

LVI

Site Name Lake Van Sample Date 7/22/19
WBID 1503 WIN ID G46E0099 RQ 2019-07-22-33

	Initial/Date	QC Initial/Date
Water chemistry data to LIMS	KWM AUG 02 2019	NA 8/23/2019
Create SBIO station visit	KWM AUG 06 2019	n/a
Vascular Entry (add LIMS ID)	KWM AUG 06 2019	NA 8/23/2019
Lake Observation Sheet Entry	KWM AUG 06 2019	NA 8/23/2019
Authorize SBIO data	NA 8/23/2019	n/a
Scan all sheets to 21FLCEN folder		n/a
LIMS/WIN migration		n/a
File in cabinet		n/a

Comments/notes:





FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?
Yes / No

WIN Station Name: Lake Van @ SW Corner of W Lobe

Date: 07/22/2019

WIN/ Field ID: G4CE0099

WBID: 1503

Latitude: 28.1063861

(mm/dd/yyyy)

County: Polk

ORG ID: 21FLCEN

Longitude: -81.7785295

(Decimal Degrees)

Receiving Body of Water: _____

RQ-2019- 07-22-33

(Decimal Degrees)

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Leif Borman									
Natake Ayala									
Kathryn March									

Sampling Equipment									
☒ Sample Container	☐ Van Dorn	☐ Pole							
☐ Carboy	☒ Syringe								
☐ Dipper	☐ Other								
Depth Measured with <u>Secchi Disk Line / Meter</u>									
Equipment ID <u>Leadfoot, Knothead, Crusty/Bucket, Mucky/Trap</u>									

Collection Method									
☐ Wading	☐ Canoe/Kayak								
☐ From Shore	☐ Electric Motor								
☐ Other	☒ Gasoline Motor								

Water Level: <u>Dry/ Pooled/ Low</u> / Normal / High / Flooded					Meter ID# <u>Betty / 67</u>					Matrix: <u>Fresh / Marine / DI</u>	
Photos: <u>Yes / No</u>					Flow: <u>No Flow / Intestinal / Flowing / NA</u>					Tide: <u>Rising/ Falling/ Slack / NA</u>	
					Tide Times: <u>High</u> / Low						

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (µmhos/cm)	Temp. (C°)
(EST)	1225	2.6	0.3	0.6	8.11	109.9	8.38	0.09	204	31.24
CEN			21		5.75	74.4	6.88	0.09	204	30.05

Biological Samples Collected: <u>None</u> HA SCI RPS Algae ID LVS LVI Other:										
SBIO ID Numbers: SBIO-ID: <u>80060</u> HA-ID: RPS-ID: Macrophyte-ID: <u>11443</u> LIMS#: <u>2105119</u>										

Parameter Suite	Parameter Methods	Preservation	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 ☐ HNO3			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice	13615055		
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CL-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☐ ME-FW-QLCD	☐ Formalin			
Periphyton	☐ ALGAE-ID	☐ Ice			
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci	☐ Ice			
Molecular	☐ PCR-FILTER ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-HF183 ☐ PCR-DG3 ☐ PCR-GFD	☐ Ice			
Tracers	☐ W-E8321-DI ☐ W-E8321-MS	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-E8321-DI ☐ W-PCL-SQ-R ☐ W-E8321-MS ☐ W-CARB-AA	☐ Ice ☐ Other			
Phytoplankton	☐ DTY-QN-C ☐ PKD-QN-C	☐ Ice			

H2SO4
LOT# SA7163030
EXP: 10/30/2019
Place preservative sticker(s) here
(If Available)

Notes:

Launch at Sunrise Cove, 28.107207, -81.779620

WIN ID / Field ID →

Lake Van @ SW Corner
of W Lobe



G4CE0099

Signature: K March

Date: 7/22/19

LIMS EVENT ID: CENT-DIST-2019-07-23-01

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM AUG 02 2019

QC Station ID, Field Parameters In LIMS DMT: NA 8/23/2019

Scan/Save Field Sheets

Migrate Data to WIN:

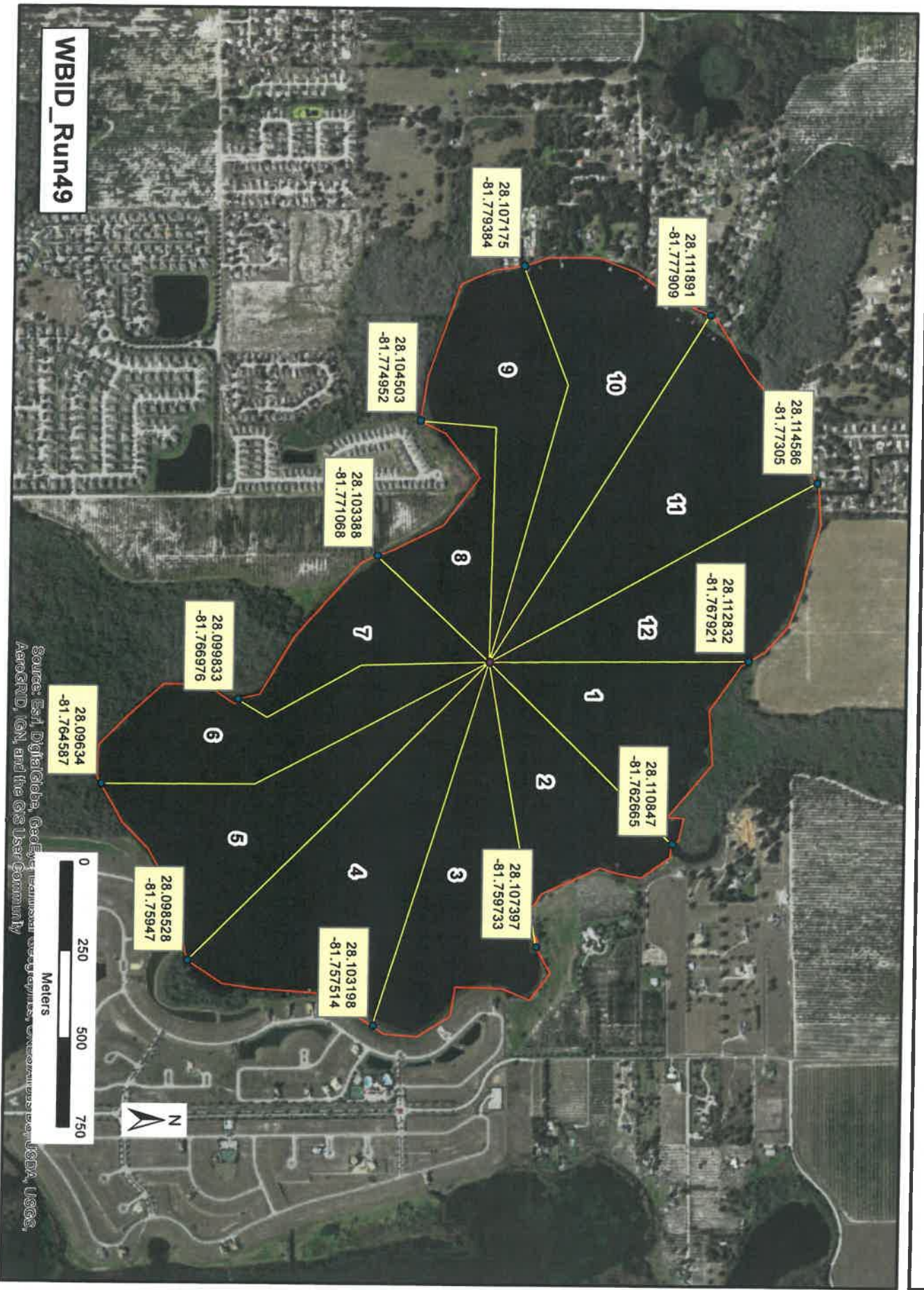
Verify Data In WIN:

(Initials/Date)

(Initials/Date)

(Initials/Date)

