



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

April 2018

Data Qualified?

Yes / No

WIN Station Name: Okaloacoochee Branch @ Eucalyptus

Date: 09/11/2018

(mm/dd/yyyy)

WIN/ Field ID: G3SD0099

WBID: 32350

Latitude: 26.75602

(Decimal Degrees)

County: Hendry

ORG ID:

Longitude: -81.39836

(Decimal Degrees)

Receiving Body of Water: Caloosahatchee River

RQ-2018- 09-10-68

Sampling Team Members						Sampling Equipment									
Mary Anne Ouyang Steve Catene Gary Swartz Nicole Kristof						WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	☒ Sample Container ☐ Van Dorn ☐ Pole ☐ Carboy ☒ Syringe ☐ Dipper ☐ Other Depth Measured with <u>Secchi</u> Equipment ID <u>3312B</u>				
											Collection Method				
											☒ Wading ☐ Canoe/Kayak ☐ From Shore ☐ Electric Motor ☒ Other <u>From Bridge</u> ☐ Gasoline Motor				
Water Level: Dry/ Pooled/ Low ☒ Normal ☐ High / Flooded						Meter ID# <u>SNEK</u>					Matrix: <u>Fresh</u> Marine / DI				
Photos: Yes ☒ No ☐ Flow: No Flow / Intestinal ☒ Flowing ☐ NA						Tide: Rising/ Falling/ Slack ☒ NA					Tide Times: High Low				
Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (µmhos/cm)	Temp. (C°)					
EST	1400	0.2	0.1	0.2 ^s	6.14	84.1	6.79	0.23	477.5	32.1					
CEN															
Biological Samples Collected: <u>None</u> HA SCI RPS Algae ID LVS LVI Other:															
SBIO ID Numbers: SBIO-ID: 78918 HA-ID: 15410 RPS-ID: 9104 Macrophyte-ID: 11090 LIMS#:															
Parameter Suite		Parameter Methods					Preservation		Lot#		Expiration		pH Check		
Preserved Nutrients		☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP					☒ Ice ☒ H ₂ SO ₄		SA7275010		10/24/18		☒ <2		
Metals		☒ W-ICPMS ☒ W-ICP					☒ Ice ☒ HNO ₃		7226050		08/14/18		☒ <2		
Filtered Nutrients		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter					☒ Ice								
Chlorophyll		☒ CHLSUITE-W					☒ Ice								
Physical/Aggregate (Fresh)		☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CL-IC / W-COLOR / W-SO4-IC / W-TDS					☒ Ice								
Physical/Aggregate (Marine)		☐ Alkalinity / W-F / W-TSS / TURBIDITY					☐ Ice								
Macroinvertebrates		☐ MI-FW-QLDC					☐ Formalin								
Periphyton		☐ ALGAE-ID					☐ Ice								
Microbiology		☒ E Coli ☐ F Coli ☐ Enterococci					☒ Ice								
Molecular		☐ PCR-FILTER ☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-GFD					☐ Ice								
Tracers		☐ W-E8321-DI ☐ W-E8321-MS					☐ Ice								
Pesticides		☐ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-E8321-DI ☐ W-PCL-SQ-R ☐ WE8321-MS ☐ W-CARB-AA					☐ Ice ☐ Other								
Notes:											Field ID/WIN ID: <u>G3SD0099</u> Location: <u>OK Branch @ Eucalyptus</u>				
Signature: <u>[Signature]</u>											Date: <u>9/11/18</u>				

Enter Field Parameters, Verify Station ID In LIMS DMT:

QC Station ID, Field Parameters In LIMS DMT:

Scan/Save Field Sheets

Migrate Data to WIN:

