FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PLAN FIELD SHEET

January 2020

Meter Passed End of Day CCV
Yes / No
DO failed CCV

WIN Station Name: Lake Lindley @ Center of North Lobe **Date:** 7/26/2021

WIN/Field ID: G2CE0220 **WBID:** 2630E **ENR:** - **Latitude:** 29.05

County: VOLUSIA **Org ID:** 21FLCEN **Longitude:** -81.28

Receiving Body of Water: Lower St. Johns **RQ-** 2021-05-10-08

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
[x] Elizabeth Bates	x		x		
[x] Katie March		x		x	x
[ ]					
[ ]					

Sampling Equipment

- [x] Sample Container
- [ ] Dipper
- [x] Syringe
- [ ] Carboy
- [ ] Van Dorn
- [ ] Pole

Depth measured with: Secchi
Secchi Equipment ID: Knothead

Collection Method

- [ ] Wading
- [ ] From Shore
- [ ] Other _____
- [ ] Canoe/Kayak
- [ ] Electric Motor
- [x] Gasoline Motor

Water Level: [x] Normal [ ] Low [ ] High [ ] Dry [ ] Pooled [ ] Flooded

Meter ID# CRAW DADDY

Photos: NO **Flow:** NA **Tide:**

Tide Times: High: Low:

Biological Samples Collected: [ ] None [ ] HA [ ] SCI [ ] RPS [ ] Algae ID [ ] LVS [x] LVI Other:

SBIO ID Numbers: SBIO ID: 82948 Macrophyte ID: 11922 LIMS ID: 2265191

Notes:

Duplicate Sample

Time Zone: EST **Time:** _____ **Field ID:** _____ (WIN ID_DUP)

WIN DMT Activity ID: _____

Blank

Time Zone: _____ **Time:** _____ **Field ID:** _____ (Blank Type_DDMMYYYY)

DI Source: _____ **Location:** _____

DI Type: _____ **Equipment ID:** _____

DI Container (Name/ID): **DI Container Type:**

LIMS EVENT ID: CEN-DIST-2021-07-27-03 **WIN Import ID:** 28669

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 8/10/21 (Initials/Date) **QC Station ID, Field Parameters In LIMS DMT:** EB 8/26/21 (Initials/Date)

Scan/Save Field Sheets KWM 9/21/21 (Initials/Date) **Migrate Data to WIN:** KWM 9/21/21 (Initials/Date) **Verify Data In WIN:** _____ (Initials/Date)

RQ-2021-05-10-08
Customer: WQAP
Project ID: SMP

Collected By: Elizabeth Bates, Katie March
Field Report Prepared By: Elizabeth Bates
Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID: G2CE0220

Location: Lake Lindley @ Center of North Lobe

Comments: Forgot photos

DO FAILED CCV

Matrix: Fresh

(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 (PPTh)
	1123 EST	7.66	102.5	30.7	6.85	0.3	2.3 ☐ VOB (S)	7.8	133.2	0.06
7/26/2021	1126	7.77	103.6	30.4	6.78	2.0			132.9	0.06
	1130 EST	0.25	2.9	23	6.11	7.3			189.9	0.09

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 ☒ $H2SO_4$*	☒ <2	1	A
	Lot # SA1105060 **Exp:**	4/30/2022			
Metals (P-500ML)	☐ W-ICPMS ☐ W-ICP ☐ W-HARD	☐ Ice ☐ HNO_3*	☐ <2		
	Lot # **Exp:**				
Filtered Nutrients (P125ML)	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice		1	A
	Filter Lot # 17135566				
	Syringe Lot # 1091364				
Chlorophyll (BP-1L)	☒ CHLSUITE-W	☒ Ice		1	A
Physical/Aggregate (Fresh) (P-1L)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice		1	A
Physical/Aggregate (Marine) (P-1L)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates (PJ-2L)	☐ MI-FW-QLDC **Formalin Lot #**	☐ Formalin			
Periphyton (PT-50ML)	☐ ALGAE-ID	☐ Ice			
Microbiology (Contract Lab Bottle)	☐ E Coli ☐ F Coli ☐ Enterococci ☐ Contract Lab	☐ Ice			
Molecular (QPCR-P-500ML)	☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD ☐	☐ 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-TQ-R W-CARB-AA (5 ml of MCAA** Buffer Solution)	☐ Ice			
Phytoplankton/Periphyton	DTY-QN-C PKD-QN-BV	☐ Ice			

Name:
Elizabeth Bates
Katie March

Signature:

Date: 07/26/2021

*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: Lindley Lake	County: Volusia	Date: 7/26/21
Analyst: Katie March, Orbital	Signature:	STORET:

Except where noted as "sp." species level identification required. *Genera that may require lab verification*
Plants in bold= FLEPPC invasive exotic.
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.

