



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

PAGE 1 OF 1

January 2017

Data Qualified?

Yes / No

STORET Station Name: C-25 Canal West @ Godwin Rd.

Date: 02/09/2017
(mm/dd/yyyy)

STORET Station ID: G2SE0001

WBID: 3160

Latitude: 27.470440°

County: St. Lucie RQ - 2017-02-06-18

ORG ID: 21FLWPB

Longitude: -80.481009°

Receiving Body of Water:

Field ID: G2SE0001

Sampling Team Members

Jordan Skaggs
Mett Sewell
Drew Iddick

WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
X	X	X	X	X
	X	X	X	X
	X	X	X	X

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 / Pooled / Low / Normal / High / Flooded

Matrix: Fresh / Marine / DI

Meter ID# AE3 Photos: Yes / No

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	0.5	10.2	116	7.9	0.9	0.7	1829	21.7
CEN	1259	2.3	2.8	8.3	91	7.7	0.9		1838	20.7

Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other

SBIO ID Numbers: SBIO-ID: RPS-ID: Macrophyte-ID: LIMS#:

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 ☒ H2SO4	6209120	7/17	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO2			☐ <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-CH-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 ☐ Entero ☐ PCR-FILTER	☐ Ice			
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other			

Place Preservative Sticker(s) Here
(If Available)

Notes:

MATV

Place Label Here
(If Available)

Signature:

Date:

Field Parameters Entered into LIMS: 3/16/17
(Initials/Date)

Field Parameters QC in LIMS: 3/22/17 AH
(Initials/Date)

Date Migrated to STORET: 121327 DL on 6/14/17

Field Sheets Scanned/Saved: 4/12/17 DL

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

SAMPLE ID <u>G05E001</u>	ORG ID <u>21FLWPS</u>	LATITUDE <u>27.470440</u>
COUNTY <u>St Louis</u>	STORET # <u>G05E001</u>	LONGITUDE <u>-80.481009</u>
DATE <u>2/2/17</u>	TIME <u>1:30</u>	SAMPLING AGENCY <u>DEP SE</u>
SITE NAME <u>G05E001 L-25 W @ Godwin Rd</u>		
FIELD ID/NAME <u>G05E001</u>	RECEIVING BODY OF WATER <u>IRL</u>	

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 ☐ m wide <u>35</u> m wide ☐ m/s <u>0.01</u> m/s ☐ m/s ☐ m deep <u>2.8</u> m deep ☐ m deep
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: ☐ Right Bank: ☐ Hydrologic Modification Score (per FT 3101) ☐		
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 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 <table border="1"> <thead> <tr> <th></th> <th>% Coverage</th> <th>INVERT # Times Sampled</th> <th>PERI # Times Sampled</th> </tr> </thead> <tbody> <tr> <td>Woody Debris (Snags)</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Undercut Banks / Roots</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Leaf Packs or Mat</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Aquatic Vegetation</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Rock or Shell Rubble</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Sand</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Mud / Muck / Silt</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Other</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Other</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </tbody> </table>			% 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 <table border="1"> <thead> <tr> <th></th> <th>Depth (M)</th> <th>Temp. (°C)</th> <th>pH (SU)</th> <th>D.O. (MG/L)</th> <th>D.O. Sat (%)</th> <th>Cond. (UMHO/CM)</th> <th>Salinity (PPT)</th> <th>SECCHI (M)</th> </tr> </thead> <tbody> <tr> <td>Top:</td> <td><u>0.3</u></td> <td><u>21.7</u></td> <td><u>7.9</u></td> <td><u>10.2</u></td> <td><u>116</u></td> <td><u>1829</u></td> <td><u>0.7</u></td> <td><u>0.7</u></td> </tr> <tr> <td>Mid:</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Bottom:</td> <td><u>2.3</u></td> <td><u>20.7</u></td> <td><u>7.9</u></td> <td><u>8.3</u></td> <td><u>91</u></td> <td><u>1838</u></td> <td><u>0.9</u></td> <td><u>2.8</u></td> </tr> </tbody> </table> Meter ID: <u>AE3</u>					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>21.7</u>	<u>7.9</u>	<u>10.2</u>	<u>116</u>	<u>1829</u>	<u>0.7</u>	<u>0.7</u>	Mid:	☐	☐	☐	☐	☐	☐	☐	☐	Bottom:	<u>2.3</u>	<u>20.7</u>	<u>7.9</u>	<u>8.3</u>	<u>91</u>	<u>1838</u>	<u>0.9</u>	<u>2.8</u>
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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: _____ 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 Periphyton: ☐ ☒ ☐ ☐ Fish: ☐ ☒ ☐ ☐ Aquatic Plants: ☐ ☒ ☐ ☐ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐		System Type: Stream ☐ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☒ <u>canal</u>																																																																															
AMBIENT FIELD CONDITIONS / NOTES: ☒ The antecedent hydrologic conditions have been met to my best knowledge.																																																																																	
SAMPLING TEAM <u>Sewell / Strauss</u>		SIGNATURE: <u>Sewell</u>		DATE: <u>2/2/17</u>																																																																													

