



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV

Yes / No

WIN Station Name:	Little Deer Lake Center				Sample Date:	4/26/2023	
WIN / Field ID:	G1SW0070	ORG ID:	21FLTPA	ENR:	Latitude:		28.16382
County:	Hillsborough	WBID:	1478G	LAKE	Longitude:		-82.46534
Receiving Body of Water:	Tampa Bay				RQ-	2023-05-01-18	

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Ben Paswater		x		x	x
Ken Turman	x		x		

Sampling Equipment			
x	Sample Container		Carboy
	Dipper		Van Dorn
	Syringe		Pole
Syringe Lot#	2153759	Filter Lot#	17597810
Secchi Equipment ID:	Secchi #3		
Collection Method			
	Wading	x	Canoe/Kayak
	From Shore		Electric Motor
			Gasoline Motor
Depth Measured With	Secchi		

Water Level:	Normal
Flow:	NA
Matrix:	Fresh
Tide Stage:	
High Tide:	
Low Tide:	
Photos:	No
Meter ID:	Leia
Depth Gauge ID:	depth_gauge

Time Zone	Time	Total Depth (m)	Sample Depth (m)	DO (mg/L)	DO (%SAT)	Temp. (°C)	pH	Secchi Disk (m)	Sp COND (µmhos/cm)	Salinity (PPTth)
EST	1200	2	0.3	8.44	105.4	26.7	6.85	1.5	128.9	0.06
	1200		1.5	7.54	92.9	24.9	6.83		128.7	0.06

Biological Samples Collected: None

SBIO Visit ID: 86427 HA ID: RPS ID: Macrophyte ID: 12419 LIMS Sample ID Entered Into The Macrophyte Module:

Parameter Suite	Parameter Methods (LIMS Test Codes)	Type	Lot#	Expiration Date	pH Check
Microbiology					
Chlorophyll	CHLSUITE-W	ICE			
Physical/Aggregate Nutrients					
Filtered Nutrients	W-PO4-F Field Filtered 0.45 µm Filter	ICE	Syringe Lot#:2153759; Filter Lot#:17597810		
Acid Preserved Nutrients	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	ICE	H2SO4*	SA3013020	01/25/24 H2SO4 pH<2
Metals	W-ICPMS W-ICP W-HARD	ICE	HNO3**	NA2230040	09/01/23 HNO3 pH<2
Organics (LC)	W-E8321-DI W-E8321-MS				
Macroinvertebrates					
Organics (GC)	W-PSNP-TQ W-TR-SQ-R	Ice	*2.0 ml of H2SO4 Used Unless Noted Otherwise **2.0 ml of HNO3 Used Unless Noted Otherwise		
Molecular					
Periphyton					
Phytoplankton					
BOD					
DOC			SyringeLot#	FilterLot#	
Other(s)					
Field Comments:					
Comments on COC:					
Relinquish Date:	04/26/2023	Signature:			

LIMS EVENT ID: SW-DIST-2023-04-27-01

WIN Import ID: 40964

Enter Field Parameters, Verify Station ID In LIMS DMT: DM 5/5/2023

QC Station ID, Field Parameters In LIMS DMT: KT 05/18/2023

Save Field Sheets on Network: MM 7/6/2023 (Initials/Date)

Migrate Data to WIN: SM 6/26/2023 (Initials/Date)

(Initials/Date)

(Initials/Date)



Site Name:

Little Deer Lake Center

COUNTY:

Hillsborough

LAKE SIZE:

Small

WBID:

1478 G

MACROPHYTE ID:

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)										
5				95													
Local Watershed Erosion (select one): ☐ None ☒ Slight ☐ Moderate ☐ Heavy										Artificially Impounded							
Local Watershed NPS Pollution: ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy										☐ Yes ☒ No							
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)			
15		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			
11		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>See FS</u> Exp. Date: _____ Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☐ Low ☒ Normal ☐ High										Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____									
Meter Readings: Top: Depth (M) 0.3 Temp. (°C) 26.7 pH (SU) 6.85 D.O. (MG/L) 8.44 D.O. Sat. (%) 105.4 Cond. (UMHO/CM) 128.9 Salinity (PPT) .06 Mid-Depth: Depth (M) 1.5 Temp. (°C) 24.9 pH (SU) 6.83 D.O. (MG/L) 7.54 D.O. Sat. (%) 92.9 Cond. (UMHO/CM) 128.7 Salinity (PPT) .06 Bottom: _____										Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____									
Clarity: ☐ Clear ☒ Slightly Turbid ☐ Opaque ☐ Turbid										Color: ☐ Clear ☒ Tannic ☐ Green									
SECCHI (M) 1.5 Total Station Depth (M) 2.0										VOB ☐									
Meter ID: <u>Leica</u>										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 ☐ 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: SBIO 86427 Macro ID 12419 Phys-Chem entered into SBIO 4/26/23 KT.										Weather Conditions: <u>Sunny Hot ~ 90</u>									
SAMPLING TEAM: <u>Ben Paswater, Ken Turman</u>										SIGNATURE: <u>[Signature]</u>									
DATE: <u>4/26/2023</u>																			