Lake units sampled (circle one group):
1, 4, 7, 10 2, 5, 8, 11
3, 6, 9, 12

SPECIES	2	5	8	11	Collected? (√)
Acer rubrum					
Alternanthera philoxeroides	/	/	/	/	
Amaranthus australis					
Andropogon sp.					
Azolla filiculoides (A. caroliniana)					
Baccharis sp.		/		/	
Bacopa caroliniana					
Bacopa monnieri					
Bidens alba					
Bidens laevis					
Bidens mitis					
Blechnum serrulatum					
Boehmeria cylindrica					
Brasenia schreberi					
Cabomba caroliniana					
Canna					
Centella asiatica					
Cephalanthus occidentalis	/	/	/	/	
Ceratophyllum demersum					
Chara sp.					
Cladium jamaicense					
Colocasia esculenta					
*Commelina					
Crinum americanum					
***Cyperus alternifolius (C. involucratus)**					
Cyperus articulatus					
Cyperus haspan	/	/			
*Cyperus lecontei					
*Cyperus polystachyos					
*Cyperus odoratus					
*Cyperus surinamensis					
Cyrilla racemiflora					
Decodon verticillatus					
Diodia virginiana					
*Echinochloa crus-galli					
*Echinochloa muricatum					
Echinochloa walteri					
Eclipta prostrata (E. alba)					
Eichhornia crassipes					
*Eleocharis					
Eleocharis cellulosa					
*Eleocharis elongata	C	C	D		
Eleocharis equisetoides					
Eleocharis interstincta					
Eleocharis submersed viviparous			/	/	
Eriocaulon compressum					
riocaulon decangulare					
atorium capillifolium	/		/	/	
nus					

SPECIES	2	5	8	11	Collected? (√)
Fuirena scirpoides	/	/			
Gordonia lasianthus					
Habenaria repens					
Hibiscus coccineus					
Hibiscus grandiflora					
Hydrilla verticillata					
Hydrocotyle sp.	/	/		/	
Hygrophila polysperma					
Hymenocallis sp.					
*Hypericum fasciculatum					
*Hypericum hypericoides					
*Hypericum myrtifolium					
Ilex cassine					
Ipomoea aquatica					
Ipomoea sagittata					
Itea virginica					
Juncus effusus					
*Juncus marginatus	/	/			
*Juncus megacephalus					
Juncus repens					
*Juncus scirpoides					
Lachnanthes caroliniana		/	/		
Leersia hexandra	/	/			
Landoltia punctata (Spirodela punctata)					
Lemna sp.					
Leucothoe racemosa (Eubotrys racemosa)					
Limnobium spongia					
Limnophila sessiliflora					
Liquidamber styraciflua					
*Ludwigia arcuata					
*Ludwigia grandiflora					
*Ludwigia hexapetala					
*Ludwigia leptocarpa					
Ludwigia (native)					
*Ludwigia octovalvis			/		
***Ludwigia peruviana**	/	/	/	/	
*Ludwigia repens					
Ludwigia suffruticosa		/			
Luziola fluitans (Hydrochloa carolinensis)					
Magnolia virginiana					
Mayaca fluviatilis					
Melaleuca quinquenervia					
Micranthemum glomeratum					
Micranthemum umbrosum					
Mikania scandens	/	/		/	
Mimosa pigra					
Myrica cerifera					
Fuirena pumila		/			

