FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified? Yes / (No)

WIN Station Name: LAKE HOOKER **Date:** 5-20-19 (mm/dd/yyyy)

WIN/ Field ID: G2SW0069 **WBID:** 1547D **Latitude:** _____ (Decimal Degrees)

County: HILLS **ORG ID:** __ 21FLTPA **Longitude:** _____ (Decimal Degrees)

Receiving Body of Water: _____ **RQ-2019-** 05-06-16

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
JUAN ASHTON	✓		✓		
BEN PASHAYAN		✓	✓	✓	✓
SARA MEYER	✓				

Sampling Equipment
- [x] Sample Container [ ] Van Dorn [ ] Pole
- [ ] Carboy [ ] Syringe
- [ ] Dipper [ ] Other _____

Depth Measured with: Secchi
Equipment ID ____Secchi #1

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

Water Level: Dry/ Pooled/ (Low) / Normal / High / Flooded **Meter ID#** CHEM 7 **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 (PPTh)	Sp COND (µmhos/cm)	Temp. (C°)
(EST)	1050	0.7	0.3	0.2	7.59	97.5	7.45	0.09	186.7	28.1

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

SBIO ID Numbers: SBIO-ID: 79834 HA-ID: 16074 RPS-ID: ——— Macrophyte-ID: 11386 LIMS#: 2088017

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	[x] W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	[x] Ice [x] H_2SO_4			[ ] <2
Metals	[ ] W-ICPMS [ ] W-ICP	[ ] Ice [ ] HNO_3			[ ] <2
Filtered Nutrients	[x] W-PO4-F [x] Field Filtered 0.45 µm Filter	[x] Ice			
Chlorophyll	[x] CHLSUITE-W	[x] Ice			
Physical/Aggregate (Fresh)	[x] Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	[x] 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				

Notes:

Field ID/WIN G2SW0069

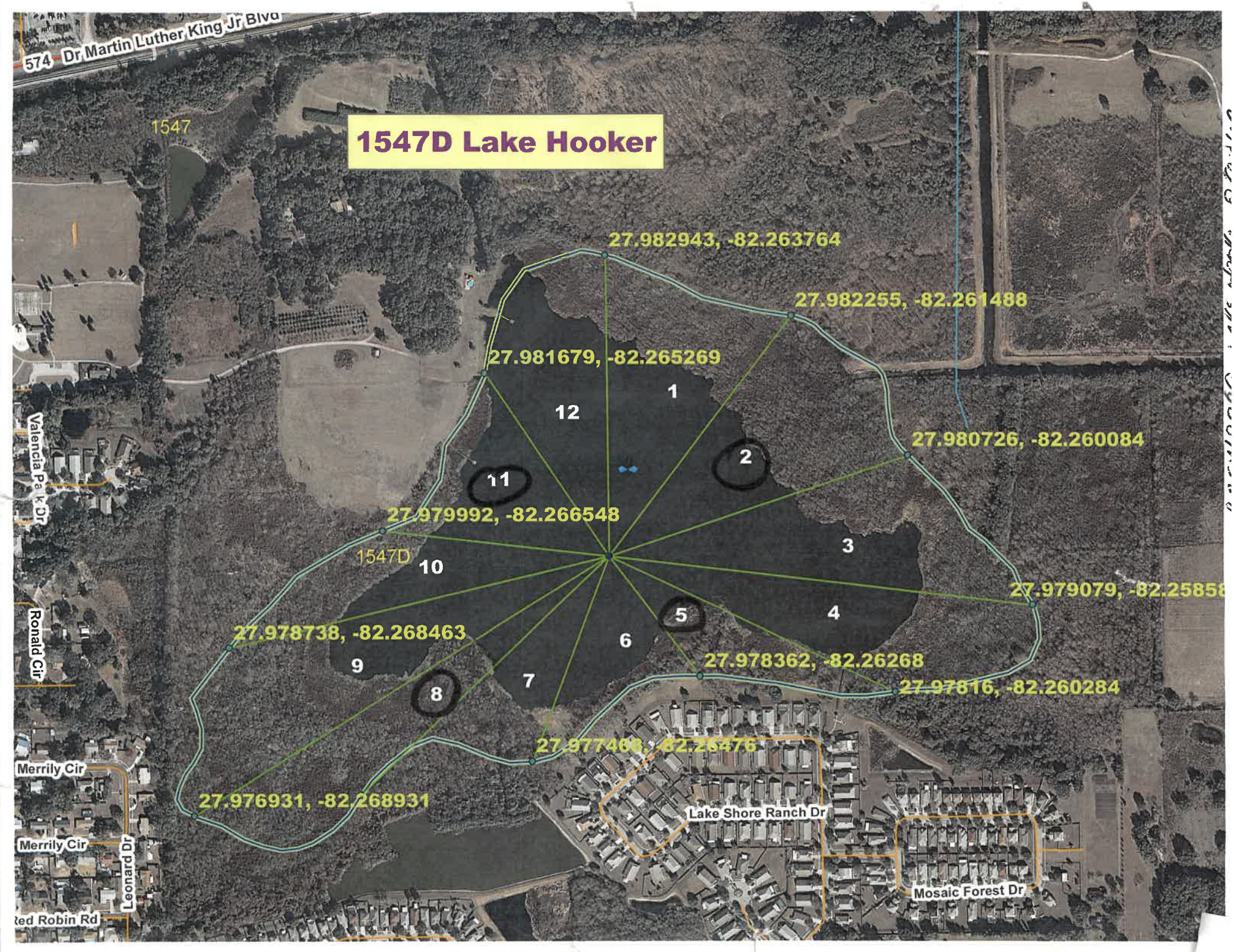
Site Name: Lake Hooker @ Center

Signature: _____ **Date:** 5-20-19

LIMS EVENT ID: 2019-05-22-01 WIN Import ID: 13805

Enter Field Parameters, Verify Station ID In LIMS DMT: SM 06/19/2019 QC Station ID, Field Parameters In LIMS DMT: SM 08/06/2019

