



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

March 2017

PAGE 1 OF 1

Data Qualified?

Yes / No

Location/STORET Station Name: WILLIAMS LAKE

Date: 06/07/2018
(mm/dd/yyyy)

STORET # G1SW0071

WBID: 1493D

Latitude: 28.09916111

County: Hillsborough

RQ: 2018-06-04-08

ORG ID: 21FLTPA

Longitude: -82.60273611

(Decimal Degrees)

(Decimal Degrees)

Receiving Body of Water:

Field ID: G1SW0071

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
J. ASHROD									
B. PASWATER					X		X	X	X
S. MEYER					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# CHENY		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	1335	0.3	3.9	8.38	112	7.76		1.7	188	30.8
CEN		3.4		5.50	65	6.8			188	28.2

Biological Samples Collected: None / HA / SCI / RPS / Algae ID / LVS / LVI / Other	
SBIO ID Numbers: SBIO-ID: 78709 RPS-ID: Macrophyte-ID: 11012 LIMS#: 1998966	

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	SA7275010	10/02/18	☐ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <2
Filtered Nutrients	☒ W-P04-F ☒ Field Filtered 0.45 µm Filter	☐ Ice			
Chlorophyll	☒ CHLSUTE-W	☐ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-C-IC / W-COLOR / W-SO4-IC / W-TDS	☐ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MF-FW-QLDC	☐ Formalin			
Periphyton	☐ ALGAE-ID	☐ Ice			
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci ☐ qPCR	☐ Ice			
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Ice ☐ Other			

Notes:		Field ID/WIN	G1SW0071
Access granted by Vincent Alterio in 2017. 10519 Lake Williams Dr 813-926-5176 (H) or 727-580-7802. No need to call ahead Kit A, LVI		Site Name: Williams Lake	
Signature: [Signature]		Date: 6-7-18	

Field Parameters Entered into LIMS: SM 08/09/2018 (Initials/Date)		Field Parameters QC in LIMS: SM 08/29/2018 (Initials/Date)	
Date Migrated to STORET: SM 08/29/2018 7059 (Initials/Date)		Field Sheets Scanned/Saved: SM 09/17/2018 (Initials/Date)	
Verified SM 09/17/2018			

DEP Form FD 9000-6: Lake Habitat Assessment Field Sheet

STORET STATION NUMBER: SEE STICKER UPPER RIGHT	LAKE SIZE: <i>SMALL</i>	LAKE NAME: <i>WILLIAMS LAKE</i>		FIELD ID / NAME: PUT STICKER ^													
ECO-REGION:	COUNTY: <i>HILLS</i>	SAMPLING LOCATION/DESCRIPTION:		<i>G15W0071</i>													
PARAMETER	No surface inflow or outflow present; very long water residence time, groundwater seepage dominates	Surface water inflow present, but flow is rare, moderate to long water residence time	Surface water inflow and outflow present (or outflow only), sometimes with visible flow, short water residence time	Impounded, hydrology of system artificially controlled													
HYDROLOGY	☐	☐	☒	☐													
Color	Very clear, uncolored water (benthic sampling appropriate) ☐	Water somewhat tannin stained (benthic sampling appropriate) ☒	Dark, discolored water (water color 20 PCU or higher) ☐	Visibility extremely reduced due to high color ☐													
	Optimal	Suboptimal		Marginal													
Secchi	Secchi > 3 m	3	2.6	2.2	1.8	1.4	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.3	0.2	0.1	
	Or VOB	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5
Vegetation Quality	Diverse, expected native vegetation (emergent or submersed), less than 5% nuisance taxa	Mostly expected native plants, but moderate growths (6%-20% of lake) of nuisance macrophytes, or more than 50% of lake covered with plants		Large masses (21%-40%) of nuisance macrophytes (e.g., Hydrilla, hyacinth, cattail, etc.) or algal mats		Lake choked (>40%) with nuisance macrophytes (duckweed, hyacinth, etc.) or algal mats, or few plants present at all (e.g., plants removed)											
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4
Stormwater Inputs	Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation	Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place		Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place		Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place											
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4
Bottom Substrate Quality	Diverse mixture of sand, detritus, with small amounts of CPOM/mud/muck. SAV may be present	Mixture of sand or clay and detritus with higher % CPOM/mud/muck content. SAV may be present		Moderate layer of CPOM/mud/muck, or hardpacked sand only, or moderate algal growth (mats or Chara) on bottom		Thick deposits of CPOM, or fine detritus and anaerobic muck/mud/silt, or algal growth or nuisance plants (Hydrilla) cover bottom											
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4
Lakeside Adverse Human Alterations	Very few man-made structures, roads, or other disturbance adjacent to lake (<10%)	Moderate disturbance visible (structures, roads or other), 10%-49% lakeside affected		Many structures, roads or other human disturbance visible (50%-70%) lakeside affected		Highly developed or disturbed (>70% of lakeside affected)											
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4
Upland Buffer Zone	Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer	89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer		50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer		< 29% of shoreline with >18m buffer											
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4
Adverse Watershed Land Use	Score the potential effects from adverse human land uses, based on a continuum of amount and type, with least to most adverse as follows: Native vegetation, Silviculture, Pasture or Citrus, Low Density Residential, Row Crops, Commercial, High Density Residential, Urban, Industrial																
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4
TOTAL SCORE	<i>82</i>																
COMMENTS:																	