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: Lindley | Date: 7/26/21

SPECIES					Collected? (√)
Myriophyllum aquaticum					
*Myriophyllum heterophyllum					
*Myriophyllum laxum					
*Myriophyllum pinnatum					
Myriophyllum spicatum					
*Najas filifolia					
*Najas guadalupensis					
*Najas minor					
Nelumbo lutea					
Nitella spp.	e	e			
Nuphar sp.			X	/	
Nymphaea mexicana					
Nymphaea odorata					
Nymphoides aquatica					
Nyssa sylvatica var. biflora					
Orontium aquaticum					
Osmunda cinnamomea					
Osmunda regalis					
Panicum hemitomon	/	X	/	/	
Panicum repens		/	/	/	
Paspalidium geminatum					
*Paspalum repens					
Paspalum urvillei					
Peltandra sp.					
Persea sp.					
Pennisetum purpureum					
Phragmites australis					
Pinus elliottii					
Pistia stratioides					
Pluchea sp.					
*Polygonum glabrum (densiflorum)					
Polygonum hirsutum					
*Polygonum hydropiperoides					
*Polygonum punctatum					
*Polygonum punctatum	/				/
Pontederia cordata		/			
*Potamogeton diversifolius					
*Potamogeton illinoensis					
*Potamogeton pusillus					
*Potamogeton pectinatus (Stuckenia pectinatus)					
Proserpinaca pectinata					
*Rhexia					
*Rhynchospora corniculata					
*Rhynchospora inundata					
Rhynochospora nitens					
Ricciocarpus natans					
Sabal palmetto					
Sacciolepis striata	/	/	/	/	
*Sagittaria filiformis					
*Sagittaria graminea					
*Sagittaria isoetiformis					
Sagittaria lancifolia					
Sagittaria latifolia					

SPECIES	2	5	8	11	Collected? (√)
Salix caroliniana		/			
Salvinia minima		/			
Sambucus canadensis				/	
Sapium sebiferum		/			
Saururus cernuus					
Schinus terebinthifolius					
*Schoenoplectus californicus					
*Schoenoplectus pungens					
*Schoenoplectus tabernaemontani (Scirpus validus)					
Scirpus cubensis (Oxycaryon cubense)					
Scirpus cyperinus					
*Sesbania					
Solidago sp.					
Sparganium americanum					
Spartina bakeri					
Spirodela polyrhiza					
Taxodium sp.		/			
Thalia geniculata					
Thelypteris interrupta					
Thelypteris palustris					
Triadenum virginicum					
Typha sp.	/	/	/		
Urochloa mutica (Brachiaria mutica)					
*Utricularia foliosa					
*Utricularia gibba (U. biflora)					
*Utricularia inflata					
*Utricularia purpurea					
*Utricularia radiata					
*Utricularia resupinata					
Vallisneria americana					
Vigna luteola	/		/		
Vitis sp.					
*Websteria confervoides					
Wedelia trilobata (Sphagneticola trilobata)					
Wolffiella spp.					
Woodwardia virginica					
Xyris sp.					
Zizania aquatica					
Zizaniopsis milacea					

G2CE0220

E
Eup
Fraxii

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: 29.05

COUNTY: Volusia STORET #: _____ LONGITUDE: -81.28

DATE: 7/26/21 TIME: 11:23 SAMPLING AGENCY: 21FLCEN

SITE NAME: Lake Lindley @ center of North Lobe WBID: 2630E

FIELD ID/NAME: G2CE0220 LAKE SIZE: 27 acres RQ: 2021-05-10-08

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)
		40		60			

LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI: 1.4.1/6.8

Land Use Source & Year: 2013-2016

Local Watershed Erosion (select one) : ☐ None ☑ Slight ☐ Moderate ☐ Heavy

Local Watershed NPS Pollution : ☐ No evidence ☐ Slight ☑ Moderate ☐ Heavy

Artificially Impounded ☐ Yes ☑ No

STORMWATER INPUTS 8	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 8	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 6	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 ☑ pH<2 ☐ No

Color Sample Taken? ☐ Yes ☐ No Lot # SAH050060 Exp. Date: 4/30/22

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:	0.3	30.7	6.85	7.46	102.5	133.2	0.06
Mid-Depth:	2.0	30.4	6.78	7.77	103.6	132.9	0.06
Bottom :	7.3	23.0	2.9	0.25	2.9	189.9	0.09

Meter ID: Crawdaddy 6.11

Clarity: ☐ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid

Color: ☐ Clear ☐ Tannic ☐ Green

SECCHI (M) 2.3 VOB ☐

Total Station Depth (M) 7.8

Sediment Type: (may check more than one) Sample Taken? ☐ Yes ☑ No

☐ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated

☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____

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:

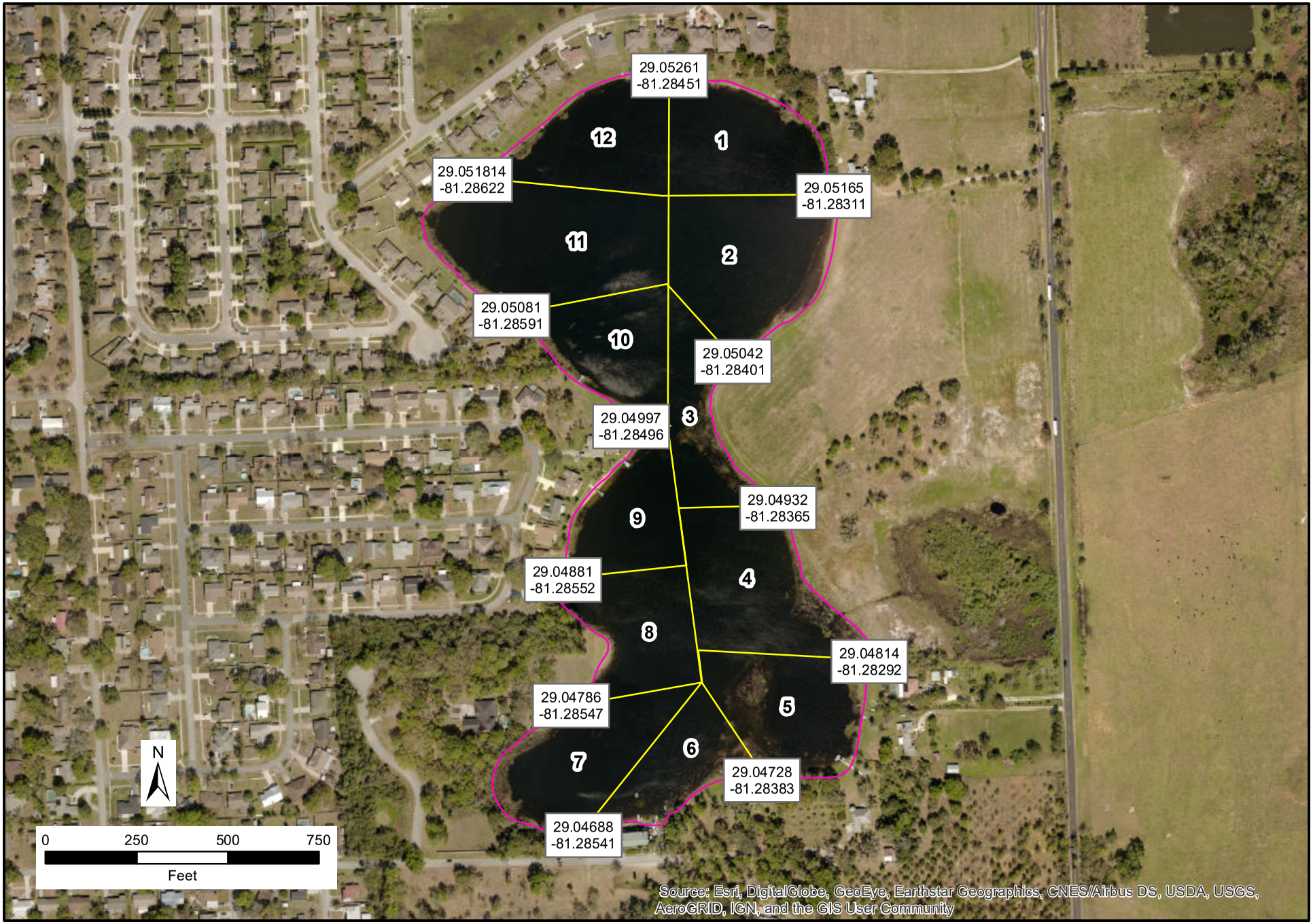
WIN ID / Field ID →

Lake Lindley @ Center of North Lobe

Weather Conditions : Sunny breezy

SAMPLING TEAM: KBates, Katie March **SIGNATURE:** _____ **DATE:** 7/26/21

LVI Map for Lindley Lake, WBID 2630E



Current Date: 8/21/2019

Date Saved: 8/24/2016