

LVI

Site Name Hongglass Lake Sample Date 7/14/20
WBID 3168X2 WIN ID 64CE078 RQ 2020-07-20-64

	Initial/Date	QC Initial/Date
Water chemistry data to LIMS	Kum 7/20/20	TR 8/11/20
Create SBIO station visit	Kum 7/23/20	n/a
Vascular Entry (add LIMS ID)	Kum 7/23/20	TR 8/11/20
Lake Observation Sheet Entry	Kum 7/23/20	TR 8/11/20
Authorize SBIO data	TR 8/11/20	n/a
Scan all sheets to 21FLCEN folder	KWM 8/14/20	n/a
LIMS/WIN migration	KWM 8/17/20	n/a
File in cabinet		n/a

Comments/notes:

Phys/chem is electronic copy in 21FLCEN folder, add
it to paper copy when scanned



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2020

Meter Passed End

of Day CCV

Yes No

WIN Station Name: Hourglass Lake @ Center

Date: 7/14/20

(mm/dd/yyyy)

WIN/ Field ID: G4CE0178

WBID: 3168X2

Latitude: 28.522527

(Decimal Degrees)

County: Orange

ORG ID: 21FLCEN

Longitude: -81.356792

(Decimal Degrees)

Receiving Body of Water:

RQ-2020-07-20-66

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Leif Boman	/	/	/	/	/
Katie March	/	/	/	/	/

Sampling Equipment	
☒ Sample Container	☐ Van Dorn
☒ Syringe	☐ Pole
☐ Dipper	☐ Other
Depth Measured with <u>Secchi</u>	
Equipment ID <u>Knotherd</u>	
Collection Method	
☐ Wading	☒ Canoe/Kayak
☐ From Shore	☒ Electric Motor
☐ Other	☐ Gasoline Motor

Water Level: Dry/ Pooled/ Low / <u>Normal</u> / High / Flooded		Meter ID# <u>Shrimp Trap</u>	
Photos: Yes / <u>No</u>	Flow: No Flow / Flowing / <u>NA</u>	Tide: Rising/ Falling/ Slack/ <u>NA</u>	Tide Times: High Low
Biological Samples Collected: None HA SCI RPS Algae ID LVS <u>LVI</u> Other:			
SBIO ID Numbers:	SBIO-ID: <u>41205</u>	HA-ID:	RPS-ID: <u>n/a</u>
Macrophyte-ID: <u>11489</u>		LIMS#: <u>2183150</u>	
Notes: <u>field blank is different RQ (LB)</u>			

Duplicate Sample

Time Zone: EST CEN Time:	Field ID: (WIN ID_DUP)
WIN DMT Activity ID:	

Blank

Time Zone: EST CEN Time:	Field ID: (Blank Type_DDDMMYYY)
DI Source:	Location:
☐ Field Blank ☐ Equipment Blank ☐ Field Cleaned Equipment Blank	Equipment ID:

LIMS EVENT ID: CEN-DIST-2020-07-15-01 WIN Import ID: 21510

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 7/20/20 QC Station ID, Field Parameters In LIMS DMT: TR 8/11/20

(Initials/Date)

(Initials/Date)

Scan/Save Field Sheets KWM 8/14/20 Migrate Data to WIN: KWM 8/17/20 Verify Data In WIN: (Initials/Date)

(Initials/Date)

(Initials/Date)

(Initials/Date)



07-20-66

RQ-2020-

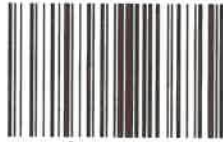
Customer: CEN-DIST

Project ID: SMP

Collected By: Liif BomanField Report Prepared By: Kate March

Sampling Agency: FDEP CEN-ROC

WIN ID / Field ID →

Hourglass Lake @
Center

G4CE0178

Comments:

Matrix: Fresh Marine

(Check one)