Site Name:

Little Deer Lake Center

Waterbody:

County:

Signature:

Date:

required. *Genera that may require lab verification*

Lake units sampled (circle one group):

1, 4, 7, 10, 2, 5, 8, 11
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 (A-F)	3	6	9	12	Collected? (✓)	SPECIES (G-L)	Collected? (✓)
Acer rubrum						Gordonia lasianthus	
Alternanthera philoxeroides						Habenaria repens	
Andropogon sp.						Hymenachne amplexicaulis	
Azolla filiculoides (A. caroliniana)						Hydrilla verticillata	
Baccharis sp.						Hydrocotyle sp.	
Bacopa caroliniana						Hygrophila polysperma	
Bacopa monnieri						*Hypericum fasciculatum	
Bidens laevis						*Hypericum hypericoides	
Bidens mitis						*Hypericum myrtifolium	
Blechnum serrulatum						Ilex cassine	
Boehmeria cylindrica						Ipomoea aquatica	
Brasenia schreberi						Ipomoea sagittata	
Cabomba caroliniana						Itea virginica	
Casuarina equisetifolia						Juncus effusus	
Centella asiatica						*Juncus marginatus	
Cephalanthus occidentalis						*Juncus megacephalus	
Ceratophyllum demersum						Juncus repens	
Chara sp.						*Juncus scirpoides	
Cladium jamaicense						Lachnanthes caroliniana	
Cliftonia monophylla						Leersia hexandra	
Colocasia esculenta						Landoltia punctata (Spirodela punctata)	
*Commelina						Lemna sp.	
Crinum americanum						Leucothoe racemosa (Eubotrys racemosa)	
*Cyperus alternifolius (C. involucratus)						Limnium spongia	
Cyperus articulatus						Limnophila sessiliflora	
Cyperus haspan						Liquidambar styraciflua	
*Cyperus lecontei						*Ludwigia arcuata	
*Cyperus polystachyos						*Ludwigia leptocarpa	
*Cyperus odoratus						*Ludwigia linearis	
*Cyperus surinamensis						*Ludwigia octovalvis	
Cyrilla racemiflora						*Ludwigia peruviana	
Decodon verticillatus						*Ludwigia repens	
Diodia virginiana						*Ludwigia	
*Echinochloa crus-galli						Luziola fluitans (Hydrochloa carolinensis)	
*Echinochloa muricatum						Lyonia lucida	
Echinochloa walteri							
Eclipta prostrata (E. alba)							
Egeria densa							
Eichhornia crassipes							
*Eleocharis baldwinii							
*Eleocharis							
Eleocharis cellulosa							
Eleocharis equisetoides							
Eleocharis interstincta							
*Eriocaulon compressum							
*Eriocaulon decangulare							
Eupatorium capillifolium							
*Fuirena							
Fuirena scirpoidea							

3(D) Nymphaea + Melaleuca (6/9) (D) Nymphaea + Taxodium (D) D. Nymphaea

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

Field ID/WIN

G1SW0070



Site Name:

Little Deer Lake Center

1478G
Little Deer

DEER LAKE RD

82.4663
28.1649

82.4656
28.1648

82.4651
28.1645

82.4643
28.1647

82.4666
28.1643

82.4640
28.1643

82.4654
28.1639

82.4641
28.1637

82.4666
28.1638

82.4662
28.1634

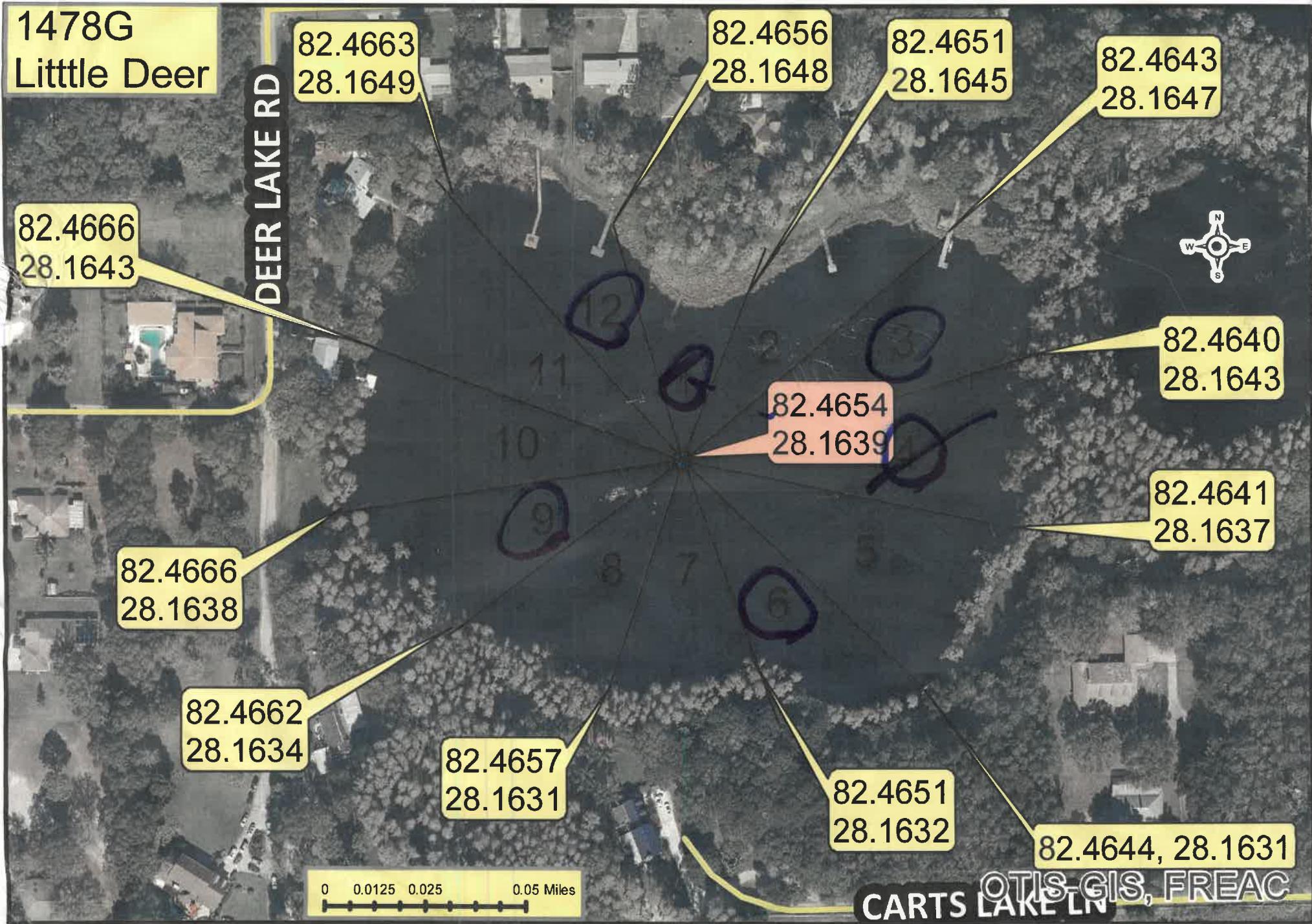
82.4657
28.1631

82.4651
28.1632

82.4644, 28.1631

0 0.0125 0.025 0.05 Miles

CARTS LAKE LN
OTIS GIS, FREAC





Site Name:

Little Deer Lake Center

LAKE NAME

Label

ECO-REGION:

SAMPLING LOCATION/DESCRIPTION:

COUNTY:

Hillsborough

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 17	Secchi >3 m Or VOB 20 19 18 17 16	3 2.6 2.2 1.8 1.4 15 14 13 12 11	1.0 0.9 0.8 0.7 0.6 10 9 8 7 6	0.5 0.4 0.3 0.2 0.1 5 4 3 2 1
Vegetation Quality 10	Diverse, expected native vegetation (emergent or submersed), less than 5% nuisance taxa 20 19 18 17 16	Mostly expected native plants, but moderate growths (6%-20% of lake) of nuisance macrophytes, or more than 50% of lake covered with plants 15 14 13 12 11	Large masses (21%-40%) of nuisance macrophytes (e.g., Hydrilla, hyacinth, cattail, etc.) or algal mats 10 9 8 7 6	Lake choked (>40%) with nuisance macrophytes (duckweed, hyacinth, etc.) or algal mats, or few plants present at all (e.g., plants removed) 5 4 3 2 1
Stormwater Inputs 8	Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation 20 19 18 17 16	Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place 15 14 13 12 11	Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place 10 9 8 7 6	Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place 5 4 3 2 1
Bottom Substrate Quality 13	Diverse mixture of sand, detritus, with small amounts of CPOM/mud/muck. SAV may be present 20 19 18 17 16	Mixture of sand or clay and detritus with higher % CPOM/mud/muck content. SAV may be present 15 14 13 12 11	Moderate layer of CPOM/mud/muck, or hardpacked sand only, or moderate algal growth (mats or Chara) on bottom 10 9 8 7 6	Thick deposits of CPOM, or fine detritus and anaerobic muck/mud/silt, or algal growth or nuisance plants (Hydrilla) cover bottom 5 4 3 2 1
Lakeside Adverse Human Alterations 15	Very few man-made structures, roads, or other disturbance adjacent to lake (<10%) 20 19 18 17 16	Moderate disturbance visible (structures, roads or other), 10%-49% lakeside affected 15 14 13 12 11	Many structures, roads or other human disturbance visible (50%-70%) lakeside affected 10 9 8 7 6	Highly developed or disturbed (>70% of lakeside affected) 5 4 3 2 1
Upland Buffer Zone 11	Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer 20 19 18 17 16	89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer 15 14 13 12 11	50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer 10 9 8 7 6	< 29% of shoreline with >18m buffer 5 4 3 2 1
Adverse Watershed Land Use 12	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, <u>Low Density Residential</u> , 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

80

COMMENTS:

ANALYSIS DATE:

4/20/2023

ANALYST:

Ben Paswater

SIGNATURE:

Ben Paswater