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

SAMPLING AGENCY: <u>DEP SE</u>		STORET STATION NUMBER: <u>G2 SE0001</u>	DATE (MM/DD/YY): <u>2/9/17</u>	RECEIVING BODY OF WATER: <u>IRL</u>
REMARKS:	COUNTY: <u>St. Lucie</u>	LOCATION: <u>C-25 W</u>	FIELD ID/NAME: <u>G2SE0001</u>	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <u>3</u>	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock] 20 19 18 17 16	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags) 15 14 13 12 11	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed 10 9 8 7 6	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered 5 4 <u>3</u> 2 1
Substrate Availability <u>2</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 3 <u>2</u> 1
Water Velocity <u>2</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 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 _____	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 Artificial Channelization <u>1</u>	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. 20 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging 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 <u>1</u>
Bank Stability Right Bank <u>2</u> Left Bank <u>3</u>	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 <u>2</u> 1
Riparian Buffer Zone Width Right Bank <u>1</u> Left Bank <u>1</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 <u>1</u>
Riparian Zone Vegetation Quality Right Bank <u>1</u> Left Bank <u>1</u> ----- Secondary Score _____	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 <u>1</u>

26

TOTAL SCORE

Date: <u>2/9/17</u>	Analyst: <u>sew</u>	Signature: <u>[Signature]</u>
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DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: C-25 west County: A. Wal Date: 02/09/17 Investigators: Senell/Skaggs

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

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STORET Station Number: G2SE001

Secchi depth 0.7
Estimated?

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-2017-02-06-18

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

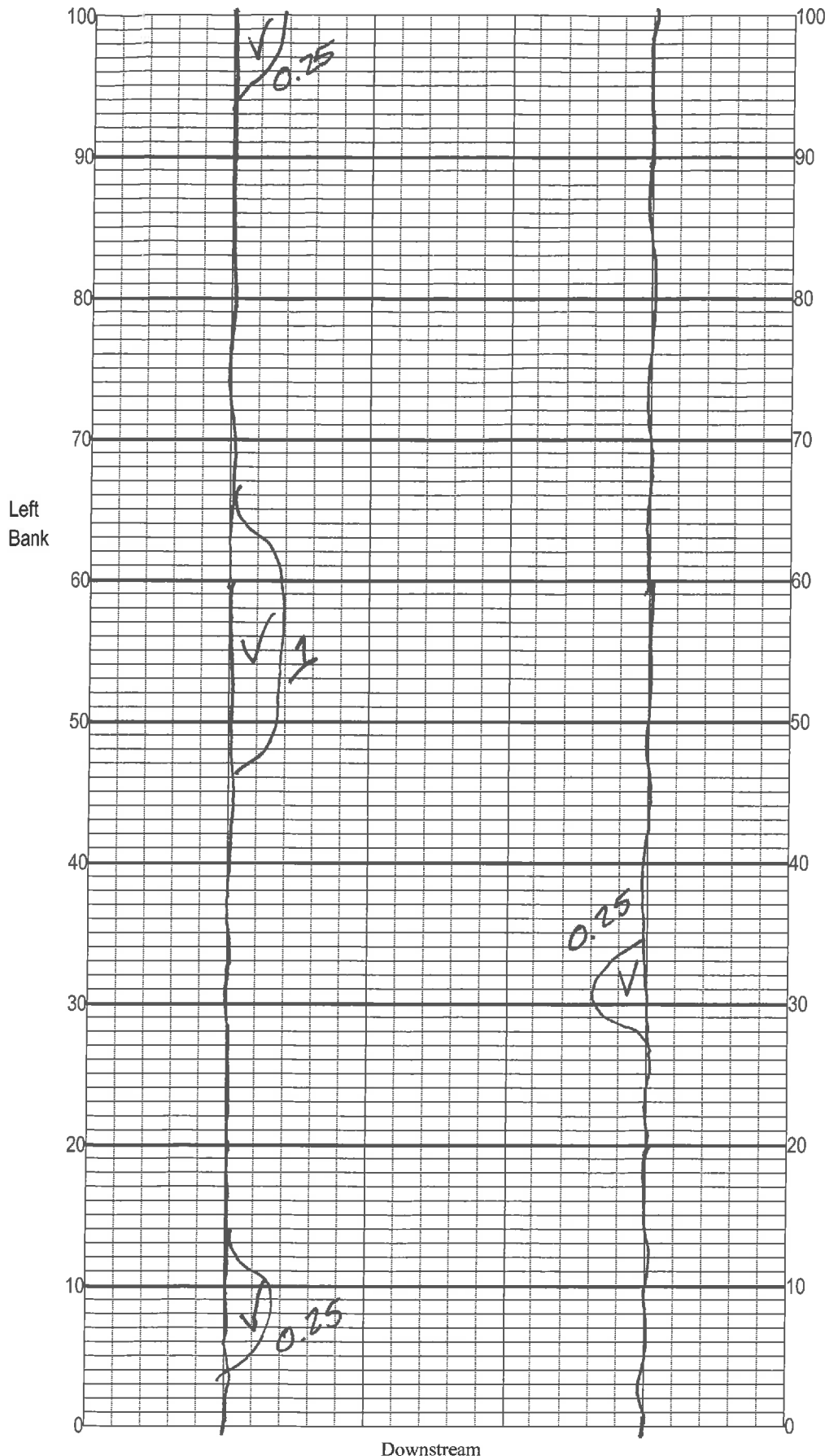
Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached.

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 9000-4 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: C-25 west
Date: 2/9/17
Sampler: Senell/Skaggs

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 = <u>0</u>	
# range expected = <u>0</u>	
Average width _____ m	
Average depth <u>3.0</u> m	
Velocity measured at <u>0</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:

- *Pistia stratiotes*
- vegetation managed by SFWM

Waterbody: C-59	Date: 2/9/17	County: St. Louis	Storet Number: 625E001
Analyst: Seid	Signature: Seid		
Comments: Vegetation marked by sfwm1			

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]