



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

PAGE ____ OF ____

STORET Station Name: S-154C-300m-upstream-of-structure

March 2016

Data Qualified?
Yes / No

Date: 4/27/16
(mm/dd/yyyy)

STORET Station ID: G4SE0089

Latitude: 27.213565°

WBID: 3207

RQ - 2016-04-25-24

ORG ID: 21FLWPB

Longitude: -80.919138°

(Decimal Degrees)

Receiving Body of Water: Kissimmee River

Field ID: G4SE0089

County: Okeechobee

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

Sampling Team Members

*Must send
Ashley letter*

WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check

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

Meter ID# A23

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	1300	0.3	2.8	1.7	19.7	7.1	0.27	0.5	569	25.2
CEN	1301	2.3		4.8	6.8	7.1	0.28		574	27.9

Biological Samples Collected: None HA SCI VS RPS LVI Other _____

Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☐ H ₂ SO ₄	<u>5289020</u>	<u>9/16</u>	☐ <2
Metals	☒ W-ICPMS ☐ W-ICP	☒ Ice ☐ HNO ₃	<u>5289030</u>	<u>9/16</u>	☐ <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: Muel Sen

Date: 4/28/16

Field Parameters Entered into LIMS: ED 8/4/16

(Initials/Date)

Field Parameters QC in LIMS: WJ 8/4/16

(Initials/Date)

Date Migrated to STORET: 119853

(Initials/Date)

Field Sheets Scanned/Saved: _____

(Initials/Date)

QA/QC Sample Information

Duplicate

Time Zone: EST CEN		Sample Depth (m): _____		Field ID: _____	
Time: _____		Total Depth (m): _____			
Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☐ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☐ Ice ☐ H ₂ SO ₄			☐ < 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			
Microbiology	☐ E Coli ☐ F Coli ☐ Entero ☐ QPCR	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other _____			

Blank

Time Zone: EST CEN		Time: _____		Field ID: _____		Location: _____	
☐ Field Blank ☐ Equipment Blank ☐ Field Cleaned Equipment Blank		Equimnet ID: _____					
Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check		
Preserved Nutrients	☐ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☐ Ice ☐ H ₂ SO ₄			☐ < 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					
Microbiology	☐ E Coli ☐ F Coli ☐ Entero ☐ QPCR	☐ Ice					
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other _____					

Notes:

Signature: _____ Date: _____		Place Label Here (if Available)

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 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Waterbody: L-62 camp	Date: 4/27	County: Okechobee	Store Number: 64562
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Analyst: <u>Seel</u>	Signature: <u>Seel</u>
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Comments: Recently Sprayed For veg control = 4

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.

[illegible]

Less than 2nd

76634

JAP

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: 64SE0581 County: Okeechobee Date: 4/27/16 Investigators: Hunter / Senell

STORET Station Number:

64SE0589

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

Secchi depth 0.5
Estimated? N

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- 2016-04-25-JH

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

56.0 76634

SAMPLING AGENCY: DIFWPP		STORET STATION NUMBER: 6450084	DATE (MM/DD/YY): 4/27	RECEIVING BODY OF WATER: Kassimere
REMARKS: Spaced for veg count	COUNTY: Cherokee	LOCATION: S-154C	FIELD ID/NAME: 6450084	

