

56148 wim

Waterbody: <u>Crescent Lake</u>				County: <u>Putnam</u>				Date: <u>7-30-2019</u>			
Analyst: <u>J. Parrish/A. Kimbacher/C. Ruben</u>				Signature: <u>A. Kimbacher</u>				STORET: <u>50867</u>			
Except where noted as "sp." species level identification required. *Genera that may require lab verification* Plants in bold = FLPPC invasive exotic. <u>K. Appleby</u> 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? (✓)	SPECIES	2	5	8	11	Collected? (✓)
<i>Acer rubrum</i>	P	P	P	P		<i>Habenaria repens</i>					
<i>Alternanthera philoxeroides</i>	P	P	P	P		<i>Hydrilla verticillata</i>					
<i>Andropogon</i> sp.						<i>Hydrocotyle</i> sp.		P	P		
<i>Azolla filiculoides</i> (<i>A. caroliniana</i>)						<i>Hygrophila polysperma</i>					
<i>Baccharis</i> sp.	P			P		* <i>Hypericum fasciculatum</i>					
<i>Bacopa caroliniana</i>						* <i>Hypericum hypericoides</i>					
<i>Bacopa monnieri</i>						* <i>Hypericum myrtifolium</i>					
<i>Bidens laevis</i>						<i>Ilex cassine</i>					
<i>Bidens mitis</i>						<i>Ipomoea aquatica</i>					
<i>Blechnum serrulatum</i>						<i>Ipomoea sagittata</i>					
<i>Boehmeria cylindrica</i>						<i>Itea virginica</i>					
<i>Brasenia schreberi</i>						<i>Juncus effusus</i>					
<i>Cabomba caroliniana</i>						* <i>Juncus marginatus</i>					
<i>Casuarina equisetifolia</i>						* <i>Juncus megacephalus</i>					
<i>Centella asiatica</i>						<i>Juncus repens</i>					
<i>Cephalanthus occidentalis</i>	P	P	P	P		* <i>Juncus scirpoides</i>	P		P		
<i>Ceratophyllum demersum</i>						<i>Lachnanthes caroliniana</i>					
<i>Chara</i> sp.						<i>Leersia hexandra</i>					
<i>Cladium jamaicense</i>						<i>Landoltia punctata</i> (<i>Spirodela punctata</i>)					
<i>Cliftonia monophylla</i>						<i>Lemna</i> sp.					
<i>Colocasia esculenta</i>	P		P	P		<i>Leucothoe racemosa</i> (<i>Eubotrys racemosa</i>)					
* <i>Commelina</i>						<i>Limnium spongia</i>					
<i>Crinum americanum</i>						<i>Limnophila sessiliflora</i>					
* <i>Cyperus alternifolius</i> (<i>C. involucratus</i>)						<i>Liquidambar styraciflua</i>	P		P	P	
<i>Cyperus articulatus</i>						* <i>Ludwigia arcuata</i>					
<i>Cyperus haspan</i>						* <i>Ludwigia leptocarpa</i>					
* <i>Cyperus lecontei</i>						* <i>Ludwigia linearis</i>					
* <i>Cyperus polystachyos</i>						* <i>Ludwigia octovalvis</i>	P	P	P		
* <i>Cyperus odoratus</i>						* <i>Ludwigia peruviana</i>			P	P	
* <i>Cyperus surinamensis</i>						* <i>Ludwigia repens</i>					
<i>Cyrtilla racemiflora</i>						* <i>Ludwigia</i>					
<i>Decodon verticillatus</i>						<i>Luziola fluitans</i> (<i>Hydrochloa carolinensis</i>)					
<i>Diodia virginiana</i>						<i>Lyonia lucida</i>					
* <i>Echinochloa crus-galli</i>						<i>Magnolia virginiana</i>					
* <i>Echinochloa muricatum</i>						<i>Mayaca fluviatilis</i>					
<i>Echinochloa walteri</i>			P			<i>Melaleuca quinquenervia</i>					
<i>Eclipta prostrata</i> (<i>E. alba</i>)						<i>Micranthemum glomeratum</i>					
<i>Egeria densa</i>						<i>Micranthemum umbrosum</i>					
<i>Eichhornia crassipes</i>						<i>Mikania scandens</i>			P		
* <i>Eleocharis baldwinii</i>						<i>Mimosa pigra</i>					
* <i>Eleocharis</i>						<i>Myrica cerifera</i>	P	P	P	P	
<i>Eleocharis cellulosa</i>						<i>Amorpha fruticosa</i>	P	P	P	P	
<i>Eleocharis equisetoides</i>						<i>Aster caroliniana</i>	P		P	P	
<i>Eleocharis interstincta</i>						<i>Cicuta maculata</i>	P		P		
* <i>Eriocaulon compressum</i>						<i>Hibiscus coccineus</i>	P		P	P	
* <i>Eriocaulon decangulare</i>						<i>Fraxinus caroliniana</i>	P		P	P	
<i>Eupatorium capillifolium</i>	P	P	P			<i>Carya aquatica</i>	P		P	P	
* <i>Fuirena</i>						<i>Kosteletzkya virginica</i>	P	P	P	P	
<i>Fuirena scirpoidea</i>						<i>Ulmus americana</i>		P	P	P	
<i>Gordonia lasianthus</i>											