☒ GRAB☐ COMPOSITE

Date	Time	DO (mg/L)	DO (%SAT)	Temp. (C°)	pH	Sample Depth (m)	Secchi Disk (m)	Total Depth (m)	Sp COND (µmhos/cm)	Salinity (PPT)
7/14/20	1034	10.47	142.0	31.5	7.76	0.298	0.9	3.8	181.3	0.08
EST / CST										

☐ VOB (S)

Central Lab please use top row for login purposes

1040	0.18	2.4	28.9	6.38	3.309				194.4	0.09
EST / CST										

Parameter Suite	Parameter Methods	Preservation	pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H2SO4*	☒ <2	1	
	Lot # H2S04 LOT# SA9354050 EXP: 12/20/2020	Exp:			
Metals (P-500ML)	☐ W-ICPMS	☐ Ice ☐ HNO3*	☐ <2		
	Lot # Exp:				
Filtered Nutrients (P125ML)	☒ W-P04-F ☒ Field Filtered 0.45 µm Filter	☐ Ice		1	
	Filter Lot # 16930280				
	Syringe Lot # 9149785				
Chlorophyll (BP-1L)	☒ CHLSUITE-W	☐ Ice		1	
Physical/Aggregate (Fresh) (P-1L)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CHC / W-COLOR / W-S04-IC / W-TDS	☐ Ice		1	
Physical/Aggregate (Marine) (P-1L)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates (PJ-2L)	☐ MI-FW-QLDC	☐ Formalin			
Periphyton (PT-50ML)	☐ ALGAE-ID	☐ Ice			
Microbiology (Contract Lab Bottle)	☐ E Coli ☐ F Coli ☐ Enterococci	☐ Ice			
Molecular (QPCR-P-500ML)	☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD ☐ See Notes	☐ Ice			
Tracers (BG-500ML)	☐ W-E8321-DI ☐ W-E8321-MS	☐ Ice			
Pesticides (BG-500ML) (BG-1L)	☐ W-E8321-DI ☐ WE8321-MS ☐ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-PCL-SQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution)	☐ Ice			

Name:

Kate March
Liif Boman

Signature:

KMarch

Date:

7/14/20

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution



RQ-2020- 07-20-66

Customer: CEN-DIST

Project ID: SMP

Collected By: Katie March, Leif Boman

Field Report Prepared By: Leif Boman

Sampling Agency: 21FLCEN

BLANK

Field ID: FB_07142020

Comments:

Matrix: Field Blank / Equipment Blank / Field Cleaned Equip Blank

(Check one) ☐ COMPOSITE ☐ GRAB

Date

Time

DI Source:

EST / CST

Parameter Suite	Parameter Methods	Preservation	pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)	☐ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☐ Ice ☐ H2SO4*	☐ <2		
	Lot # _____ Exp: _____				
Metals (P-500ML)	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3*	☐ <2		
	Lot # _____ Exp: _____				
Filtered Nutrients (P125ML)	☐ W-PO4-F ☐ Field Filtered 0.45 µm Filter	☐ Ice			
	Filter Lot # _____				
	Syringe Lot # _____				
Physical/Aggregate (Fresh) (P-1L)	☐ Alkalinity / W-F / W-TSS / TURBIDITY / W-CHC / W-COLOR / W-SO4-IC / W-TDS	☐ Ice			
Physical/Aggregate (Marine) (P-1L)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Tracers (BG-500ML)	☐ W-E8321-DI ☐ W-E8321-MS	☐ Ice			
Pesticides (BG-500ML) (BG-1L)	☐ W-E8321-DI ☐ W-E8321-MS ☐ W-PSNP-TQ ☐ W-CT-CL-R	☐ Ice			
	☐ W-PCL-SQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution)				
Name: Katie March Leif Boman		Signature: K March		Date: 7/14/20	