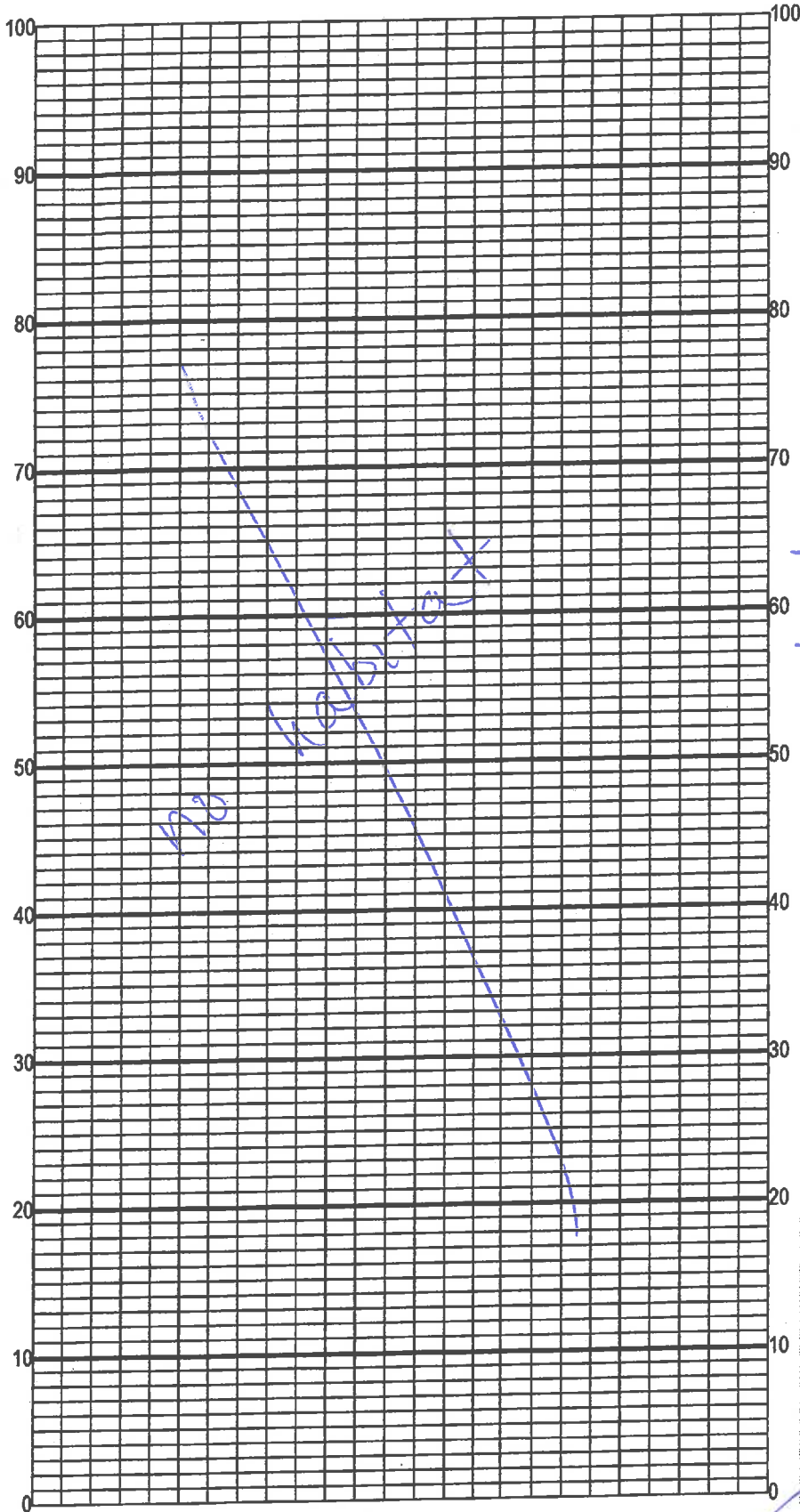
Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more major productive habitats present (snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock)	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh 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	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability	Greater than 30% major productive habitat present at site	16% to 30% major productive habitat, by aerial extent	6% to 15% major productive habitat	Less than 5% major productive habitat
Water Velocity	Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec ≥ 0.33 0.31 0.29 0.27 > 0.25	Max. observed at typical transect: > 0.1 to 0.25 m/sec 0.25 0.21 0.17 0.13 > 0.1	Max. observed at typical transect: 0.05 to 0.1 m/sec 0.1 0.09 0.07 0.06 0.05	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
Habitat Smothering	Adequate number of stable pools (1-2 per 12 times width) and < 25% of habitats affected by sand, silt, or algae.	Adequate number of stable pools (1-2 per 12 times width) and > 25% of habitats affected by sand, silt, or algae.	Does not have required number of stable pools (1-2 per 12 x width) and/or has shallow pools (< 2 x prevailing depth).	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation.
Primary Score	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	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	20 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 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 root zone with raw, eroded areas.
Right Bank Left Bank	10 9	8 7 6	5 4	3 2 1
Riparian Buffer Zone Width	Width of vegetation greater than 18 m	Width of vegetation > 12 to 18 m	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 Left Bank	10 9	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 Left Bank	10 9	8 7 6	5 4	3 2 1
Secondary Score				

