



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

PAGE 1 OF 1

Data Qualified?
Yes / No

October 2016

STORET Station Name: Dora Canal 500 yards from Hwy 19 Bridge Date: 12/1/16
STORET Station ID: 20020366 WBID: 2831A Latitude: 28.80341853
County: Lake RQ: 2016-11-28-41 ORG ID: 2FLIEN Longitude: -81.7414392
Receiving Body of Water: Lk. Dora Field ID: G1CE0033

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Terry Riordan		☒	☒	☒	☒	☒
Katie Williams		☒	☒	☒	☒	☒

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	Matrix:	Fresh / Marine / Di
Meter ID#	<u>Betta/67</u>	Photos:	<u>Yes</u> / No
Tide Falling:	Yes / No / <u>NA</u>		

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	1104	0.3	1.5	4.0	48	6.0	0.2	0.9	423	20.9
CEN		1.0		4.0	45	6.4	0.2		422	20.9

Biological Samples Collected:	None	HA	SCI	LVS	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 ☒ H2SO4			☒ <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			
Microbiology	☐ E Coli ☐ F Coli ☐ Entero ☐ QPCR						☐ Ice			
Periphyton	☐ ALGAE-ID						☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA R						☐ Ice			
	☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH						☐ Other			

Notes:	Date:
Dora Canal 500 yards from Highway 19 Bridge RQ-2016-11-28-41 Date: 12/01/16 Signature: <u>[Signature]</u>	12-1-16

Field Parameters Entered into LIMS:	Field Parameters QC in LIMS:
<u>KWW 12/8/16</u>	
(Initials/Date)	(Initials/Date)
Date Migrated to STORET:	Field Sheets Scanned/Saved:
(Initials/Date)	(Initials/Date)

Contains
1:1
Sulfuric Acid
SA-6242080
EXP: 08/29/17
Warning!
See SDS

G1CE0033
Field ID ↑
STORET ↓
20020366

88

FDEP FORM FD 9000-3: PHYSICAL/CHEMICAL CHARACTERIZATION FIELD SHEET

SAMPLE ID _____ ORG ID 21FLUEN LATITUDE 28.80341853
 COUNTY Lake STORET # 20020366 LONGITUDE -81.7414392
 DATE 12/1/16 TIME _____ SAMPLING AGENCY 21FLUEN RW FDEP
 SITE NAME Dora Canal 500 yds from Hwy 19 Bridge
 FIELD ID/NAME GIL0033 RECEIVING BODY OF WATER LK Dora

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>50</u> Silviculture _____ Field/Pasture _____ Agricultural _____ Residential <u>50</u> Commercial _____ Industry _____ Other (Specify) _____								Landscape Development Intensity Index (LDI) _____
Local Watershed Erosion (select one): ☐ None ☒ Slight ☐ Moderate ☐ Heavy				Typical Width (m) Depth (m)/Velocity (m/sec) Transect _____ m wide				
Local Watershed NPS Pollution: ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy				Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>718</u> Right Bank: <u>718</u>				
High Water Mark: <u>0.3</u> + <u>1.5</u> = <u>1.8</u> (m) (above present water level) (present depth) (above bed)				Hydrologic Modification Score (per FT 3101) _____				
Artificially Impounded ☐ Yes ☒ No				Canopy Cover % ☐ Open ☐ Lightly Shaded (11-45%) ☐ Heavily Shaded ☒ Moderate Shaded (46-80%)				
Artificially ☐ No ☐ Mostly recovered, more sinuous Channelized: ☒ Some recovery ☐ Recent, severe								