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

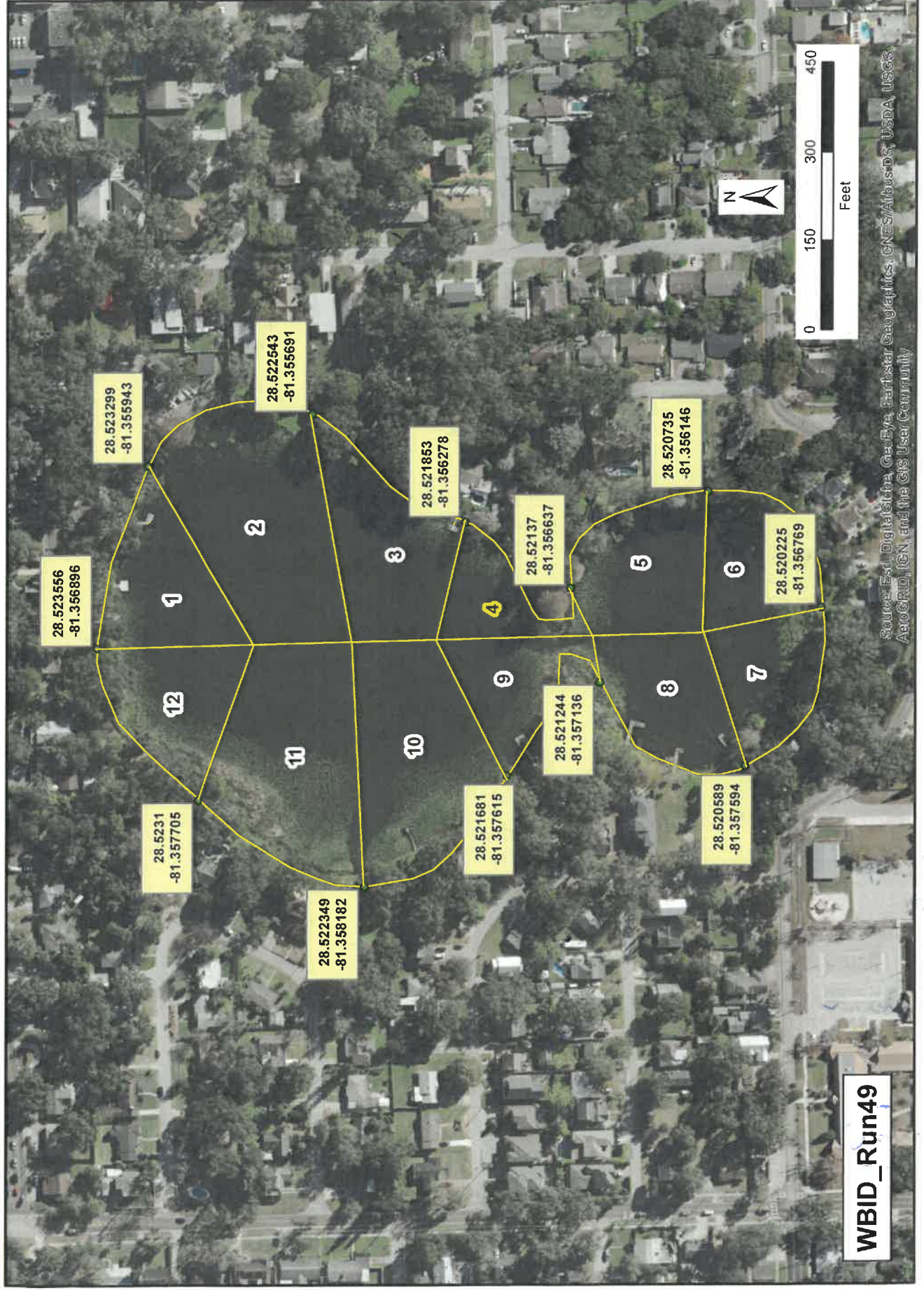
DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Hounglass</u>		County: <u>Orange</u>		Date: <u>7/14/20</u>					
Analyst: <u>Katie March, L&F Bonum</u>		Signature: <u>KMarch</u>		STORET: <u>64CE0178</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>2, 5, 8, 11</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				Collected? (✓)	SPECIES				Collected? (✓)
Acer rubrum					Fraxinus				
Alternanthera philoxeroides	✓		✓	✓	Fuirena scirpoidea				
Amaranthus australis					Gordonia lasianthus				
Andropogon sp.					Habenaria repens				
Azolla filiculoides (A. caroliniana)					Hibiscus coccineus				
Baccharis sp.					Hibiscus grandiflorus				
Bacopa caroliniana					Hydrilla verticillata	✓	✓	✓	✓
Bacopa monnieri					Hydrocotyle sp.	✓	✓	✓	✓
Bidens alba				✓	Hygrophila polysperma				
Bidens laevis					Hymenocallis sp.				
Bidens mitis					*Hypericum fasciculatum				
Boehmeria cylindrica					*Hypericum hypericoides				
Brasenia schreberi					*Hypericum myrtifolium				
Cabomba caroliniana					Ilex cassine				
Canna sp.					Ipomoea aquatica				
Centella asiatica					Ipomoea sagittata				
Cephalanthus occidentalis					Itea virginica				
Ceratophyllum demersum					Juncus effusus				
Chara sp.					*Juncus marginatus				
Cicuta maculata					*Juncus megacephalus				
Cinnamomum camphora		✓		✓	Juncus repens				
Cladium jamaicense					*Juncus scirpoides				
Colocasia esculenta	✓	✓	✓	✓	Lachnanthes caroliniana				
*Commelina					Leersia hexandra				
Crinum americanum					Landoltia punctata (Spirodela punctata)				
Cyperus articulatus	✓	✓	✓	✓	Lemna sp.	✓	✓	✓	✓
Cyperus blepharoleptos (Scirpus cubensis)					Leucothoe racemosa (Eubotrys racemosa)				
Cyperus haspan					Limnium spongia				
*Cyperus involucratus	✓				Limnophila sessiliflora				
*Cyperus lecontei					Liquidambar styraciflua				
*Cyperus odoratus	✓		✓		*Ludwigia arcuata				
*Cyperus polystachyos					*Ludwigia grandiflora				
*Cyperus surinamensis					*Ludwigia hexapetala				
Cyrilla racemiflora					*Ludwigia leptocarpa			✓	
Decodon verticillatus					Ludwigia (native)				
Diodia virginiana				✓	*Ludwigia octovalvis			✓	
*Echinochloa crus-galli				✓	*Ludwigia peruviana	✓		✓	✓
*Echinochloa muricata					*Ludwigia repens			✓	
Echinochloa walteri					Ludwigia suffruticosa				
Eclipta prostrata					Luziola fluitans (Hydrochloa carolinensis)				
Eichhornia crassipes					Magnolia virginiana				
*Eleocharis					Mayaca fluviatilis				
Eleocharis cellulosa					Melaleuca quinquenervia				
*Eleocharis elongata				✓	Micranthemum glomeratum				
Eleocharis equisetoides					Micranthemum umbrosum				
Eleocharis interstincta	✓	✓	✓		Mikania scandens				
Eleocharis vivipara (submersed)				✓	Mimosa pigra				
*Eriocaulon compressum					Myrica cerifera				
*Eriocaulon decangulare									
Eupatorium capillifolium									

