



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

March 2017

PAGE 1 OF 1

Data Qualified?
Yes / No

Location/STORET Station Name: Lake Nan @ Center

Date: 8/22/17
(mm/dd/yyyy)

STORET # G2CE0091

WBID: 3009H

Latitude: 28.60742

(Decimal Degrees)

County: Orange RQ - 2017-08-21-38

ORG ID: 21FLCEN

Longitude: -81.28057

(Decimal Degrees)

Receiving Body of Water: _____

Field ID: G2CE0091

Sampling Team Members				WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Mike Linger								
Mike Drannan								
Tina McIntyre (Orange Co.)								

Water Level:		Matrix:	
Dry / Pooled / Low / Normal / High / Flooded		Fresh / Marine / DI	

Meter ID#		Photos:		Tide Falling:	
Boop / Non		Yes / No		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	10:54	0.3	7.1	7.1	96	7.2	0.1	1.7	140	31.0
CEN		6.6		1.3	17	6.5	0.1		174	29.1

Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other _____
SBIO ID Numbers: SBIO-ID: 77915 RPS-ID: _____ Macrophyte-ID: 10712 LIMS#: 1923338

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	7093010	4/3/17	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <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-CI-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MI-FW-Q-LDC	☐ 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	☐ Ice			
	☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Other			

Contains
1:1
Sulfuric Acid
SA-7093010
EXP: 04/03/18
Warning!
See SDS

Notes:

Ramp
28.608V
-81.28270

Lake Nan @ Center

Date: 08/22/2017
RQ-2017-08-21-38

G2CE0091
Field ID
STORET
G2CE0091

Signature: _____

Date: 8/22/17

Field Parameters Entered into LIMS: _____

(Initials/Date)

Field Parameters QC in LIMS: _____

(Initials/Date)

Date Migrated to STORET: _____

(Initials/Date)

Field Sheets Scanned/Saved: _____

(Initials/Date)

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: 77915 MACROPHYTE ID: 10712 LATITUDE: 28.60742
 COUNTY: Orange STORET #: G2CE0091 LONGITUDE: -81.28057
 DATE: 8/22/17 TIME: 1054 SAMPLING AGENCY: FDEP - CEROC
 SITE NAME: Lake Nan WBID: 3009H
 FIELD ID/NAME: G2CE0091 LAKE SIZE: 10.9ha RQ: 2017-08-21-38

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: <u>1.84</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: <u>"Run 53" 2017</u>																
STORMWATER INPUTS <u>6</u>		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 <u>3</u>		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 <u>1</u>		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 # <u>7093010</u> Exp. Date: <u>4/3/18</u> 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>31.0</u> <u>7.2</u> <u>7.1</u> <u>96</u> <u>140</u> <u>0.1</u> Mid-Depth: ☐ ☐ ☐ ☐ ☐ ☐ ☐ Bottom: <u>6.6</u> <u>29.1</u> <u>6.5</u> <u>1.3</u> <u>17</u> <u>174</u> <u>0.1</u>							Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☐ Clear ☐ Tannic ☒ Green						
Meter ID: <u>Boop / Non</u>							SECCHI (M) <u>1.7</u> Total Station Depth (M) <u>7.1</u> VOB ☐						
Sediment Type: (may check more than one) ☒ Sandy ☐ Organic fibrous (peaty, CPOM) ☒ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____							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 ☐ ☐ ☒ ☐						
Weather Conditions: <u>Lower 90's, Pt. cloudy</u>							Additional Notes:						
SAMPLING TEAM: <u>Mike Linger, Mike Drannen, Tina McIntyre</u>							SIGNATURE: _____ DATE: <u>9/12/17</u>						