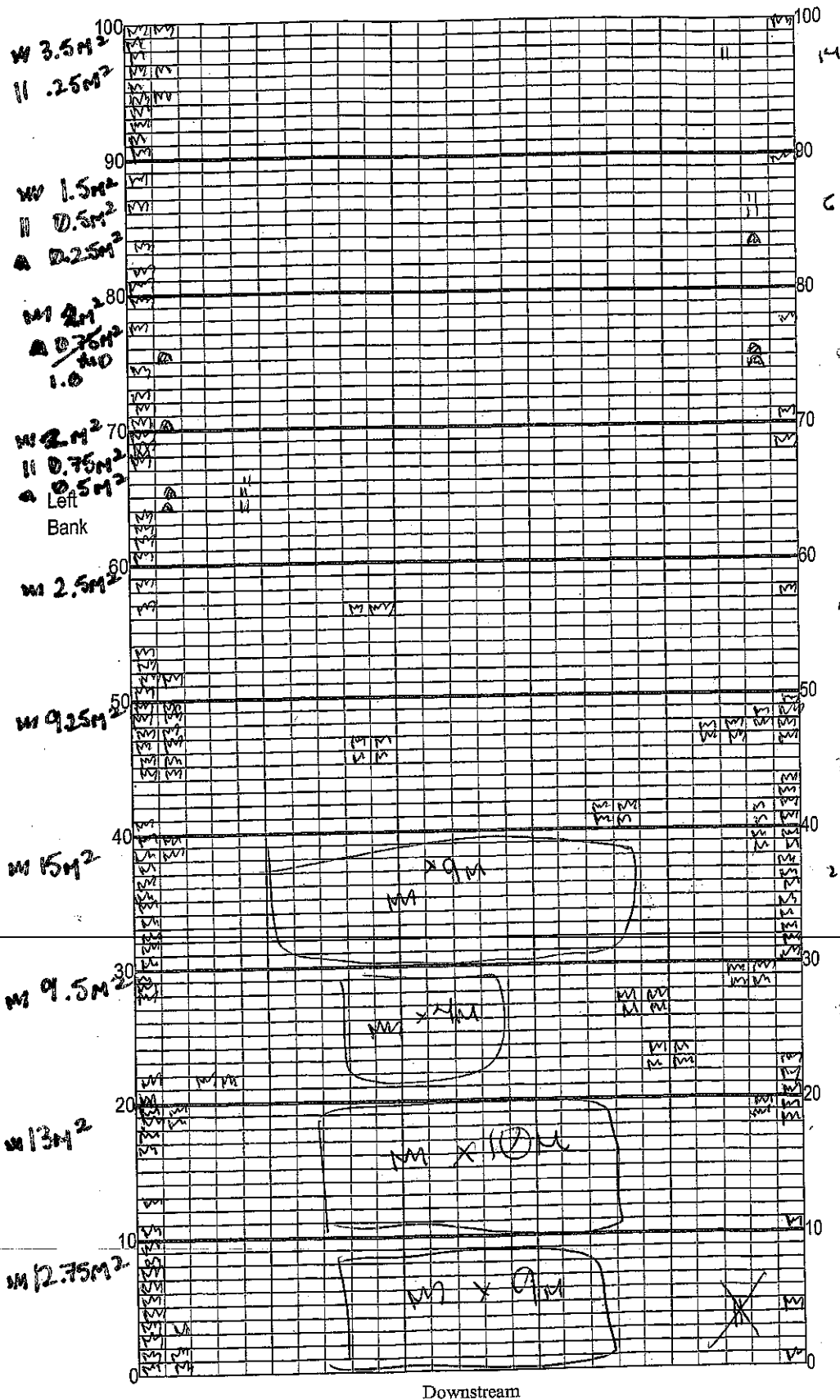
Verify Data In WIN:

(Initials/Date)

(Initials/Date)

(Initials/Date)

DEP-SOP-001/01 Form FD 9000-4
Stream/River Habitat Sketch Sheet



Location: OK Branch

Date: 09/11/2018

Sampler: MO

100 m: Latitude 26.7505259
Longitude -81.3927832

0 m: Latitude 26.75176
Longitude -81.393452

Substrates: Code key, draw proportionate habitat abundance.

11	Snags	0.25
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	Roots/undercut banks	<u>0</u>
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☐ Leaf Packs (or mats) 0

 Aquatic Macrophytes 11.875

 ROCKS 0.29

Age Group	No opinion	Not a good idea	A good idea	A very good idea
18-24	10%	10%	50%	30%
25-34	10%	10%	65%	15%
35-44	10%	10%	55%	25%
45-54	10%	10%	45%	35%
55-64	10%	10%	40%	40%
65+	10%	10%	35%	45%

☐ Pools total # observed = 7
range expected = 1-2

Average width 6 m

Average depth 0.5 m

Velocity measured at 0 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:

* 1 Bay = .25 m²

velocity = 65 m/s

$$= 0.17 \text{ m/s}$$

12.42% habitat

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

SAMPLING AGENCY: <u>S Roc</u>		STORET STATION NUMBER: <u>G3SD0099</u>	DATE (MM/DD/YY): <u>09/11/18</u>	RECEIVING BODY OF WATER: <u>Caloosahatchee</u>
REMARKS:	COUNTY: <u>Hendry</u>	LOCATION: <u>Caloosahatchee branch</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>4</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 <u>4</u> 3 2 1
Substrate Availability <u>9</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 <u>9</u> 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>13</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 <u>13</u> 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>6</u> ----- Primary Score <u>32</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 <u>6</u>	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>2</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 <u>2</u> 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>9</u> Left Bank <u>9</u>	10 <u>9</u> <u>R</u>	8 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>7</u> Left Bank <u>2</u>	10 9	8 <u>7</u> 6	5 4	3 <u>2</u> 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>4</u> Left Bank <u>2</u> ----- Secondary Score <u>35</u>	10 9	8 7 6	5 <u>4</u> <u>R</u>	3 <u>2</u> 1 <u>L</u>

67

TOTAL SCORE

Date: <u>09/11/2018</u>	Analyst: <u>MARYANN DUGAN, NICK RUSTAD,</u> <u>STEVEN LOFOWE, GARY ENOREK</u>	Signature: <u>Maryann Dugan</u>
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Signature: Walter Koen

Comments: GARY SNOREN. STEVEN LOFONE

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. **bold is exotic invasive**

Revision Date: March 1, 2014

Site: **OK Reservoir**County: **Alachua**Date: **09/11/2018**Investigator: **Margaret Dugan, Nicole Aschard, Cary Stueck****STEC-24 Colony**

# points ranked 4-6	0
total points assessed	99
% points ranked 4-6	0

Secchi depth: **0.25**

Check accompanying data collected at same site/date.

