



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name: Pine Lake @ Center

Date: 05/06/2019

WIN/ Field ID: G2SW0084

WBID: 1523G

Latitude: 28.06070

(mm/dd/yyyy)

County: Hillsborough

ORG ID: 21FLTPA

Longitude: -82.47220

(Decimal Degrees)

Receiving Body of Water: NA

RQ-2019- 05-06-15

(Decimal Degrees)

Sampling Team Members

Ben Paswater
Sarah Meyer

WQ Measurements
Sample Collection
Documentation
Preservation
Preservation Check

Sampling Equipment

☒ Sample Container ☐ Van Dorn ☐ Pole
☐ Carboy ☐ Syringe
☐ Dipper ☐ Other

Depth Measured with: Secchi

Equipment ID Secchi #1

Collection Method

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

Water Level: Dry/ Pooled/ Low / (Normal) / High / Flooded

Meter ID# Chewy

Matrix: (Fresh) / Marine / DI

Photos: Yes / No

Flow: No Flow / Interstitial / Flowing (NA)

Tide: Rising/ Falling/ Slack (NA)

Tide Times: High Low

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (umhos/cm)	Temp. (C°)
<u>EST</u>	<u>1140</u>	<u>3.1</u>	<u>0.3</u>	<u>0.6</u>	<u>9.20</u>	<u>119.3</u>	<u>8.90</u>	<u>0.09</u>	<u>199.6</u>	<u>28.8</u>
			<u>2.6</u>		<u>0.20</u>	<u>2.5</u>	<u>6.63</u>	<u>0.10</u>	<u>205.6</u>	<u>26.7</u>

Biological Samples Collected: None HA SCI RPS Algae ID LVS (LVI) Other:

SBIO ID Numbers: SBIO-ID: 79665 HA-ID: 15943 RPS-ID: ———— Macrophyte-ID: 11313 LIMS#: 2084061

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	<u>SA8344070</u>	<u>12/19</u>	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <2
Filtered Nutrients	☒ W-PO4-F ☐ Field Filtered 0.45 um 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-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC	☐ 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			
Phytoplankton	☐ DTY-QN-C ☐ PKD-QN-C				

Place Preservative Sticker(s) Here
(If Available)

Notes:

Field ID/WIN:



G2SW0084

Site Name: Pine Lake

Signature: Sarah Meyer

Date:

05/06/2019

LIMS EVENT ID: 2019-05-07-02

WIN Import ID: 13223

Enter Field Parameters, Verify Station ID in LIMS DMT: SM 05/21/2019

QC Station ID, Field Parameters in LIMS DMT: 07/31/2019 SM

Scan/Save Field Sheets SM 09/16/2019
(Initials/Date)

Migrate Data to WIN: SM 07/31/2019
(Initials/Date)

Verify Data in WIN: SM 09/16/2019

(Initials/Date)

Station: B Paswater S Meyer RET: G2SW0084	Waterbody: Pine Lake Signature: <i>[Signature]</i>	County: Hillsborough Date: 05/06/2019
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Report 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.