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: <u>Hemglass</u>					Date: <u>7/14/20</u>				
SPECIES				Collected? (✓)	SPECIES				Collected? (✓)
Myriophyllum aquaticum					Salix caroliniana			✓	
*Myriophyllum heterophyllum					Salvinia minima				
*Myriophyllum laxum					Sambucus canadensis				
*Myriophyllum pinnatum					Sapium sebiferum			✓	
Myriophyllum spicatum					Saururus cernuus				
*Najas filifolia					Schinus terebinthifolius				
*Najas guadalupensis					*Schoenoplectus californicus				
*Najas minor					*Schoenoplectus pungens				
Nelumbo lutea					*Schoenoplectus tabernaemontani				
Nitella spp.									
Nuphar sp.					Scirpus cyperinus			✓	
Nymphaea mexicana					*Sesbania <u>herbacea</u>			✓	
Nymphaea odorata					Solidago sp.				
Nymphoides aquatica					Sparganium americanum				
Nyssa sylvatica var. biflora					Spartina bakeri				
Orontium aquaticum					Spirodela polyrhiza				
Osmunda cinnamomea					Taxodium sp.			✓	✓
Osmunda regalis					Thalia geniculata				
Panicum hemitomon					Thelypteris interrupta				
Panicum repens	✓	✓	✓	✓	Thelypteris palustris				
Paspalidium geminatum					Triadenum virginicum			✓	✓
*Paspalum repens					Typha sp.			✓	✓
Paspalum urvillei					Urochloa mutica (Brachiaria mutica)				
Peltandra sp.					*Utricularia gibba (U. biflora)	✓		✓	
Persea sp.					*Utricularia foliosa				
*Persicaria glabra (densiflora)	✓	✓	✓	✓	*Utricularia inflata				
Persicaria hirsuta					*Utricularia purpurea				
*Persicaria hydropiperoides					*Utricularia radiata				
*Persicaria punctata					*Utricularia resupinata				
*Persicaria					Vallisneria americana			✓	✓
Pennisetum purpureum					Vitis sp.				
Phragmites australis					*Websteria confervoides				
Pinus elliotii					Wedelia trilobata (Sphagneticola trilobata)				
Pistia stratiotes					Wolffiella spp.				
Pluchea sp.				✓	Woodwardia virginica				
Pontederia cordata				✓	Xyris sp.				
*Potamogeton diversifolius					Zizania aquatica				
*Potamogeton illinoensis					Zizaniopsis milacea				
*Potamogeton pusillus									
*Potamogeton pectinatus (Stuckenia pectinatus)									
Proserpinaca pectinata					Telmatoblechnum serrulatum				
*Rhexia									
*Rhynchospora corniculata					<u>Vigna luteola</u>			✓	✓
*Rhynchospora inundata					Euphorbia corollata			✓	✓
Rhynchospora nitens					<u>Cyperus papyrus</u>			✓	✓
Ricciocarpus natans									
Sabal palmetto									
Sacciolepis striata									
*Sagittaria filiformis									
*Sagittaria graminea									
*Sagittaria isoetiformis									
Sagittaria lancifolia	✓			✓					
Sagittaria latifolia									