Revision Date: January 2017

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

(K) 80565

23-LL-13012

STORET STATION NUMBER:	DATE (M/D/Y) 2/30/19	LAKE NAME Crescent Lake		FIELD ID / NAME:
ECO-REGION:	COUNTY Putnam	SAMPLING LOCATION/DESCRIPTION:		LAKE SIZE:
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	Poor
Secchi	Secchi > 3 m Or VOB	Secchi(m)	3 2.6 2.2 1.8 1.4	1.0 0.9 0.8 0.7 0.6
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
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 3 2 1
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 3 2 1
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 3 2 1
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 3 2 1
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 3 2 1
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 3 2 1

TOTAL SCORE

86

COMMENTS:

ANALYSIS DATE:

7/30/19

ANALYST:

Jerry Can

SIGNATURE:

Jerry Can

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____	MACROPHYTE ID: _____	LATITUDE: <u>29° 25' 33.2"</u>
COUNTY: <u>Pulham</u>	STORET #: <u>56148</u>	LONGITUDE: <u>81° 28' 39.6"</u>
DATE: <u>7/30/19</u>	TIME: <u>1215</u>	SAMPLING AGENCY: _____
SITE NAME: <u>Crescent Lake 23-LL-13012</u>		WBID: _____
FIELD ID/NAME: _____		LAKE SIZE: _____ RQ: _____

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) :				LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer)				
Forest/Natural <u>50</u>	Silviculture 	Field/Pasture 	Agricultural 	Residential <u>50</u>	Commercial 	Industrial 	Other (Specify) 	
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 <u>10</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>11</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>13</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 # _____ Exp. Date: _____ Alkalinity Sample Taken? ☐ Yes ☐ No Water Level ☐ Low ☐ Normal ☐ High						Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____					
Meter Readings: Top: <u>0.3</u> <u>30.1</u> <u>8.4</u> <u>8.4</u> <u>111.7</u> <u>480</u> <u>0.23</u> Mid-Depth: <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> Bottom: <u>2.8</u> <u>29.3</u> <u>7.15</u> <u>6.83</u> <u>89.4</u> <u>475</u> <u>0.23</u>						Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____					
Meter ID: _____						Clarity: ☐ Clear ☒ 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): _____						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: _____						Additional Notes: <u>Algae in water column</u>					
SAMPLING TEAM: <u>Jessie Cain / Kaitlyn / Amy Kalmakis / Cheyenne Riser</u>						SIGNATURE: <u>Jessie Cain</u>					
DATE: <u>7/30/19</u>											

DEP TIER 1
STATUS NETWORK SITE CHARACTERIZATION

Stream/Water Body Name: **Crescent Lake**

Site ID	Latitude	Longitude	Type of Recon	Date of Recon
Z3-LL-13012			Site Visit	

Return Recon #1 _____

Return Recon #2 _____

Return Recon #3 _____

Resource Type	Secondary Resource Type
Large Lake	No 2nd Type
Desk Recon: 12/13/2018 By: Nate Gargas	Letter Sent:
Recon Team:	

Site Location Address & Contact Information	Property Owner's Address
_____	_____
_____	_____
_____	_____
<i>Data Requested:</i>	<i>County:</i> Flagler

Tidal Info: _____

Access and Permission
PUBLIC ACCESS

Reason for Exclusion

Recon Result
For Site:
Z3-LL-13012

INCLUDE

ADDITIONAL NOTES

Additional Items: Duracraft or larger

DIRECTIONS:

Launch Boat at Margary Neal Nelson Sunrise Park and Boat Ramp (Crescent City Public Ramp) located at 107 Cypress Street, Crescent City FL 32112.

FILES GENERATED:
(i.e. digital photos, GPS, etc.)



Generalized Water Information System Database Utilities

Recon Tracking

Existing Station

New SW Station

New GW Station

PK RANDOM SAMPLE LOCATION = Z3-LL-13012

County	FLAGLER	Quarter Quad	
WMD	ST. JOHNS RIVER WMD	HUC	LOWER ST. JOHNS
Random Latitude	29° 25m 32.4142s	Random Longitude	81° 28m 39.2785s

Is Z3-LL-13012 sampleable?

☒ Yes ☐ No ☐ N/A

Exclusion Category:

Exclusion Criteria:(definitions):

Was Z3-LL-13012 sampled?

☐ Yes

Month Day Year

Comments:

Save

Reset

☒ Aerial Photo ☐ Quad Map ☐ No Image

Show Map



Google Earth

miles
km