taxon, or 5 for the 20-dominant taxa.						5, 8, 11, 2						Collec									
SPECIES						5	8	11	2	Collec	SPECIES						5	8	11	2	Collec
						✓	✓	✓	✓	(✓)											(✓)
Acer rubrum						✓	✓	✓	✓		Habenaria repens										
Alternanthera philoxeroides						✓	✓	✓	✓		Hymenachne amplexicaulis										
Andropogon sp.											Hydrilla verticillata										
Azolla filiculoides (A. caroliniana)											Hydrocotyle sp.						✓	✓	✓	✓	
Baccharis sp.											Hypophila polysperma										
Bacopa caroliniana											*Hypericum fasciculatum										
Bacopa monnieri											*Hypericum hypericoides										
Bidens laevis											*Hypericum myrtifolium										
Bidens mitis											Ilex cassine										
Blechnum serrulatum											Ipomoea aquatica										
Boehmeria cylindrica								✓			Ipomoea sagittata										
Brasenia schreberi											Itea virginica										
Cabomba caroliniana											Juncus effusus						✓	✓			
Casuarina equisetifolia											*Juncus marginatus										
Centella asiatica											*Juncus megacephalus										
Cephalanthus occidentalis											Juncus repens										
Ceratophyllum demersum											*Juncus scirpoides										
Chara sp.											Lachnanthes caroliniana										
Cladium jamaicense											Leersia hexandra										
Cliftonia monophylla											Landoltia punctata (Spirodela punctata)										
Colocasia esculenta											Lemna sp.										
*Commelina											Leucothoe racemosa (Eubotrys racemosa)										
Crinum americanum											Limnium spongia										
*Cyperus alternifolius (C. involucratus)						✓					Limnophila sessiliflora										
Cyperus articulatus											Liquidambar styraciflua										
Cyperus haspan											*Ludwigia arcuata										✓
*Cyperus lecontei											*Ludwigia leptocarpa										
*Cyperus polystachyos						✓					*Ludwigia linearis										
*Cyperus odoratus											*Ludwigia octovalvis						✓				
*Cyperus surinamensis											*Ludwigia peruviana							✓	✓	✓	
Cyrilla racemiflora											*Ludwigia repens										
Decodon verticillatus											*Ludwigia										
Diodia virginiana											Luziola fluitans (Hydrochloa carolinensis)										
*Echinochloa crus-galli											Lyonia lucida										
*Echinochloa muricatum																					
Echinochloa walteri						✓															
Eclipta prostrata (E. alba)																					
Egeria densa											Cyperus						✓				✓
Eichhornia crassipes						✓	✓	✓	✓		Cyperus Alternifolius										
*Eleocharis baldwinii						✓	✓	✓	✓												
*Eleocharis																					
Eleocharis cellulosa																					
Eleocharis equisetoides																					
Eleocharis interstincta																					
*Eriocaulon compressum																					
*Eriocaulon decangulare																					
Eupatorium capillifolium						✓	✓	✓	✓	✓											
*Fuirena						✓	✓	✓	✓	✓											
Fuirena scirpoidea																					
Gordonia lasianthus																					

Field ID/WIN

G2SW0084







Date: 05/06/2019

Name: Pine Lake @ Center

SPECIES	5	8	11	2	Collected? (✓)	SPECIES	5	8	11	2	Collected? (✓)
Magnolia virginiana						Sabal palmetto					
Mayaca fluviatilis						Sacciolepis striata		✓			
Melaleuca quinquenervia		✓			✓	*Sagittaria filiformis					
Micranthemum glomeratum						*Sagittaria graminea					
Micranthemum umbrosum						*Sagittaria isoetiformis					
Mikania scandens						Sagittaria lancifolia					
Mimosa pigra						Sagittaria latifolia					
Myrica cerifera						Salix caroliniana					
Myriophyllum aquaticum						Salvinia minima					
*Myriophyllum heterophyllum						Sambucus canadensis					
*Myriophyllum laxum						Sapum sebiferum					
*Myriophyllum pinnatum						Saururus cernuus					
Myriophyllum spicatum						Schinus terebinthifolius					
*Najas filifolia						*Schoenoplectus californicus (Cali bulrush)					
*Najas guadalupensis						*Schoenoplectus pungens (three square)					
*Najas minor						*Schoenoplectus tabernaemontani (softstem)					
Nelumbo lutea						Scirpus cubensis (Oxycaryon cubense)					
Nitella spp.	✓					Scirpus cyperinus					
Nuphar sp.	✓	✓	✓	✓		*Sesbania					
Nymphaea odorata	✓					Solidago sp.					
Nymphoides aquatica						Sparganium americanum					
Nyssa sylvatica var. biflora						Spartina bakeri		✓			
Orontium aquaticum						Sphagneticola trilobata (Wedelia)				✓	
Osmunda cinnamomea						Spirodela polyrhiza					
Osmunda regalis						Taxodium sp.		✓			
Panicum hemitomon						Thalia geniculata					
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 floridana					
Pennisetum purpureum						*Utricularia foliosa					
Phragmites australis						*Utricularia inflata					
Pinus elliotii						*Utricularia purpurea					
Pistia stratioides						*Utricularia cornuta					
Pluchea sp.						*Utricularia radiata					
*Polygonum glabrum (densiflorum)	✓	✓	✓	✓		Vallisneria americana					
*Polygonum hydropiperoides						*Websteria confervoides					
*Polygonum punctatum						Wolffiella spp.					
*Polygonum sp.						Woodwardia virginica					
Pontederia cordata						Xyris sp.		✓			
*Potamogeton diversifolius						Zizania aquatica					
*Potamogeton illinoensis						Zizaniopsis milacea					
*Potamogeton pusillus											
*Potamogeton pectinatus											
Proserpinaca pectinata											
*Rhexia											
*Rhynchospora corniculata											
*Rhynchospora inundata											
Rhynchospora tracyi											
Ricciocarpus natans											