ANALYSIS DATE:

6-7-18

ANALYST:

[Signature]

SIGNATURE:

[Signature]

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: 78709 see sticker in upper right MACROPHYTE ID: 11012 LATITUDE: _____
 COUNTY: HILLS WBID: 1493 D LONGITUDE: _____
 LAKE SIZE: small TIME: 1335 619W0071
 SAMPLING AGENCY: FLDEP SW ROC

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS): Forest/Natural <u>15</u> Silviculture _____ Field/Pasture _____ Agricultural _____ Residential <u>85</u> Commercial _____ Industrial _____ Other (Specify) _____						LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI: _____ Land Use Source & Year: _____			
Local Watershed Erosion (select one): ☐ None ☐ Slight ☒ Moderate ☐ Heavy						Artificially Impounded ☐ Yes ☒ No			
Local Watershed NPS Pollution: ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy									
STORMWATER INPUTS <u>10</u>		Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation 20 19 18 17 16		Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place 15 14 13 12 11		Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place 10 9 8 7 6		Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place 5 4 3 2 1	
LAKESIDE ALTERATIONS <u>12</u>		Very few man-made structures, roads, or other disturbance adjacent to lake (<10% lakeside affected) 20 19 18 17 16		Moderate disturbance visible - structures, roads or other (10%-49% lakeside affected) 15 14 13 12 11		Many structures, roads or other human disturbance visible (50%-70% lakeside affected) 10 9 8 7 6		Highly developed or disturbed (>70% of lakeside affected) 5 4 3 2 1	
BUFFER ZONE <u>15</u>		Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer 20 19 18 17 16		89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer 15 14 13 12 11		50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer 10 9 8 7 6		< 29% of shoreline with >18m buffer 5 4 3 2 1	

WATER / SUBSTRATE / BIOLOGICAL: SAMPLES AND OBSERVATIONS

Water: Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☒ Yes ☒ pH<2 ☐ No Color Sample Taken? ☒ Yes ☐ No Lot # _____ Exp. Date: _____ Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☐ Low ☒ Normal ☐ High						Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____					
Meter Readings: Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat. (%) Cond. (UMHO/CM) Salinity (PPT) Top: <u>0.3</u> <u>30.8</u> <u>7.76</u> <u>8.3B</u> <u>112</u> <u>188</u> _____ Mid-Depth: _____ Bottom: <u>3.4</u> <u>28.2</u> <u>6.8</u> <u>5.50</u> <u>65</u> <u>188</u> _____						Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____					
Meter ID: _____						Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☐ Clear ☒ Tannic ☐ Green					
Sediment Type: (may check more than one) ☐ Sandy ☒ Organic fibrous (peaty, CPOM) ☐ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____						SECCHI (M) <u>1.7</u> Total Station Depth (M) <u>3.9</u> VOB ☐					
Sediment Odors: ☐ Normal ☐ Other (Specify): _____ ☐ Anaerobic											
Biological Communities: LVI Conducted? ☒ Yes ☐ No Phytoplankton Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot #: _____ Exp Date: _____ Algal Bloom/Algal ID Sample Taken? Yes ☐ No ☒ Active Vegetation Mgmt? ☒ Yes ☐ No ☐ Don't Know						Abundance: Absent Rare Common Abundant Periphyton ☐ ☐ ☒ ☐ Nuisance Plants ☐ ☐ ☐ ☒ Submersed Plants ☐ ☐ ☒ ☐ Exotic Apple Snails ☒ ☐ ☐ ☐					
Additional Notes: <u>PINK EGGS</u>											
Weather Conditions: <u>PINK EGGS</u>						SAMPLING TEAM: <u>J. ASHTON, B. ASHWATER, S. MEYER</u> SIGNATURE: <u>[Signature]</u> DATE: <u>6-7-18</u>					

