



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2020

Meter Passed End
of Day CCV
Yes / No

WIN Station Name: Mills Cr @ Boat Ramp off Police Lodge **Date:** 12/8/2020
Rd WIN/Field ID: 19020068 **WBID:** 2120A **ENR:** **Latitude:** 30.601388
County: Nassau **Org ID:** 21FLA **Longitude:** -81.699722
Receiving Body of Water: Nassau River **RQ:** 2020-12-07-56

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Jeremy Parrish		x		x	x
☒	Brian Davis	x		x		
☐						
☐						

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

Water Level: ☒ Normal ☐ Low ☐ High ☐ Dry ☐ Pooled ☐ Flooded						Meter ID# STITCH							
Photos: YES		Flow: FLOW		Tide: FALLING		Tide Times: High: Low:							
Biological Samples Collected: ☐ None ☒ HA ☐ SCI ☒ RPS ☐ Algae ID ☒ LVS ☐ LVI Other:													
SBIO ID Numbers:													
Notes:													

Duplicate Sample

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

Blank

Time Zone:	Time: N/A	Field ID: N/A	(Blank Type_DDDMMYY)
DI Source: N/A	Location: N/A		
DI Type: N/A	Equipment ID: N/A		

LIMS EVENT ID: **WIN Import ID:**
Enter Field Parameters, Verify Station ID In LIMS DMT: **QC Station ID, Field Parameters In LIMS DMT:**
(Initials/Date) (Initials/Date)
Scan/Save Field Sheets BD 12/8/20 **Migrate Data to WIN:** **Verify Data In WIN:**
(Initials/Date) (Initials/Date) (Initials/Date)



RQ-2020-12-07-56

Customer: WQAP

Project ID: SMP

Collected By: Jeremy Parrish, Brian Davis

Field Report Prepared By: Jeremy Parrish

Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID:



19020068

Location: Mills Cr @ Boat Ramp off Police Lodge Rd

Comments: Microbiology sample(s) submitted to contract laboratory

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)
12/8/2020	1100 EST	7.18	69.1	13.6	6.24	0.3	0.4 ☐ VOB (S)	1.2	261	0.12

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 Lot # SA0038110 Exp: 2/7/21	☒ Ice ☒ H2SO4*	☒ <2	1	A
Metals (P-500ML)	☐ W-ICPMS ☐ W-ICP ☒ W-HARD Lot # NA9354060 Exp: 12/20/20	☒ Ice ☒ HNO3*	☐ <2	1	A
Filtered Nutrients (P125ML)	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter Filter Lot # ROCB48617 Syringe Lot #	☒ 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			
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			
Pesticides (BG-500ML) (BG-1L)	☐ W-E8321-DI ☐ WE8321-MS ☐ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-PCL-SQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution)	☐ Ice			
		☐ Ice			

Name:
Jeremy Parrish
Brian Davis

Signature:

Date:

12/8/2020

*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 21FLA LATITUDE _____
 COUNTY Nassau STORET # 19020068 LONGITUDE _____
 DATE 12/8/20 TIME 1105 SAMPLING AGENCY DEAR NED
 SITE NAME Mills Creek @ Fort Ruff Police Lodge Rd
 FIELD ID/NAME _____ RECEIVING BODY OF WATER Nassau 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) ☐							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>30</u> m wide <u>0.3</u> m/s <u>1.2</u> m deep
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>>16m</u> Right Bank: <u>>16m</u>				Hydrologic Modification Score (per FT 3101) ☐			
High Water Mark: <u>0.7</u> + <u>1.2</u> = <u>1.9</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			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>13.6</u> <u>6.24</u> <u>7.18</u> <u>69.1</u> <u>261</u> <u>0.12</u> <u>0.4</u> Mid: _____ Bottom: <u>1.2</u> Meter ID: _____		
Woody Debris (Snags) ☐ Undercut Banks / Roots ☐ Leaf Packs or Mat ☐ Aquatic Vegetation <u>2</u> Rock or Shell Rubble ☐ Sand ☐ Mud / Muck / Silt ☐ Other ☐ Other ☐			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: _____		
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☒ ☐ ☐ ☐ Fish: ☐ ☒ ☐ ☐ Aquatic Plants: ☐ ☐ ☒ ☐ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐			Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ 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 <u>Jeray Parish / Brian Davis</u>			SIGNATURE: <u>[Signature]</u>		DATE: <u>12/8/20</u>