Name: Pine Lake @ Center

COUNTY: Hillsborough

LAKE SIZE: Small

TIME: 1140

PLING AGENCY: FLDEP SWROC

WATERSHED / LAKESIDE FEATURES

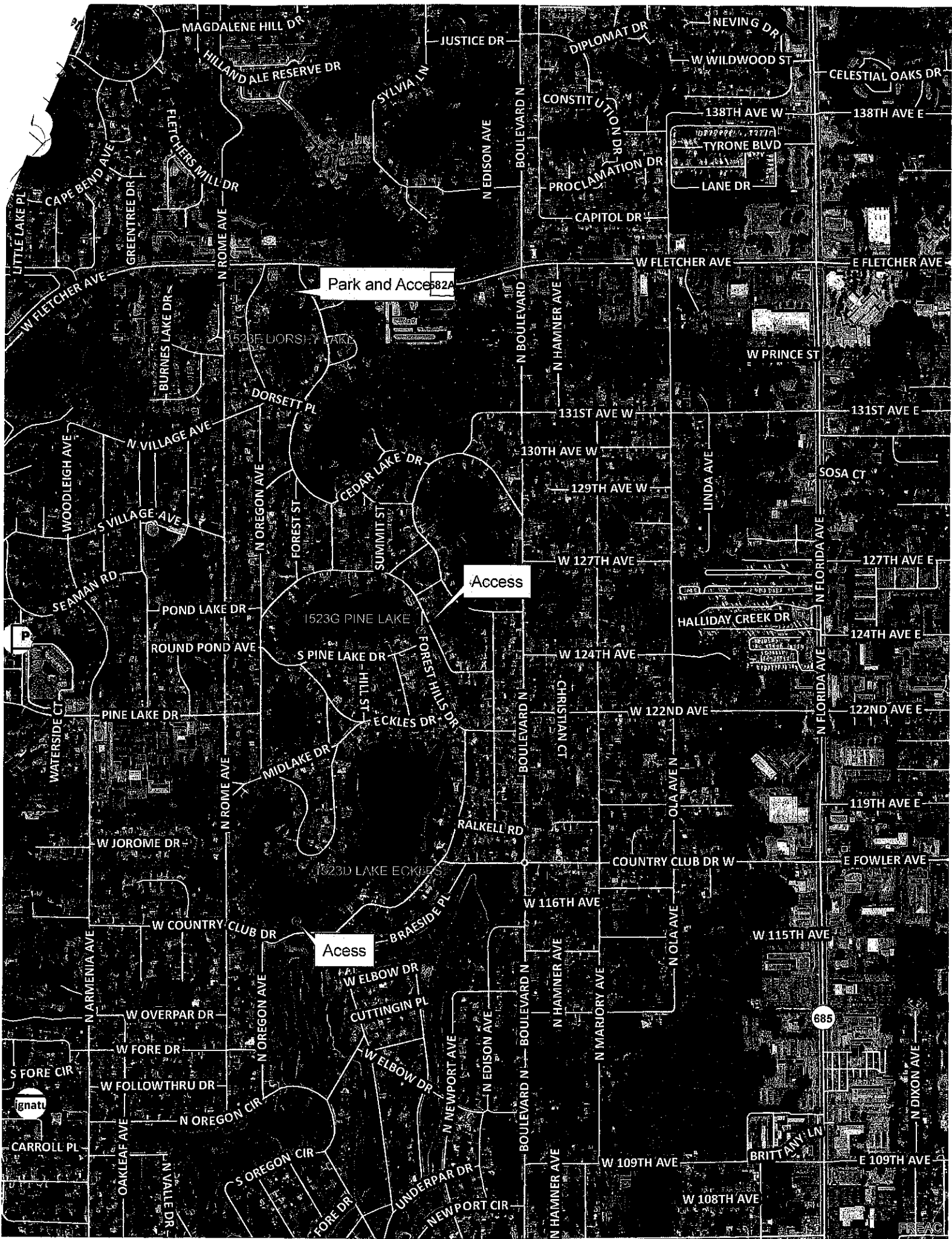
PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category - from GIS):						LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer)							
Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)	LDI:					
								Land Use Source & Year:					
Local Watershed Erosion (select one): ☐ None ☒ Slight ☐ Moderate ☐ Heavy						Artificially Impounded ☐ Yes ☒ No							
Local Watershed NPS Pollution: ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy													
STORMWATER INPUTS		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					
8		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)					
9		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					
2		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: Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat. (%) Cond. (UMHO/CM) Salinity (PPT) Top: 0.3 23.8 8.90 9.20 119.3 199.6 0.09 Mid-Depth: _____ Bottom: 2.6 26.7 6.63 0.20 2.5 205.6 0.10						Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____					
Meter ID: Chewy						Clarity: ☐ Clear ☒ Turbid ☐ Opaque ☐ Slightly Turbid					
Sediment Type: (may check more than one) ☒ Sandy ☒ Organic fibrous (peaty, CPOM) ☐ Vegetated ☒ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____						Color: ☐ Clear ☒ Green ☐ Tannic					
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						SECCHI (M) 0.6 Total Station Depth (M) 3.1 VOB ☐					