LVI Map for Hourglass Lake, WBID 3168X2



WBID_Run49

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____	MACROPHYTE ID: _____	LATITUDE: _____
COUNTY: Orange	STORET #: G4CE0178	LONGITUDE: _____
DATE: 7/14/20	TIME: _____	SAMPLING AGENCY: _____
SITE NAME: Hourglass Lake		WBID: 3168X2
FIELD ID/NAME: _____	LAKE SIZE: _____	RQ: 2020-07-20-66

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) : Forest/Natural Silviculture Field/Pasture Agricultural Residential 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 5		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		3		2		1	
LAKESIDE ALTERATIONS 4		Very few man-made structures, roads, or other disturbance adjacent to lake (<10% lakeside affected)		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		3		2		1	
BUFFER ZONE 5		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		3		2		1	

WATER / SUBSTRATE / BIOLOGICAL: SAMPLES AND OBSERVATIONS

Water: Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☒ Yes ☐ No 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 _____						
							Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____						
Meter Readings: Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat. (%) Cond. (UMHO/CM) Salinity (PPT) Top: 0.298 31.5 7.76 10.47 142.0 181.3 0.08 Mid-Depth: _____ Bottom: 3.309 28.9 6.38 0.18 2.4 194.4 0.09							Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☐ Clear ☒ Tannic ☐ Green						
Meter ID: Shrimp Trap							SECCHI (M) 0.9 VOB ☐ Total Station Depth (M) 3.8						
Sediment Type: (may check more than one) ☐ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____							Sample Taken? ☐ Yes ☒ No Sediment Odors: ☒ Normal ☐ Anaerobic ☐ Other (Specify): _____						
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:						
Weather Conditions : Hot, sunny													
SAMPLING TEAM: Leif Boman, Katie March							SIGNATURE:						
							DATE: 7/14/20						