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>WILLIAMS LAKE</u>		County: <u>HILLS</u>		Date: <u>6-7-18</u>							
Analyst: <u>J. Ashton, B. Ascuter S. Meyer</u>		Signature: <u>[Signature]</u>		STORET: <u>615WCOY</u>							
Except where noted as "sp." species level identification required. *Genera that may require lab verification* Plants in bold= FLEPPC invasive exotic.				Lake units sampled (circle one group): 1, 4, 7, 10 <u>(3, 6, 9, 12)</u> 3, 6, 9, 12							
It is important to note dominant or co-dominant taxa (by areal extent) for each unit. Use "D" to denote dominant taxon, or "C" for the 2 co-dominant taxa.											
SPECIES	2	5	8	11	Collected? (✓)	SPECIES	2	5	8	11	Collected? (✓)
Acer rubrum	X					Habenaria repens	X				
Alternanthera philoxeroides	X	X				Hydrilla verticillata	X				
Andropogon sp.						Hydrocotyle sp.	X	X	X		
Azolla filiculoides (A. caroliniana)						Hrdolea quadrivalis					
Baccharis sp.						Hygrophila polysperma					
Bacopa caroliniana	X	X	X	X		*Hypericum fasciculatum					
Bacopa monnieri						*Hypericum hypericoides					
Bidens laevis						*Hypericum myrtifolium					
Bidens mitis						Ilex cassine					
Blechnum serrulatum						Ipomoea aquatica					
Boehmeria cylindrica						Ipomoea sagittata					
Brasenia schreberi						Iris pseudacorus					
Cabomba caroliniana						Itea virginica					
Casuarina equisetifolia						Juncus effusus					
Centella asiatica						*Juncus marginatus					
Cephalanthus occidentalis						*Juncus megacephalus					
Ceratophyllum demersum						Juncus repens					
Chara sp.	X	X	X			*Juncus scirpoides					
Cladium jamaicense						Lachnanthes caroliniana					
Cliftonia monophylla						Leersia hexandra					
Colocasia esculenta						Landoltia punctata (Spirodela punctata)					
*Commelina						Lemna sp.					
Crinum americanum						Leucothoe racemosa (Eubotrys racemosa)					
*Cyperus alternifolius (C. involucratus)						Limnobia spongia					
Cyperus articulatus						Limnophila sessiliflora					
Cyperus haspan						Liquidamber styraciflua					
*Cyperus lecontei						*Ludwigia arcuata					
*Cyperus polystachyos						*Ludwigia leptocarpa					
*Cyperus odoratus	X					*Ludwigia linearis					
*Cyperus surinamensis						*Ludwigia octovalvis	X	X			
Cyrtilla racemiflora						*Ludwigia peruviana	X	X			
Decodon verticillatus						*Ludwigia repens					
Diodia virginiana						*Ludwigia					
*Echinochloa crus-galli						Luziola fluitans (Hydrochloa carolinensis)					
*Echinochloa muricatum						Lycopus virginicus					
Echinochloa walteri						Lyonia lucida					
Eclipta prostrata (E. alba)						Magnolia virginiana					
Egeria densa						Mayaca fluviatilis					
Eichhornia crassipes	X	X				Melaleuca quinquenervia					
*Eleocharis baldwinii	X			X		Micranthemum glomeratum					
*Eleocharis						Micranthemum umbrosum					
Eleocharis cellulosa		X		X		Mikania scandens	X		X		
Eleocharis equisetoides						Mimosa pigra					
Eleocharis interstincta						Myrica cerifera	X				
*Eriocaulon compressum						<u>Tampa Bay - Cinnamomum camphora</u>			X		
*Eriocaulon decangulare											
Eupatorium capillifolium	X										
*Fuirena											
Fuirena scirpoidea											
Gordonia lasianthus											

[illegible]