Abundance: Absent Rare Common Abundant Periphyton ☐ ☐ ☐ ☒ Nuisance Plants ☐ ☐ ☒ ☐ Submersed Plants ☐ ☒ ☐ ☐ Exotic Apple Snails ☐ ☒ ☐ ☐						Sediment Odors: ☐ Normal ☐ Other (Specify): _____ ☒ Anaerobic					
Weather Conditions: Sunny 85°											
SAMPLING TEAM: Ben Paswater, Sarah Meyer						SIGNATURE: Ben Paswater			DATE: 5/6/19		

STORET STATION NUMBER: SEE STICKER UPPER RIGHT	FIELD ID / NAME: <i>front page</i> PUT STICKER ^	LAKE NAME: <i>Pine Lake</i>		ECO-REGION: <i>2524</i>
	LAKE SIZE: <i>Small</i>	SAMPLING LOCATION/DESCRIPTION: <i>Lake Center</i>		COUNTY: <i>HILLSBOROUGH</i>
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
Secchi	Secchi > 3 m Or VOB	Secchi(m)		Poor
	20 19 18 17 16	3 2.6 2.2 1.8 1.4	1.0 0.9 0.8 0.7 0.6	0.5 0.4 0.3 0.2 0.1
	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 <i>6</i>	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
	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 <i>8</i>	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
	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 <i>12</i>	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
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Lakeside Adverse Human Alternations	Very few man-made structures, roads, or other disturbance adjacent to lake (<10%) <i>9</i>	Moderate disturbance visible (structures, roads or other), 10%-49% lakeside affected		Many structures, roads or other human disturbance visible (50%-70%) 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 <i>2</i>	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
	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 <i>11</i>			
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
TOTAL SCORE	<i>54</i>	COMMENTS:		

