



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

PAGE ____ OF ____

February 2016

Data Qualified?

Yes No

STORET Station Name: Mississippi River

Date: 06/28/16
(mm/dd/yyyy)

STORET Station ID: G4SE0078

Latitude: 27.403319

WBID: 3188C RQ: 2016-05-09-76

ORG ID: 21FMRP

Longitude: -81.16037

Receiving Body of Water: lake - O

Field ID: G4SE0078

County: Okeechobee

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Duplicate Collection	Blank Collection
<u>Sevel</u>								
<u>Horley</u>								

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☐ Syringe	
☐ Dipper	☐ Other	
Equipment ID		

Collection Method	
☐ Wading	☒ Via Boat
☐ From Shore	☒ Canoe/Kayak
☐ Other (note below)	☒ Electric Motor
	☐ Gasoline Motor

Water Level: Dry / Low / Normal / High / Flooded

Meter ID# L1 Gus Photos: Yes / No

Matrix: Fresh Marine / DI

Tide Falling: Yes / No / NA

Time Zone	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (ppt)	Secchi Disk (m)	Sp COND (µmhos/cm)	Temp. (C°)
EST	1130	0.3	8.5	2.5	33	6.4	0.1	0.9	123	29.6
CEN	1132	8.0		1.9	24	6.3	0.1		205	29.1

Biological Samples Collected: None HA SCI LVS RPS LVI Other

Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☒ TKN / TP / Nox / NH3 / TOC ☐ Other	☐ Ice ☐ H ₂ SO ₄	<u>S284020</u>	<u>9/16</u>	☒ <2
Metals	☒ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO ₃			☐ <2
Filtered Nutrients	☐ oP ☐ Field Filtered 0.45 µm Filter	☐ Ice	Place Preservative Sticker(s) Here (If Available)		
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
BOD	☐ BOD-INHB ☒ BOD-UNIN	☐ Ice			
Physical/Aggregate	☐ TSS / Turbidity / Alkalinity / Color ☐ Other	☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC	☐ Formalin			
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococcus ☐ QPCR	☐ Ice			
Periphyton	☐ ALGAE-ID	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other			

Notes:

Place Label Here
(If Available)

Signature: Sevel

Date: 6/28/16

Field Parameters Entered into LIMS:

(Initials/Date)

Field Parameters QC in LIMS:

(Initials/Date)

Date Migrated to STORET:

(Initials/Date)

Field Sheets Scanned/Saved:

(Initials/Date)

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

SAMPLING AGENCY: <u>HPWPB</u>		STORET STATION NUMBER: <u>G48EC028</u>	DATE (MM/DD/YY): <u>6/28/16</u>	RECEIVING BODY OF WATER: <u>Lake-D</u>
REMARKS: <u>SB, D 76740</u>	COUNTY: <u>Hartland</u>	LOCATION: <u>C-38 Abbe S-6SD</u>	FIELD ID/NAME: <u>G48EC028</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>1</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 <u>1</u>
Substrate Availability <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
Water Velocity <u>2</u> <i>not measurable</i>	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 <u>2</u> 1
Habitat Smothering <u>11</u> ----- Primary Score <u>16</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 <u>11</u>	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>4</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 <u>4</u> 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 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	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 <u>5</u> 4	Less than 6 m of buffer zone due to intensive human activities 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. 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
Right Bank <u>8</u> Left Bank <u>8</u> ----- Secondary Score <u>50</u>				

66 TOTAL SCORE

Date: <u>6/28/16</u>	Analyst: <u>A. Hurley / M. Sewell</u>	Signature: <u>[Signature]</u>
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SBT 767410

SP

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: C-38 Kissimmee					County: H. 310m		Date: 6/8/16		Investigators: Sewell, Huter	
					STORET Station Number: GUSE080					

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			960		5				0
	6					6				
	7					7				
	8		X			8			X	
	9	N				9	N			
10	1	N			70	1	N			
	2		X			2			X	
	3					3				
	4					4				
	5			0		5				0
	6					6				
	7					7				
	8	N	Y			8			X	
	9	N				9	N			
20	1	N			80	1	N			
	2		Y			2			Y	
	3					3				
	4					4				
	5			0		5				0
	6					6				
	7					7				
	8	N	Y			8			X	
	9	N				9	N			
30	1	N			90	1	N			
	2					2			Y	
	3					3				
	4					4				
	5			0		5				0
	6					6				
	7					7				
	8	N				8			X	
	9	N				9	N			
40	1	N			100	1	N			
	2					2			X	
	3					3				
	4					4				
	5			0		5				0
	6					6				
	7					7				
	8	N				8			Y	
	9	N				9	N			
50	1	N								
	2									
	3									
	4									
	5			0						
	6									
	7									
	8									
	9	N								

Secchi depth	0.9
Estimated?	