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Mt. Carmel Boat Ramp off Police Lodge Rd</u>					County: <u>Nassau</u>		Date: <u>12/8/20</u>		Investigators: <u>B. Davis, J. Pennington</u>	
STORET Station Number: <u>19010068</u> <u>19020068</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	
0	1	N			60	1	N	✓		
	2	X				2	X			
	3					3				
	4					4				
	5			O		5			O	
	6					6				
	7					7				
	8					8				
	9	N	✓			9	N	✓		
10	1	N			70	1	N			
	2	X				2	X			
	3					3				
	4					4				
	5			O		5			O	
	6					6				
	7					7				
	8					8				
	9	N	✓			9	N	✓		
20	1	N			80	1	N			
	2	X				2	X			
	3					3				
	4					4				
	5			O		5			O	
	6					6				
	7					7				
	8					8				
	9	N				9	N			
30	1	N			90	1	N			
	2	X				2	X			
	3					3				
	4			O		4				
	5					5			O	
	6					6				
	7					7				
	8					8				
	9	N				9	N			
40	1	N			100	1	N	✓		
	2	X				2	X			
	3					3				
	4			O		4				
	5					5			O	
	6					6				
	7					7				
	8					8				
	9	N				9	N			
50	1	N	✓		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 densimeter 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	X								
	3									
	4									
	5			O						
	6									
	7									
	8									
	9	N								

Secchi depth 0.4
Estimated?

points ranked 4-6 0
total points assessed 22
% 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-2020-12-07-56

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:		STORET STATION NUMBER: 19020068	DATE (MM/DD/YY): 12/08/20	RECEIVING BODY OF WATER: Nassau River
REMARKS:	COUNTY: Nassau	LOCATION: Millgrove Police bldg rd	FIELD ID/NAME:	