Algal mat sample	
Habitat Assessment	X
Linear Veg. Survey	X
SCI/Bioecon (circle 1)	
Water sample	X

RA: **2018-09-10-108**

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N - 6)	Canopy Cover	Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N - 6)	Canopy Cover	Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N - 6)	Canopy Cover
0	1	2		40	1	2		80	1	2	
	2	2			2	2			2	2	
	3	2			3	2			3	2	
	4	2			4	2			4	2	
	5	2			5	2			5	2	
	6	2			6	2			6	2	
	7	2			7	2			7	2	
	8	2			8	2			8	2	
	9	2			9	2			9	2	
10	1	2		50	1	2		90	1	2	
	2	2			2	2			2	2	
	3	2			3	2			3	2	
	4	2			4	2			4	2	
	5	2			5	2			5	2	
	6	2			6	2			6	2	
	7	2			7	2			7	2	
	8	2			8	2			8	2	
	9	2			9	2			9	2	
20	1	2		60	1	2		100	1	2	
	2	2			2	2			2	2	
	3	2			3	2			3	2	
	4	2			4	2			4	2	
	5	2			5	2			5	2	
	6	2			6	2			6	2	
	7	2			7	2			7	2	
	8	2			8	2			8	2	
	9	2			9	2			9	2	
30	1	2		70	1	2			1	2	
	2	2			2	2			2	2	
	3	2			3	2			3	2	
	4	2			4	2			4	2	
	5	2			5	2			5	2	
	6	2			6	2			6	2	
	7	2			7	2			7	2	
	8	2			8	2			8	2	
	9	2			9	2			9	2	

Algal Thickness
Rank

N	rough, no algae; slimy; algae to 1 mm
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3 >1mm - 6 mm

4 >6 - 20 mm

5 >20 mm
-10 cm

6 >10 cm

Record "N" for points deeper than the Secchi depth; algae are presumed absent. Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. Note if thickness estimated for deep points which can be seen but not reached.

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 an 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%.

(This fits with
paper margins
and orientation.)User Defined Space.
Location, directions,
samplers, whatever...

Date: 1/2/34

10-2013-10-01-12

1234567890123456
 Field ID
 STORET
 Field ID
 STORET

DEP-SOP-001/01: Form FD 9000-3 (9/19/12)
PHYSICAL/CHEMICAL CHARACTERIZATION FIELD SHEET

RQ-2013-10-07-72
 Date: 1/2/34



User Defined Space.
 Location, directions,
 samplers, whatever...

SAMPLE ID _____ ORG ID 8052
 COUNTY Wendover SAMPLING AGENCY S ROC
 DATE 09/11/2018 TIME _____
 SITE NAME Calumet Creek Branch
 FIELD ID/NAME _____ RECEIVING BODY OF WATER Calumet Creek

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category) : Forest/Natural <u>20</u> Silviculture _____ Field/Pasture <u>30</u> Agricultural _____ Residential <u>50</u> 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) <u>6.0</u> Depth (m)/Velocity (m/sec) Transect <u>0.17</u> m/s <u>0.17</u> m/s <u>0.17</u> m/s
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank : <u>4</u> Right Bank : <u>14</u>			Hydrologic Modification Score (per FT 3101) _____			
High Water Mark: <u>0.3</u> + <u>0.5</u> = <u>0.8</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 Invert PERI % # Times # Times Coverage Sampled Sampled Woody Debris (Snags) _____ Undercut Banks /Roots _____ Leaf Packs or Mat _____ Aquatic Vegetation _____ Rock or Shell Rubble _____ Sand/Silt _____ Sand/Gravel _____ Mud/Muck/Silt _____ Other _____			WATER QUALITY Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M) Top: <u>0.1</u> <u>32.1</u> <u>6.79</u> <u>6.14</u> <u>84.1</u> <u>477.5</u> <u>0.23</u> <u>0.2</u> Mid: _____ Bottom: _____ Meter ID: <u>8NER</u> Meter Verify: Y ☒ N ☐ SITE DEPTH <u>0.2</u>		
Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐			Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐		
Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>SAF2750K</u> Exp: <u>10/01/18</u>			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 ☐		
ABUNDANCE Absent Rare Common Abundant Periphyton: ☒ ☐ ☐ ☐ Fish: ☐ ☐ ☒ ☐ Aquatic Plants: ☐ ☐ ☐ ☒ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐			System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) _____		
WEATHER CONDITIONS / NOTES: ☒ The antecedent hydrologic conditions have been met to my best knowledge.					

SAMPLING TEAM MARIANN DUGAN, NICOLE REISTAD, STEVEN COFONE, GARY SNOREK
SIGNATURE: Mariann Dugan
DATE: 09/11/2018