Scan/Save Field Sheets _____ (Initials/Date) Migrate Data to WIN: SM 08/06/2019 (Initials/Date) Verify Data In WIN: SM 09/05/2019 (Initials/Date)


1547D Lake Hooker
574 Dr Martin Luther King Jr Blvd
1547
27.982943, -82.263764
27.982255, -82.261488
27.981679, -82.265269
27.980726, -82.260084
27.979992, -82.266548
1547D
27.979079, -82.25858
27.978738, -82.268463
27.978362, -82.26268
27.97816, -82.260284
27.977466, -82.26476
27.976931, -82.268931
1
2
3
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5
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9
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12
Valencia Park Dr
Ronald Cir
Merrily Cir
Merrily Cir
Leonard Dr
Red Robin Rd
Lake Shore Ranch Dr
Mosaic Forest Dr

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Field ID/WIN G2SW0069

Site Name: Lake Hooker @ Center

Waterbody: | County: Hills

Signature: [signature] | Date: 5-20-19

equired. *Genera that may require lab verification*

RQ 2019-05-06-14

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

ıreal extent) for each unit. Use "D" to denote dominant taxon, or "C" for the 2 co-dominant taxa.

SPECIES (A-F)	2	5	8	11	Collected? (√)
Acer rubrum	✓	✓	✓	✓	
Alternanthera philoxeroides	✓	✓	✓	✓	
Andropogon sp.					
Azolla filiculoides (A. caroliniana)					
Baccharis sp.					
Bacopa caroliniana					
Bacopa monnieri					
Bidens laevis	✓	✓	✓		
Bidens mitis					
Blechnum serrulatum					
Boehmeria cylindrica					
Brasenia schreberi					
Cabomba caroliniana					
Casuarina equisitifolia					
Centella asiatica					
Cephalanthus occidentalis					
Ceratophyllum demersum					
Chara sp.					
Cladium jamaicense					
Cliftonia monophylla					
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)					
Egeria densa					
Eichhornia crassipes					
*Eleocharis baldwinii		✓	✓	✓	
*Eleocharis					
Eleocharis cellulosa					
Eleocharis equisetoides					
Eleocharis interstincta					
*Eriocaulon compressum					
*Eriocaulon decangulare					
Eupatorium capillifolium					
*Fuirena					
Fuirena scirpoidea					

SPECIES (G-L)	2	5	8	11	Collected? (√)
Gordonia lasianthus					
Habenaria repens					
Hymenachne amplexicaulis					
Hydrilla verticillata					
Hydrocotyle sp.	✓	✓	✓	✓	
Hygrophila polysperma					
*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 leptocarpa		✓			
*Ludwigia linearis					
*Ludwigia octovalvis					
***Ludwigia peruviana**		C	✓	C	
*Ludwigia repens					
*Ludwigia 3 piploides	✓			✓	✓
Luziola fluitans (Hydrochloa carolinensis)					
Lyonia lucida					
Cilas ? nitidum		✓			✓
Cyperus odoratus (immature)		✓			✓
FERN = Thelypteris interupta	✓	✓			✓
Rumex		✓	✓	✓	✓
			✓	✓	

Site: Lake Hooker | Date: 05/20/2019

SPECIES (M-P)	Z	S	B	U	Collected? (√)	SPECIES (R-Z)	Z	S	B	U	Collected? (√)
Magnolia virginiana						*Rhexia					
Mayaca fluviatilis						*Rhynchospora corniculata					
Melaleuca quinquenervia						*Rhynchospora inundata					
Micranthemum glomeratum						Rhynochospora 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	D	E	D	E	
*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 (softsteam)					
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~~ associate	✓				
Proserpinaca pectinata						Xyris sp.					
						Zizania aquatica					
						Zizaniopsis milacea					

Field ID/WIN G2SW0069

D SHEET 5-20-19

Site Name: Lake Hooker @ Center

LATITUDE: _____

LONGITUDE: _____

SAMPLING AGENCY: FDEP SWRCC

TIME: 1050 BQ 2019-05-06-16

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: _____

Land Use Source & Year:

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

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

Artificially Impounded ☐ Yes ☐ No

STORMWATER INPUTS 13	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 15	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 16	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 # _____ Exp. Date: _____

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	28.1	7.45	7.59	97.5	186.7	0.09
Mid-Depth:							
Bottom :							

Meter ID: Cheury SECCHI 0.2

Clarity: ☐ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid

Color: ☐ Clear ☐ Tannic ☐ Green

SECCHI (M) 0.2

VOB ☐

Total Station Depth (M) 0.7

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:

Weather Conditions :

SUNNY,

SAMPLING TEAM: S. ASHTON, B. ABSHIER, S. MEYER

SIGNATURE:

DATE: 5-20-19

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

Field ID/WIN G2SW0069

Site Name: Lake Hooker @ Center

STORET STATION NUMBER: SEE STICKER UPPER RIGHT	LAKE SIZE:	LAKE NAME
ECO-REGION:	COUNTY:	SAMPLING LOCATION/DESCR

PARAMETER		Optimal	Suboptimal	Marginal	Poor
HYDROLOGY		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 ☐
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 ☒
Secchi	2	Secchi >3 m / Or VOB: 20 19 18 17 16	Secchi(m): 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	6	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	13	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	3	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 Alternations	15	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	16	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	14	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	69	COMMENTS:

ANALYSIS DATE:	ANALYST:	SIGNATURE:
05/20/2019	B Paswater, J Ashton, S Meyer	Sarah Meyer