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 <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>20.9</u></td> <td><u>6.0</u></td> <td><u>4.0</u></td> <td><u>45</u></td> <td><u>423</u></td> <td><u>0.2</u></td> <td><u>0.9</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>1.0</u></td> <td><u>20.9</u></td> <td><u>6.4</u></td> <td><u>4.0</u></td> <td><u>45</u></td> <td><u>422</u></td> <td><u>0.2</u></td> <td>_____</td> </tr> </tbody> </table>							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>20.9</u>	<u>6.0</u>	<u>4.0</u>	<u>45</u>	<u>423</u>	<u>0.2</u>	<u>0.9</u>	Mid:	_____	_____	_____	_____	_____	_____	_____	_____	Bottom:	<u>1.0</u>	<u>20.9</u>	<u>6.4</u>	<u>4.0</u>	<u>45</u>	<u>422</u>	<u>0.2</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>20.9</u>	<u>6.0</u>	<u>4.0</u>	<u>45</u>	<u>423</u>	<u>0.2</u>	<u>0.9</u>																																				
Mid:	_____	_____	_____	_____	_____	_____	_____	_____																																				
Bottom:	<u>1.0</u>	<u>20.9</u>	<u>6.4</u>	<u>4.0</u>	<u>45</u>	<u>422</u>	<u>0.2</u>	_____																																				
Woody Debris (Snags) _____ Undercut Banks / Roots _____ Leaf Packs or Mat _____ Aquatic Vegetation _____ Rock or Shell Rubble _____ Sand _____ Mud / Muck / Silt _____ Other _____ Other _____			Invert ☐ PERI ☐ % Coverage ☐ # Times Sampled ☐ # Times Sampled ☐			Meter ID: <u>Betty 67</u> Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>6242080</u> Exp: <u>8/17</u> 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) <u>canal</u>			AMBIENT FIELD CONDITIONS NOTES: <u>overcast, cool</u> ☒ The antecedent hydrologic conditions have been met to my best knowledge.																																									
SAMPLING TEAM <u>Katie Williams, Terry Rindan</u>			SIGNATURE <u>Kutllama</u>			DATE: <u>12/1/16</u>																																						

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Dora Canal</u>					County: <u>Lake</u>		Date: <u>12/1/14</u>		Investigators: <u>KMUL, TR</u>	
					STORET Station Number: <u>20020364</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	3		86	60	1	N		76
	2	X							
	3	N	✓						
	4		✓						
	5		✓						
	6		✓						
	7		✓						
	8	X							
	9	3							
10	1	3		86	70	1	3		34
	2	X	✗						
	3	N	✓						
	4		✓						
	5		✓						
	6		✓						
	7		✓						
	8	X							
	9	3							
20	1	2		90	80	1	3		90
	2	N	✓						
	3		✓						
	4		✓						
	5		✓						
	6		✓						
	7		✓						
	8	X							
	9	3							
30	1	3		72	90	1	3		96
	2	3							
	3	N	✓						
	4		✓						
	5		✓						
	6		✓						
	7		✓						
	8	X							
	9	3							
40	1	3		82	100	1	3		96
	2	X							
	3	N	✓						
	4		✓						
	5		✓						
	6		✓						
	7		✓						
	8	3							
	9	3							
50	1	3		84		1	N		
	2	X							
	3	N	✓						
	4		✓						
	5		✓						
	6		✓						
	7		✓						
	8		✓						
	9	3							

Secchi depth	0.9
Estimated?	

# points ranked 4-6	1
total points assessed	99
% points ranked 4-6	1

Check accompanying data collected at same site/date.	
Algal mat sample	
Linear Veg Survey	✓
Habitat Assessment	✓
SCI/Biorecon	
Water sample	✓
RQ- 2016-11-28	