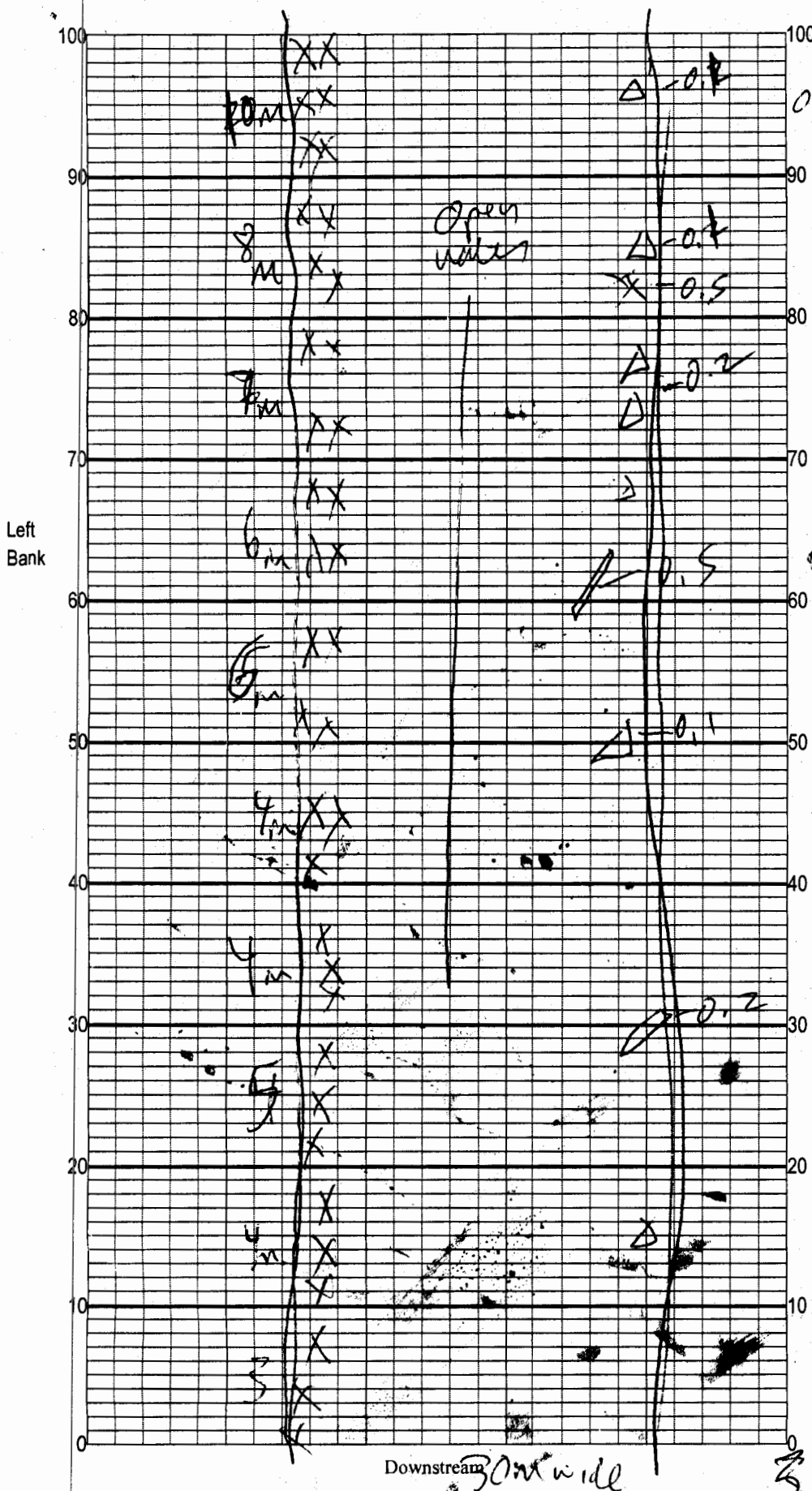
Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock]	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh 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>3</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 <u>3</u> 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 <u>3</u> 2 1
Water Velocity <u>18</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 <u>18</u> 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>15</u> Primary Score <u>39</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. <u>15</u> 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 or straightening 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>	<u>20</u> 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability	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.	Only meets 2 of the 3 requirements for optimal bank stability.	Only meets 1 of the 3 requirements for optimal bank stability.	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the woody root zone with raw, eroded areas.
Right Bank <u>8</u> Left Bank <u>8</u>	10 9	<u>8</u> 7 6	5 4	3 2 1
Riparian Buffer Zone Width	Width of vegetation greater than 18 m	Width of vegetation >12 to 18m	Width of vegetation 6 to 12 m. human activities close to system	Less than 6 m of buffer zone due to intensive human activities
Right Bank <u>9</u> Left Bank <u>10</u>	10 <u>9</u>	8 7 6	5 4	3 2 1
Riparian Zone Vegetation Quality	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.	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed.	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious.	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions).
Right Bank <u>9</u> Left Bank <u>10</u> Secondary Score <u>74</u>	<u>10</u> <u>9</u>	8 7 6	5 4	3 2 1

113

TOTAL SCORE

Date: 12/08/20	Analyst: Jeremy Bunn	Signature: Jeremy Bunn
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



Location: Mills Lodge
 Date: 12/5/2020
 Sampler: JP/SA

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

Substrates: Code key, draw proportionate habitat abundance.		%
	Snags	<u><1</u>
	Roots/undercut banks	<u><1</u>
	Leaf Packs (or mats)	_____
	Aquatic Macrophytes	<u>2%</u>
	Pools	total # observed = _____ # range expected = _____

Average width 30 m
 Average depth 1.2 m

Velocity measured at 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:

200ft
 snag = < 2m
 ~ 60m plants ~ 2%
 300 to 400
 150 - 5%
 75 = 2.5%
 6 = 2%

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

19020008

Analyst: B. Davis Signature: [Signature] B-D-

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.

Revision Date: March 1, 2014