ANALYSIS DATE: <i>5/6/19</i>	ANALYST: <i>Ben Pasovate</i>	SIGNATURE: <i>Ben Pasovate</i>
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Park and Access

Access

Access

685

Florida Department of Environmental Protection

Central Laboratory Submittal Form

LVIs_Eckles, Dorset & Pine

Customer: SW-DIST

Requester: Judy Ashton

Field Report Prepared By: S Meyer

Project ID: SMP

Collected By: B Pasquater & S Meyer

Sampling Agency: FDEP SW ROC

Location		☐ Comp ☒ Grab	Collection (comp begin or grab) Date 05/06/2019 Time 1010		Eastern Central	Composite end Date _____ Time _____		Bottle Group(s) (See pg 2) A
Field ID/WIN G2SW0083		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen 4.19	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L) _____		
Site Name: Dorset Lake @ Center		Temp (C) 27.6	pH 6.68	Sample Depth 0.3	☐ ft ☒ m	Sp. Conductance (umho/cm) 210.0		
		☐ dd ☐ dms	Salinity (ppt) 0.10	Comments				
Location		☐ Comp ☒ Grab	Collection (comp begin or grab) Date 05/06/2019 Time 1140		Eastern Central	Composite end Date _____ Time _____		Bottle Group(s) A/B
Field ID/WIN G2SW0084		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen 9.20	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L) _____		
Site Name: Pine Lake @ Center		Temp (C) 28.8	pH 8.90	Sample Depth 0.3	☐ ft ☒ m	Sp. Conductance (umho/cm) 99.6		
		☐ dd ☐ dms	Salinity (ppt) 0.09	Comments				
Location		☐ Comp ☒ Grab	Collection (comp begin or grab) Date 05/06/2019 Time 1400		Eastern Central	Composite end Date _____ Time _____		Bottle Group(s) A
Field ID/WIN G2SW0082		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen 7.46	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L) _____		
Site Name: Lake Eckles @ Center		Temp (C) 29.5	pH 7.59	Sample Depth 0.3	☐ ft ☒ m	Sp. Conductance (umho/cm) 179.5		
		☐ dd ☐ dms	Salinity (ppt) 0.08	Comments				
Location		☐ Comp ☒ Grab	Collection (comp begin or grab) Date _____ Time _____		Eastern Central	Composite end Date _____ Time _____		Bottle Group(s)
Field ID		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)		
WIN/STORET #		Temp (C)	pH	Sample Depth	☐ ft ☐ m	Sp. Conductance (umho/cm)		
Latitude		☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt)	Comments		

Relinquished By:

Date/Time

1700

Shipping Method

Number of Coolers Shipped:

Received By:

Date/Time

Sarah Meyer

05/06/2019

FedEx

1

Group: A Bottle Type: P-1L # of Bottles: 3 Preservative: ICE Enter Number of Bottles Sent to Lab 3

ALKALINITY
TURBIDITY
W-CL-IC
W-COLOR
W-F
W-SO4-IC
W-TDS
W-TSS

Group: A Bottle Type: BP-1L # of Bottles: 3 Preservative: ICE Enter Number of Bottles Sent to Lab 3

CHLSUITE-W

Group: A Bottle Type: P-500ML # of Bottles: 3 Preservative: ICE And H2SO4 Enter Number of Bottles Sent to Lab 3

W-NH3
W-NO2NO3
W-S-A-TP
W-TKN
W-TOC

Group: A Bottle Type: P-125ML # of Bottles: 3 Preservative: FILTER-ICE Enter Number of Bottles Sent to Lab 3

W-PO4-F

Group B Bloom-ID

1