LV1 Map for Lake Van, WBID 1503



DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Van</u>		County: <u>Polk</u>		Date: <u>7/22/2019</u>							
Analyst: <u>Natalie Ayala Kathryn March</u>		Signature: <u>Natalie Ayala</u>		STORET: <u>GLCE0099</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	2	5	8	11	Collected? (✓)	SPECIES	2	5	8	11	Collected? (✓)
Acer rubrum		/		/		Fraxinus					
Alternanthera philoxeroides	/					Fuirena scirpoides					
Amaranthus australis						Gordonia lasianthus					
Andropogon sp.						Habenaria repens					
Azolla filiculoides (A. caroliniana)						Hibiscus coccineus					
Baccharis sp.		/				Hibiscus grandiflora					
Bacopa caroliniana						Hydrilla verticillata					
Bacopa monnieri						Hydrocotyle sp.					
Bidens alba						Hygrophila polysperma					
Bidens laevis						Hymenocallis sp.					
Bidens mitis						*Hypericum fasciculatum					
Blechnum serrulatum		/	/	/		*Hypericum hypericoides					
Boehmeria cylindrica				/		*Hypericum myrtifolium					
Brasenia schreberi						Ilex cassine		/	/	/	
Cabomba caroliniana						Ipomoea aquatica					
Canna						Ipomoea sagittata					
Centella asiatica						Itea virginica					
Cephalanthus occidentalis		/	/	/		Juncus effusus					
Ceratophyllum demersum						*Juncus marginatus					
Chara sp.						*Juncus megacephalus					
Cicuta maculata						Juncus repens					
Cinnamomum camphora						*Juncus scirpoides					
Cladium jamaicense						Lachnanthes caroliniana					
Colocasia esculenta	/	/	/	/		Leersia hexandra					
*Commelina <u> diffusa </u> <u> bive </u>				/		Landoltia punctata (Spirodela punctata)					
Crinum americanum						Lemna sp.					
* Cyperus alternifolius (C. involucratus)						Leucothoe racemosa (Eubotrys racemosa)					
Cyperus articulatus						Limnium spongia					
Cyperus haspan						Limnophila sessiliflora					
*Cyperus lecontei						Liquidambar styraciflua					
*Cyperus polystachyos	/					*Ludwigia arcuata					
*Cyperus odoratus	/	/	/	/		*Ludwigia grandiflora					
*Cyperus surinamensis						*Ludwigia hexapetala					
Cyrilla racemiflora						*Ludwigia leptocarpa					
Decodon verticillatus						Ludwigia (native)					
Diodia virginiana						*Ludwigia octovalvis	/	/	/	/	
*Echinochloa crus-galli						*Ludwigia peruviana		/	/	/	
*Echinochloa muricatum						*Ludwigia repens					
Echinochloa walteri <u> hairy </u>				/		Ludwigia suffruticosa					
Eclipta prostrata (E. alba)	/					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 submersed viviparous						Mimosa pigra					
*Eriocaulon compressum						Myrica cerifera		/	/	/	
*Eriocaulon decangulare						Ludwigia linearis?	/	/	/	/	
Eupatorium capillifolium				/							11/2