# points ranked 4-6	0
total points assessed	27
% 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-2016-05-09-76	

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 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%.

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

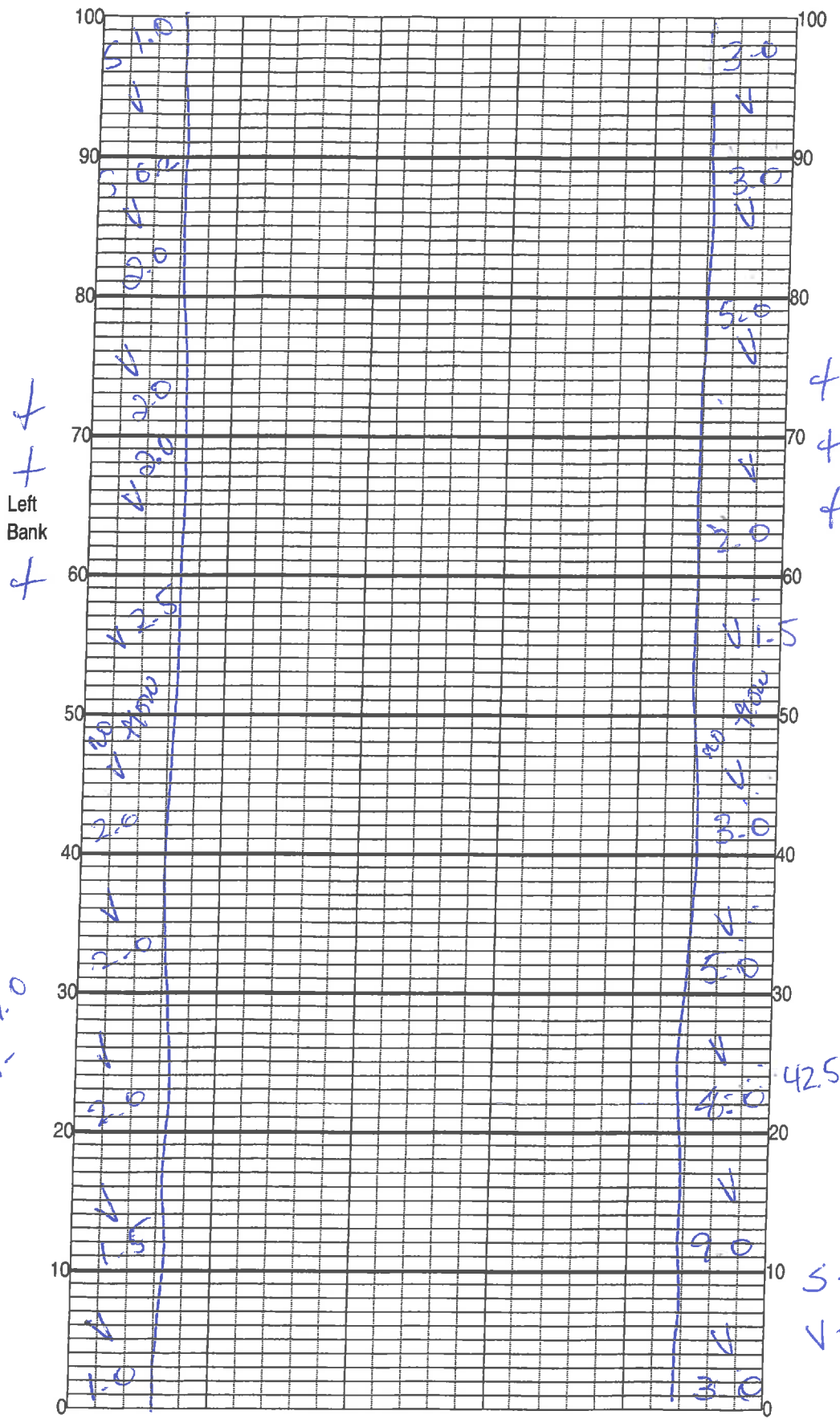
Waterbody: Kissimmee River	Date: 6/28	County: Highlands	Storet Number: G015008
Analyst: Huxley Seal	Signature: Huxley Seal		JP
Comments:			

Comments:

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.