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Nan</u>		County: <u>Orange</u>		Date: <u>8/22/17</u>							
Analyst: <u>Mike Linger/Mike Drennon/Tina McIntyre</u>		Signature: <u>[Signature]</u>		STORET: <u>6266091</u>							
Except where noted as "sp." species level identification required. *Genera that may require lab verification*				Lake units sampled (circle one group):							
Plants in bold = FLEPPC invasive exotic.				1, 4, 7, 10 2, 5, 8, 11							
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.				3, 6, 9, 12							
SPECIES	1	4	7	10	Collected? (✓)	SPECIES	1	4	7	10	Collected? (✓)
Acer rubrum						Fuirena scirpoides					
Alternanthera philoxeroides			/	/		Gordonia lasianthus					
Amaranthus australis						Habenaria repens					
Andropogon sp.						Hibiscus coccineus					
Azolla filiculoides (A. caroliniana)						Hibiscus grandiflora					
Baccharis sp.						Hydrilla verticillata		/	/		
Bacopa caroliniana						Hydrocotyle sp.		/	/	/	
Bacopa monnieri			/	/		Hygrophila polysperma					
Bidens alba						Hymenocallis sp.					
Bidens laevis						*Hypericum fasciculatum					
Bidens mitis						*Hypericum hypericoides					
Blechnum serrulatum						*Hypericum myrtifolium					
Boehmeria cylindrica						Ilex cassine					
Brasenia schreberi						Ipomoea aquatica					
Cabomba caroliniana						Ipomoea sagittata					
Canna						Itea virginica					
Centella asiatica						Juncus effusus					
Cephalanthus occidentalis						*Juncus marginatus					
Ceratophyllum demersum						*Juncus megacephalus					
Chara sp.	/	D		D		Juncus repens					
Cinnamomum camphora						*Juncus scirpoides					
Cladium jamaicense						Lachnanthes caroliniana					
Colocasia esculenta	/	/				Leersia hexandra					
*Commelina						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 hex-grand-uruguayensis complex**					
*Cyperus surinamensis						*Ludwigia leptocarpa	/				
Cyrilla racemiflora						Ludwigia (native)					
Decodon verticillatus						*Ludwigia octovalvis					
Diodia virginiana			/			*Ludwigia peruviana	C	/	/		
*Echinochloa crus-galli						*Ludwigia repens					
*Echinochloa muricatum						Ludwigia suffruticosa					
Echinochloa walteri			/	/		Luziola fluitans (Hydrochloa carolinensis)					
Eclipta prostrata (E. alba)			/			Magnolia virginiana					
Eichhornia crassipes						Mayaca fluviatilis					
*Eleocharis						Melaleuca quinquenervia					
Eleocharis cellulosa						Micranthemum glomeratum					
*Eleocharis elongata						Micranthemum umbrosum					
Eleocharis equisetoides						Mikania scandens	/			/	
Eleocharis interstincta						Mimosa pigra					
Eleocharis submersa viviparous			/	/		Myrica cerifera	/				
*Eriocaulon compressum											
*Eriocaulon decangulare											
Eupatorium capillifolium	/			/		**Enter in SBIO as Ludwigia (unknown nativity) and note in comments that it was the hexapetala-grandiflora-uruguayensis complex					
Fraxinus											

* No Dominant in section 7

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: Lake Nani					Date: 8/22/17				
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 (Scirpus validus)				
Nitella spp.	✓				Scirpus cubensis (Oxycaryon cubense)				
Nuphar sp.					Scirpus cyperinus				
Nymphaea mexicana					*Sesbania herbacea			✓	
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.	C	✓		✓
Paspalum urvillei					Urochloa mutica (Brachiaria mutica)				
Peltandra sp.					*Utricularia gibba (U. biflora)	✓			✓
Persea sp.					*Utricularia foliosa				
Pennisetum purpureum					*Utricularia inflata				
Phragmites australis					*Utricularia purpurea				
Pinus elliotii					*Utricularia radiata				
Pistia stratioides					*Utricularia resupinata				
Pluchea sp.				✓	Vallisneria americana				
*Polygonum glabrum (densiflorum)					Vitis sp.	✓			
Polygonum hirsutum					*Websteria confervoides				
*Polygonum hydropiperoides					Wedelia trilobata (Sphagneticola trilobata)		✓		✓
*Polygonum punctatum	✓				Wolffiella spp.				
*Polygonum					Woodwardia virginica				
Pontederia cordata					Xyris sp.				
*Potamogeton diversifolius					Zizania aquatica				
*Potamogeton illinoensis					Zizaniopsis milacea				
*Potamogeton pusillus					Vigna luteola	✓			✓
*Potamogeton pectinatus (Stuckenia pectinatus)					Cyperus papyrus		✓		✓
Proserpinaca pectinata					Phylla nodiflora				✓
*Rhexia					Panicum virgatum	✓			✓
*Rhynchospora corniculata									
*Rhynchospora inundata									
Rhynchospora nitens									
Ricciocarpus natans									
Sabal palmetto	✓								
Sacciolepis striata									
*Sagittaria filiformis									
*Sagittaria graminea									
*Sagittaria isoetiformis									
Sagittaria lancifolia	✓			✓					
Sagittaria latifolia									

Lake Nan 3000H