Williams Lake
1493D



82.60313
28.10079

82.6023
28.1008

82.6015
28.1003

82.60349
28.09993

82.601
28.099

82.60269
28.09911

82.60369
28.09924

82.60182
28.09895

82.60184
28.09822

82.60415
28.09842

82.60352
28.09787

82.60267
28.09764

82.60194
28.09746

0 0.025 0.05 0.1 Miles

Florida Department of Environmental Protection

Central Laboratory Submittal Form

LVI Lakes

last revised Jan 25, 2018

Customer: SW-DIST

Requester: Benjamin Paswater

Field Report Prepared By: Judy Ashton

Project ID: SMP

Collected By: J. Ashton, B. Paswater, S. MillerSampling Agency: FDLP

Location		☐ Comp ☒ Grab	Collection (comp begin or grab) Date <u>6-7-18</u> Time <u>1335</u>	☒ Eastern ☐ Central	Composite end Date _____ Time _____	Bottle Group(s) (See pg 2)
Field ID/WIN	G1SW0071	Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen <u>8.38</u>	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L)
Field		Temp (C) <u>30.8</u>	pH <u>7.76</u>	Sample Depth <u>0.3</u>	☐ ft ☒ m	Sp. Conductance (umho/cm) <u>188</u>
WIN	Site Name: Williams Lake	Salinity (ppt) ☐ dd ☐ dms		Comments		
Latitude	☐ dms					
Location		☐ Comp ☒ Grab	Collection (comp begin or grab) Date <u>6-7-18</u> Time <u>1110</u>	☒ Eastern ☐ Central	Composite end Date _____ Time _____	Bottle Group(s)
Field ID	G1SW0078	Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen <u>9.08</u>	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L)
Field ID		Temp (C) <u>30.1</u>	pH <u>7.8</u>	Sample Depth <u>0.3</u>	☐ ft ☒ m	Sp. Conductance (umho/cm) <u>163</u>
WIN/ST	Site Name: James Lake	Salinity (ppt) ☐ dd ☐ dms		Comments		
Latitude	☐ dms					
Location		☐ Comp ☐ Grab	Collection (comp begin or grab) Date _____ Time _____	☐ Eastern ☐ Central	Composite end Date _____ Time _____	Bottle Group(s)
Field ID		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	
WIN/STORET #		Temp (C) ☐ dd ☐ dms	pH ☐ dd ☐ dms	Sample Depth ☐ ft ☐ m	Sp. Conductance (umho/cm)	
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt) ☐ dd ☐ dms		
Location		☐ Comp ☐ Grab	Collection (comp begin or grab) Date _____ Time _____	☐ Eastern ☐ Central	Composite end Date _____ Time _____	Bottle Group(s)
Field ID		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	
WIN/STORET #		Temp (C) ☐ dd ☐ dms	pH ☐ dd ☐ dms	Sample Depth ☐ ft ☐ m	Sp. Conductance (umho/cm)	
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt) ☐ dd ☐ dms		

Relinquished By: <u>J. Ashton</u>	Date/Time <u>6-7-18 1700</u>	Shipping Method <u>per Ex</u>	Number of Coolers Shipped: <u>1</u>	Received By:	Date/Time
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Ref:
Dep:Date: 14 May 18
Wgt: 15.00 LBS
DV:SHIPPING: 0.00
SPECIAL: 0.00
HANDLING: 0.00
TOTAL: 0.00

Group: A	Bottle Type: P-1L	# of Bottles: 2	Preservative: ICE	Enter Number of Bottles Sent to Lab	2
ALKALINITY					
TURBIDITY					
W-CL-IC					
W-COLOR					
W-F					
W-SO4-IC					
W-TDS					
W-TSS					

Group: A	Bottle Type: BP-1L	# of Bottles: 2	Preservative: ICE	Enter Number of Bottles Sent to Lab	2
CHLSUITE-W					

Group: A	Bottle Type: P-250ML-WO-THI	# of Bottles: 2	Preservative: ICE	Enter Number of Bottles Sent to Lab	2
ECOLI-18QT					

Group: A	Bottle Type: P-500ML	# of Bottles: 2	Preservative: ICE And H2SO4	Enter Number of Bottles Sent to Lab	2
W-NH3					
W-NO2NO3					
W-S-A-TP					
W-TKN					
W-TOC					

Group: A	Bottle Type: P-125ML	# of Bottles: 2	Preservative: FILTER-ICE	Enter Number of Bottles Sent to Lab	2
W-PO4-F					