Site:						Date:					
SPECIES	2	5	8	11	Collected? (✓)	SPECIES	2	5	8	11	Collected? (✓)
Myriophyllum aquaticum						<i>Salix caroliniana</i>	✓	✓	✓	✓	
* <i>Myriophyllum heterophyllum</i>						Salvinia minima					
* <i>Myriophyllum laxum</i>						<i>Sambucus canadensis</i>					
* <i>Myriophyllum pinnatum</i>						Sapium sebiferum					
Myriophyllum spicatum						<i>Saururus cernuus</i>					
* <i>Najas filifolia</i>						Schinus terebinthifolius					
* <i>Najas guadalupensis</i>						* <i>Schoenoplectus californicus</i>	✓		✓		✓
* <i>Najas minor</i>						* <i>Schoenoplectus pungens</i>					
<i>Nelumbo lutea</i>						* <i>Schoenoplectus tabernaemontani</i> (<i>Scirpus validus</i>)					
<i>Nitella</i> spp.						<i>Scirpus cubensis</i> (<i>Oxycaryon cubense</i>)				✓	
<i>Nuphar</i> sp.	✓			✓		<i>Scirpus cyperinus</i>					
<i>Nymphaea mexicana</i>						* <i>Sesbania</i>		✓		✓	
<i>Nymphaea odorata</i>						<i>Solidago</i> sp.					
<i>Nymphoides aquatica</i>						<i>Sparganium americanum</i>					
<i>Nyssa sylvatica</i> var. <i>biflora</i>	✓	✓				<i>Spartina bakeri</i>					
<i>Orontium aquaticum</i>						<i>Spirodela polyrhiza</i>					
<i>Osmunda cinnamomea</i>						<i>Taxodium</i> sp.	✓				
<i>Osmunda regalis</i>						<i>Thalia geniculata</i>					
<i>Panicum hemitomon</i>	✓	✓	✓	✓		<i>Thelypteris interrupta</i>					
Panicum repens	✓	✓	✓	✓		<i>Thelypteris palustris</i>					
<i>Paspalidium geminatum</i>						<i>Triadenum virginicum</i>					
* <i>Paspalum repens</i>						<i>Typha</i> sp.	✓	✓	✓	✓	
<i>Paspalum urvillei</i>						Urochloa mutica (<i>Brachiaria mutica</i>)					
<i>Peltandra</i> sp.						* <i>Utricularia gibba</i> (<i>U. biflora</i>)					
<i>Persea</i> sp.						* <i>Utricularia foliosa</i>					
Pennisetum purpureum						* <i>Utricularia inflata</i>					
<i>Phragmites australis</i>						* <i>Utricularia purpurea</i>					
<i>Pinus elliotii</i>						* <i>Utricularia radiata</i>					
Pistia stratioides						* <i>Utricularia resupinata</i>					
<i>Pluchea</i> sp.						<i>Vallisneria americana</i>					
* <i>Polygonum glabrum</i> (<i>densiflorum</i>)						<i>Vitis</i> sp.		✓	✓		
<i>Polygonum hirsutum</i>						* <i>Websteria confervoides</i>					
* <i>Polygonum hydropiperoides</i>						Wedelia trilobata (<i>Sphagneticola trilobata</i>)					
* <i>Polygonum punctatum</i>						<i>Wolffiella</i> spp.					
* <i>Polygonum</i> <i>sp.</i>				✓	⑪	<i>Woodwardia virginica</i>					
<i>Pontederia cordata</i>	✓	✓		✓		<i>Xyris</i> sp.					
* <i>Potamogeton diversifolius</i>						<i>Zizania aquatica</i>					
* <i>Potamogeton illinoensis</i>						<i>Zizaniopsis milacea</i>					
* <i>Potamogeton pusillus</i>						<i>Thelypteris interrupta</i>		✓	✓	✓	✓
* <i>Potamogeton pectinatus</i> (<i>Stuckenia pectinatus</i>)						<i>Giant Water Fern</i>	✓				
<i>Proserpinaca pectinata</i>						<i>Vigna</i>		✓		✓	
* <i>Rhexia</i>						<i>Saccharum giganteum</i>	✓				
* <i>Rhynchospora corniculata</i>						<i>Arostichum dannefolium</i>					
* <i>Rhynchospora inundata</i>											
<i>Rhynchospora nitens</i>											
<i>Ricciocarpus natans</i>											
<i>Sabal palmetto</i>											
<i>Sacciolepis striata</i>				✓							
* <i>Sagittaria filiformis</i>											
* <i>Sagittaria graminea</i>											
* <i>Sagittaria isoetiformis</i>											
<i>Sagittaria lancifolia</i>	✓			✓							
<i>Sagittaria latifolia</i>											

* NO DOMINANCE: 11,

section 8: *Eichornia* appears to be taking advantage of sprayed/cleared shorelines.

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: _____
COUNTY: Polk STORET #: 64LE0099 LONGITUDE: _____
DATE: 7/22/19 TIME: _____ SAMPLING AGENCY: _____
SITE NAME: Lake Van WBID: 1503
FIELD ID/NAME: _____ LAKE SIZE: _____ RQ: 2019-07-22-35

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category - from GIS) :										LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer)											
Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)														
<u>20</u>			<u>15</u>	<u>65</u>																	
Local Watershed Erosion (select one) : ☐ None ☒ Slight ☐ Moderate ☐ Heavy										Artificially Impounded ☐ Yes ☒ No											
Local Watershed NPS Pollution : ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy										Land Use Source & Year:											
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										
<u>5</u>		20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
LAKESIDE ALTERATIONS		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)										
<u>5</u>		20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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										
<u>5</u>		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: <u>0.3</u> <u>31.24</u> <u>8.38</u> <u>8.11</u> <u>109.9</u> <u>204</u> <u>0.09</u> Mid-Depth: _____ Bottom: <u>2.1</u> <u>30.05</u> <u>6.94</u> <u>5.75</u> <u>76.2</u> <u>204</u> <u>0.09</u> Meter ID: <u>Betty 67</u>										Clarity: ☐ Clear ☐ Opaque ☐ Turbid ☒ Slightly Turbid Color: ☐ Clear ☒ Tannic ☐ Green SECCHI (M) <u>0.6</u> Total Station Depth (M) <u>2.6</u> VOB ☐									
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 :																			

SAMPLING TEAM:

Angela, March

SIGNATURE:

kmarch

DATE:

7/22/19