27 TOTAL SCORE

Date: 4/28/16	Analyst: A. Hurley	Signature: [Signature]
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Sho 76634

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



Location: _____
 Date: 4/28/16
 Sampler: _____

100 m: Latitude _____	
Longitude _____	
0 m: Latitude _____	
Longitude _____	
Substrates: Code key, draw proportionate habitat abundance. %	
☐	Snags _____
☐	Roots/undercut banks _____
☐	Leaf Packs (or mats) _____
☐	Aquatic Macrophytes _____
☐	_____
☐	_____
☐	Pools _____
total # observed = _____	
# range expected = _____	
Average width <u>30</u> m	
Average depth _____ m	
Velocity measured at <u>50</u> meter mark.	
WQ & chemistry taken at <u>50</u> meter mark.	
Habitat Smothering: <u>slight silt</u>	
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.	

Secs/ Meter	Flow m/s	Secs/ Meter	Flow m/s	Plants observed / other notes:	
1	1	12	0.08	hydrocotyle alternanthera pistia hemitomen Veg recently Sprayed	
2	0.5	13	0.076		
3	0.33	14	0.071		
4	0.25	15	0.066		
5	0.2	16	0.062		
6	0.16	17	0.058		
7	0.14	18	0.055		
8	0.12	19	0.052		
9	0.11	20	0.052		
10	0.1	21	0.047		
11	0.09	22	No Flow		
Prod. Habitat	1	2	3	4	5
Sweeps Major	10	7	5	4	3
Sweeps Minor	10	6	5	4	5

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

30m

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

SAMPLE ID 04520089 ORG ID 21F1WPB LATITUDE 27.23565
COUNTY 01Hartford STORET # 04520089 LONGITUDE -80.919138
DATE 4/27/16 TIME _____ SAMPLING AGENCY 21F1WPB
SITE NAME _____
FIELD ID/NAME 8.0 v.s. = 76634 RECEIVING BODY OF WATER KISSIMMEE

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)		
		<u>50</u>	<u>40</u>	<u>10</u>					
Local Watershed Erosion (select one): ☐ None ☒ Slight ☐ Moderate ☐ Heavy						Typical Width (m) Depth (m)/Velocity (m/sec) Transect			
Local Watershed NPS Pollution: ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy						<u>30</u> m wide			
Width of Riparian Vegetation (m) on Each Buffer Side				Hydrologic Modification Score (per FT 3101)					
Left Bank: <u>0</u>		Right Bank: <u>0</u>							
High Water Mark: <u>0.5</u> + <u>2.8</u> = <u>3.3</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No					
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							
				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>25.8</u>	<u>7.1</u>	<u>4.8</u>	<u>62</u>	<u>569</u>	<u>0.27</u>	<u>0.5</u>
Mid:											☐ VOB
Bottom:				<u>2.3</u>	<u>21.9</u>	<u>7.1</u>	<u>1.7</u>	<u>19</u>	<u>574</u>	<u>0.28</u>	TOTAL DEPTH <u>2.8</u>
Meter ID: <u>AK 3</u>											
Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐				Water Surface Oils Normal ☒ Sheen ☐ Globs ☐ Slick ☐ Other ☐							
Water Sample Taken? ☒ Yes ☐ No				Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) ☐							
Sample Preserved? ☒ Yes ☐ No				Clarity Clear ☐ Slightly Turbid ☐ Turbid ☒ Opaque ☐							
Lot Number: <u>53500</u> Exp: <u>2/18</u>											
Algae Sample Taken? ☐ Yes ☒ No											
Sample Preserved? ☐ Yes ☒ No											
Lot Number: _____ Exp: _____											
System Type: Stream ☐ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☒ <u>canal</u>											
ABUNDANCE				AMBIENT FIELD CONDITIONS / NOTES:							
Periphyton:	Not Obs.	Rare	Common	Abundant							
Fish:				☒							
Aquatic Plants:			☒								
Iron/Sulfur Bacteria:	☒										
The antecedent hydrologic conditions have been met to my best knowledge.											
SAMPLING TEAM <u>Matthew Sewell / Horley</u>				SIGNATURE: <u>Matthew Sewell</u>							
				DATE: <u>4/27/16</u>							