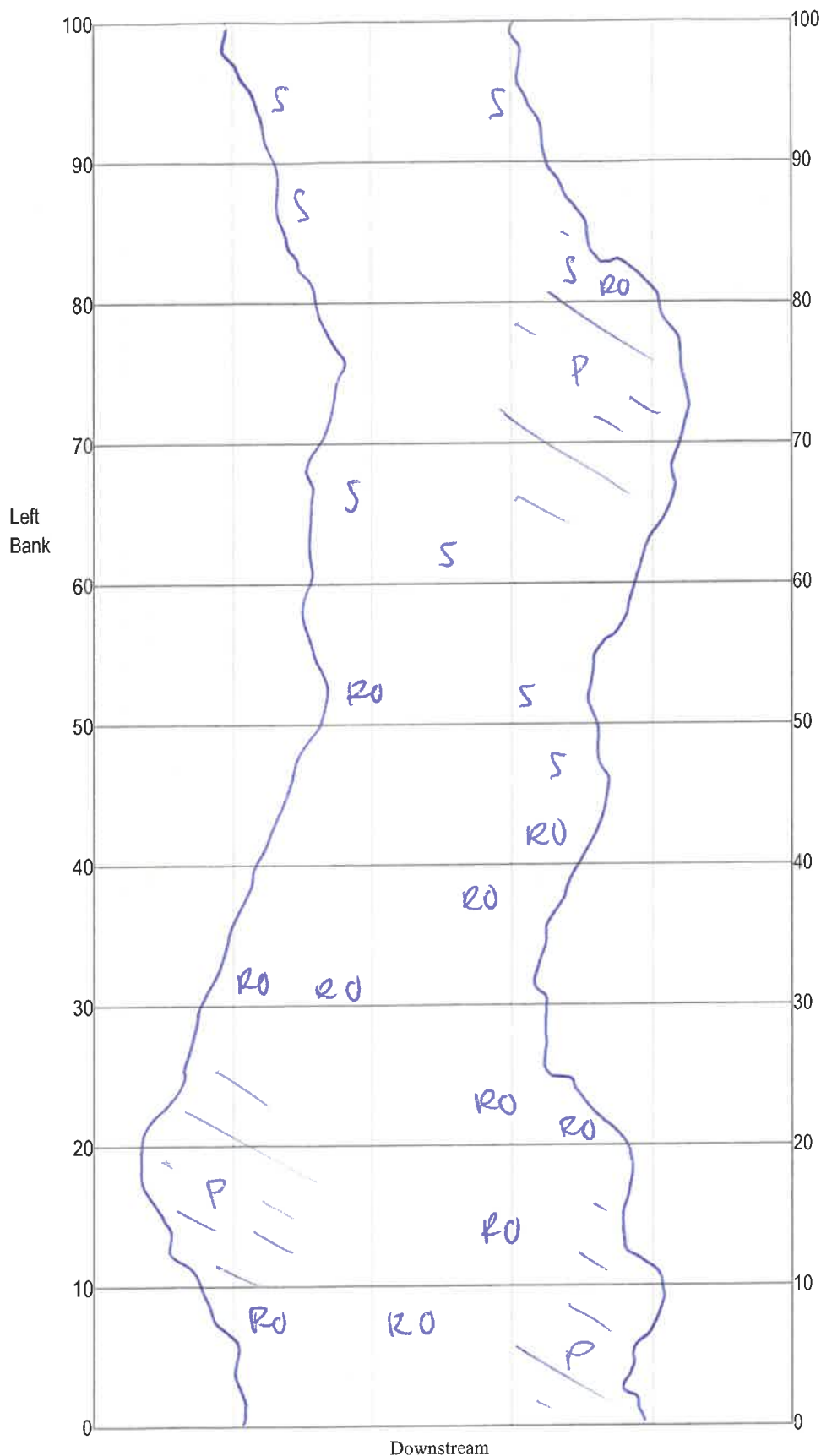
Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock]	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh 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 <u>8</u> 7 6	5 4 3 2 1
Substrate Availability <u>10</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 <u>10</u> 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 <u>14</u> 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>18</u> ----- Primary Score <u>50</u>	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. 20 19 <u>18</u> 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. <u>20</u> 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>8</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>73</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

123

TOTAL SCORE

Date: <u>02/10/2022</u>	Analyst: <u>Leif Boman</u>	Signature: 
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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).

Location: Little Wicomico
G4CE02710
Date: 02/10/2022
Sampler: Leif Boman, Terry

100 m: Latitude	
Longitude	
0 m: Latitude	
Longitude	
Substrates: Code key, draw proportionate habitat abundance. %	
☒ S	Snags <u>25.35</u> (LB)
☒ R	Roots/undercut banks <u>10.15</u> (LB)
☐	Leaf Packs (or mats) _____
☐	Aquatic Macrophytes _____
☒ RO	<u>ROCKS</u> <u>8.5</u>
☐	_____
☒ P	Pools total # observed = <u>3</u> # range expected = <u>1-2</u>
Average width <u>10</u> m	
Average depth <u>.9</u> m	
Velocity measured at <u>0.50</u> meter mark.	
WQ & chemistry taken at <u>0</u> 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:

[illegible]

Revision Date: January 2017