HERBACEOUS SPECIES	Meter Mark										Specimen collected (check)	HERBACEOUS SPECIES	Meter Mark										Specimen collected (check)
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100			0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	
Alternanthera philoxeroides	X	X	X	X	X	X	X	X	X	X		Micranthemum glomeratum											
Bacopa caroliniana												Micranthemum umbrosum											
Bacopa monnieri												Myriophyllum aquaticum								X		✓	
Bidens mitis												Najas guadelupensis											
Boehmeria cylindrica												Nuphar luteum	X	X	X	X	X	X	X	X	X	X	
Centella asiatica												Orontium aquaticum											
Ceratophyllum demersum			X	X								Panicum hemitomon											
Chara												Panicum repens	X	X	X	X	X	X	X	X	X	X	
Cicuta maculata	X				X							Panicum rigidulum											
Cladium jamaicense												Pistia stratioides							X			X	
Colocasia esculenta												Polygonum glabra	↑	X	X	X	X	X	X	X	X	X	
Commelina diffusa												Polygonum hydropiperoides											
Commelina virginica												Polygonum punctatum											
Crinum americanum												Pontedaria cordata											
Diodia virginiana												Potamogeton illinoensis											
Eichhornia crassipes												Ruellia simplex											
Eleocharis (wispy viviparous)												Sacciolepis striata											
Hydrilla verticillata												Sagittaria kurziana											
Hydrocotyle							X	X				Sagittaria lancifolia											
Hygrophila polysperma												Sagittaria latifolia											
Hymenocallis												Salvinia minima	X	X	X	X	X	X	X	X	X	X	
Lachnanthes caroliniana												Samolus parviflorus											
Landoltia punctata												Saururus cernuus											
Lemna	X	X	X	X	X	X	X	X	X	X		Sparganium americanum											
Limnophila sessiflora												Typha	X	X					X	X	X		
Ludwigia leptocarpa												Vallisneria spiralis	X	X									
Ludwigia palustris												Zizania aquatica											
Ludwigia peruviana	X	X	X	X	X	X	X	X	X	X		Salix caroliniana	X	X	X	X	X	X	X	X	X	X	
Ludwigia repens												Acer rubrum	X	X							X	X	
Luziola fluitans												Myrica cerifera	X	X	X						X		
</																							

DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



Location: Kissimmee Rv.
 Date: 6/28/14
 Sampler: A. Hurley

100 m: Latitude _____	Longitude _____
0 m: Latitude _____	Longitude _____
Substrates: Code key, draw proportionate habitat abundance. %	
☒ 5 Snags	8.000
☐ Roots/undercut banks	_____
☐ Leaf Packs (or mats)	_____
☒ V Aquatic Macrophytes	0.5
☐ _____	_____
☐ _____	_____
☒ 0 Pools	total # observed = 0 # range expected = 0-1
Average width <u>100</u> m	
Average depth <u>8.9</u> m	
Velocity measured at <u>100</u> meter mark. <u>not measurable</u>	
WQ & chemistry taken at <u>100</u> meter mark.	
Habitat Smothering: Note areas (on map) where sand or silt is smothering substrates, limiting habitability.	
Bank Stability: <u>+++</u> Note areas (on map) with unstable, eroding banks.	
Riparian Buffer Width: <u>18m</u> Note areas (on map) where natural vegetation is altered or eliminated.	

Plants observed / other notes:

5-1.2
 V-49.5 / 10000

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

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

SAMPLE ID 64SECO78 ORG ID 21FWPP LATITUDE _____
 COUNTY Hartford STORET # 64SECO78 LONGITUDE _____
 DATE 6/28/16 TIME 1130 SAMPLING AGENCY ?
 SITE NAME C-38 KISSING
 FIELD ID/NAME 64SECO78 RECEIVING BODY OF WATER lake-O

RIPARIAN ZONE / STREAM FEATURES

SBTD 76740 JP

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>10</u> Silviculture <u>0</u> Field/Pasture <u>50</u> Agricultural <u>40</u> Residential <u>0</u> Commercial <u>0</u> Industry <u>0</u> Other (Specify) <u>0</u>								Landscape Development Intensity Index (LDI) <u>0</u>
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>100</u> m wide <u>0.01</u> m/s <u>0.01</u> m/s <u>0.01</u> m/s <u>8.5</u> m deep <u>8.5</u> m deep <u>8.5</u> m deep
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>140</u> Right Bank: <u>180</u>				Hydrologic Modification Score (per FT 3101) <u>0</u>				
High Water Mark: <u>1.0</u> + <u>8.5</u> = <u>9.5</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			WATER QUALITY																																																																													
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			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>505940</u> Exp: _____			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 Not Obs. Rare Common Abundant			System Type: Stream ☐ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☒ <u>canal</u>																																																																													
Periphyton: ☐ ☐ ☒ ☐ Fish: ☐ ☐ ☒ ☐ Aquatic Plants: ☐ ☐ ☒ ☐ Iron/Sulfur Bacteria: ☐ ☐ ☐ ☐			AMBIENT FIELD CONDITIONS / NOTES: ☒ The antecedent hydrologic conditions have been met to my best knowledge.																																																																													
SAMPLING TEAM <u>Sewell / Herbert</u>			SIGNATURE <u>mat sed</u>			DATE: <u>6/28/16</u>																																																																										