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

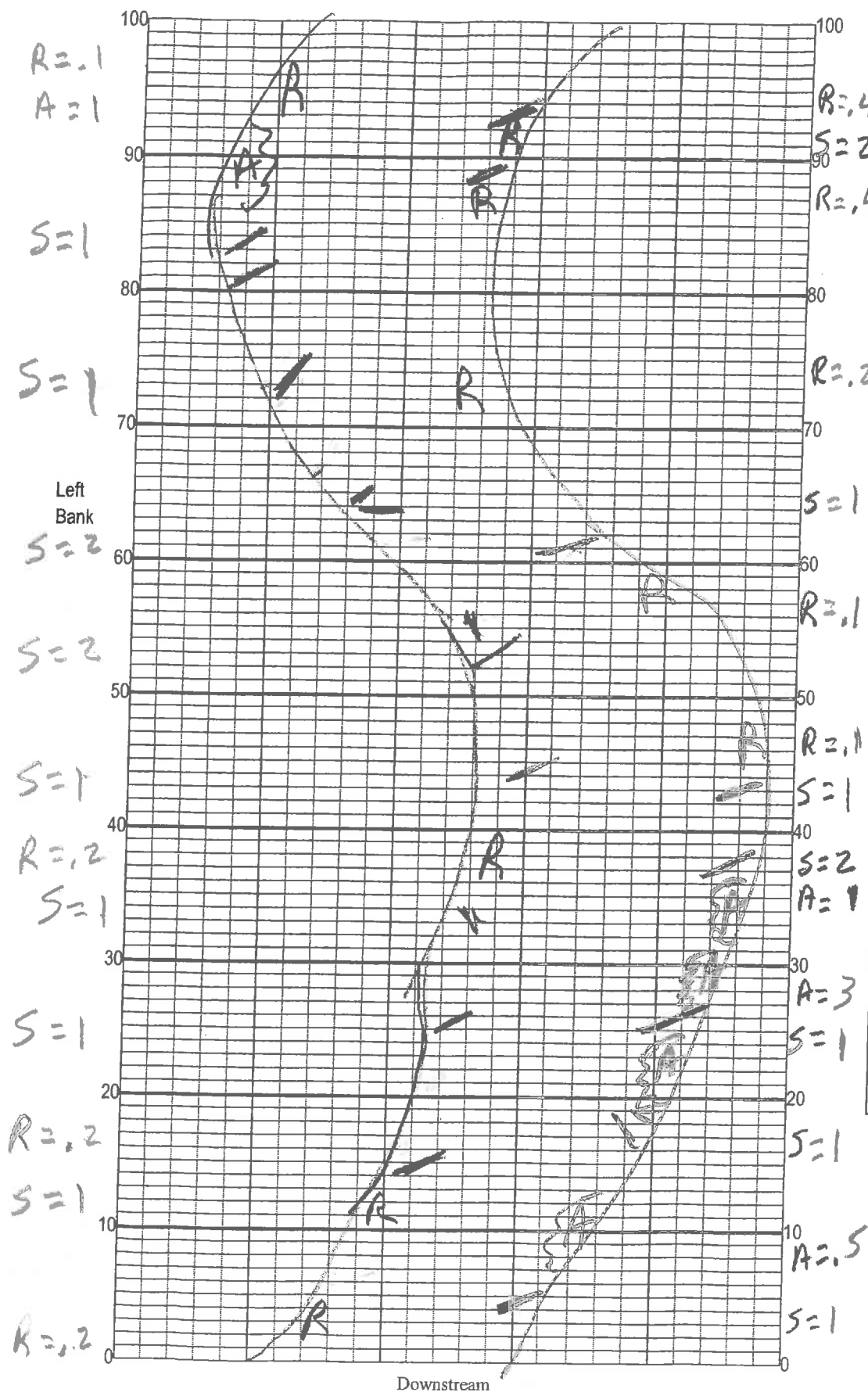
SAMPLING AGENCY: <u>21FLUEN</u>		STORET STATION NUMBER: <u>20020366</u>	DATE (MM/DD/YY): <u>12/1/14</u>	RECEIVING BODY OF WATER: <u>Lk Dora</u>
REMARKS:	COUNTY: <u>Lake</u>	LOCATION: <u>Dora Canal</u>	FIELD ID/NAME: <u>GILE0033</u>	

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>11</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 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 3 2 1
Water Velocity <u>10</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 2 1
Habitat Smothering <u>13</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 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 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>15</u>	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 <u>9</u> Left Bank <u>9</u>	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 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>10</u> Left Bank <u>10</u>	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 <u>8</u> Left Bank <u>8</u> ----- Secondary Score <u>69</u>	10 9	8 7 6	5 4	3 2 1

TOTAL SCORE

Date: <u>12/1/14</u>	Analyst: <u>Katie Williams</u>	Signature: <u>KWilliams</u>
----------------------	--------------------------------	-----------------------------

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



Location: Dora Canal
 Date: 12-1-16
 Sampler: Terry Riordan

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

Substrates: Code key, draw proportionate habitat abundance.	%
Snags	0.7
Roots/undercut banks	0.07
Leaf Packs (or mats)	
Aquatic Macrophytes	0.2
Pools	
total # observed = _____	
# range expected = _____	

Average width 25 m
 Average depth 1.5 m

Velocity measured at _____ meter mark.

WQ & chemistry taken at 10 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:
Vallisneria
Pontederic
Blackgum
Popash
Taxodium

Fringe of cypress knees
 both sides ~0.5-0.7w

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

Total
 S=18
 R=1.9
 A=4.5

S=8
 R=1.2
 A=4.5

Revision Date: March 1, 2014

Waterbody: Dora Canal

Date: 12/1/16

County: Lake

Storet Number: 20020366

Analyst: Katie Williams

Signature: William

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	
<i>Alternanthera philoxeroides</i>													<i>Micranthemum glomeratum</i>												
<i>Bacopa caroliniana</i>													<i>Micranthemum umbrosum</i>												
<i>Bacopa monnieri</i>													<i>Myriophyllum aquaticum</i>												
<i>Bidens mitis</i>													<i>Najas guadelupensis</i>												
<i>Boehmeria cylindrica</i>													<i>Nuphar luteum</i>												
<i>Centella asiatica</i>													<i>Orontium aquaticum</i>												
<i>Cephalanthus occidentalis</i>													<i>Panicum hemitomon</i>												
<i>Ceratophyllum demersum</i>													<i>Panicum repens</i>												
<i>Chara</i>													<i>Panicum rigidulum</i>												
<i>Cicuta maculata</i>													<i>Pistia stratioides</i>												
<i>Cladium jamaicense</i>													<i>Polygonum glabra</i>												
<i>Colocasia esculenta</i>													<i>Polygonum hydropiperoides</i>												
<i>Crinum americanum</i>													<i>Polygonum punctatum</i>												
<i>Diodia virginiana</i>													<i>Pontedaria cordata</i>	/											
<i>Eichhornia crassipes</i>													<i>Potamogeton illinoensis</i>												
<i>Eleocharis (wispy viviparous)</i>													<i>Ruellia simplex</i>												
<i>Hydrilla verticillata</i>													<i>Sacciolepis striata</i>												
<i>Hydrocotyle</i>													<i>Sagittaria kurziana</i>												
<i>Hygrophila polysperma</i>													<i>Sagittaria lancifolia</i>												
<i>Hymenocallis</i>													<i>Sagittaria latifolia</i>												
<i>Itea virginica</i>													<i>Salix caroliniana</i>												
<i>Lachnanthes caroliniana</i>													<i>Salvinia minima</i>	/	/	/	/	/	/	/	/	/	/		
<i>Landoltia punctata</i>													<i>Samolus parviflora</i>												
<i>Lemna</i>	/	/	/	/	/	/	/	/	/	/	/		<i>Saururus cernuus</i>												
<i>Limnophila sessiflora</i>													<i>Typha</i>												
<i>Ludwigia leptocarpa</i>													<i>Vallisneria americana</i>	/	/						/				
<i>Ludwigia palustris</i>													<i>Zizania aquatica</i>												
<i>Ludwigia peruviana</i>													<i>Taxodium</i>	/	/	/	/	/	/	/	/	/	/		
<i>Ludwigia repens</i>													<i>Nyssa</i>	/	/										