

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Boldly "X" this box if there are qualified data on this page.

Meter ID:

PRODS

RQ-

2019-05-20-12

Project:

LVI Red Bay

Notes: (1) Always wait for meter to stabilize before recording any readings.

(2) Report all digits displayed. Do not round before reporting measurements. (See special instructions for depth).

(3) For Calibrations, record calibrated meter reading. Do not record initial meter reading before calibration.

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification

6/2019

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp °C	Baro- meter mmHg	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	J. Parnish	6/18/19	725	23.8	757.7	8.4	8.4	99.7	—	—	P/F	L/F
ICV	J	6/18/19	726	23.8	757.7	8.4	8.42	99.7	—	—	P/F	L/F
CCV	C. Ruben	↓	756	23.4	756	8.5	8.52	100.2	—	—	P/F	L/F
CCV											P/F	L/F

DO Acceptance criteria from Table ± 0.3 mg/L.

Rapid-Pulse Sensors: DO Gain Range 0.7 to 1.4; DO Charge Range 25-75.

Optical: DO gain range 0.85 to 1.15 (Pro DSS 0.75 to 1.50); DO charge N/A. Steady-state & Galvanic Sensors: DO Gain & Charge N/A.

Spec. Cond. FT 1200	Name	Date	Time CT-ET	Lot #	Expir. Date	Standard μ hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	J. Parnish	6/18/19	727	190430A	5/20	1000	1000	P/F	L/F
ICV	J	6/18/19	728	147430	12/19	147	152	P/F	L/F
CCV	C. Ruben	↓	1510	190430A	5/20	1000	1000	P/F	L/F
CCV								P/F	L/F

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Temp °C	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	J. Parnish	6/18/19	730	2811561	11/20	7.00	23.8	7.01	54.9	P/F	L/F
Calibr.	J	6/18/19	731	2904600	3/21	4.00	24.6	3.98	125.9	P/F	L/F
Calibr.	J	6/18/19	735	2901851	7/20	10.00	24.5	10.01	227.2	P/F	L/F
ICV	J	6/18/19	737	2904600	3/21	4.00	24.5	4.06	121.6	P/F	L/F
CCV	C. Ruben	6/18/19	536	2911001	11/20	7.00	24.4	7.13	59.2	P/F	L/F
CCV										P/F	L/F

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 ± 50 ;

mV pH 4 Range $+180 \pm 50$;

mV pH 10 Range -180 ± 50 ;

If mV are recorded: slope from 7 to 10 _____, slope from 4 to 7 _____ (both must be between 165 and 180 mV)

Does meter have a depth sensor that will be used to measure total depth & sample depth? YES / NO / NA (not surf. water project)

If YES, complete daily Calibr. & ICV below and list date of last quarterly depth verification: _____

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: _____; Date of last verification: _____

Depth Sensor (Daily Calibration & ICV)	Name	Date	Time CT-ET	Calibrated Value (0.00 or Offset), meters	ICV Value, meters	Pass/ Fail	Lab/ Field
Pressure mode in air	J. Parnish	6/18/19	736	0.00	0.02	P/F	L/F

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater.

COMMENTS:

(Initials/Date)

Florida Department of Environmental Protection

Central Laboratory Submittal Form

Lake LVI's NE

last revised Jan 25, 2018

Customer: NE-DIST

Requester: Jeremy M. ParrishField Report Prepared By: Jeremy Parrish

Project ID: SMP

Collected By: Jeremy Parrish / Cheyenne BakerSampling Agency: FDEP NE-ROC

Loc: WIN ID/Field ID:  G2NE1198	☐ Comp ☒ Grab	Collection (comp begin or grab) Date <u>6/18/19</u> Time <u>1305</u>	Eastern Central	Composite end Date _____ Time _____	Bottle Group(s) (See pg 2)
Field: Paradise Lake Center	Matrix (type, e.g., Salt, Fresh, etc) <u>Fresh</u>		Diss. Oxygen <u>7.5</u>	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L)
WIN	Temp (C) <u>29.2</u>	pH <u>7.84</u>	Sample Depth <u>0.3</u>	☐ ft ☒ m	Sp. Conductance (umho/cm) <u>131</u>
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt) <u>0.06</u>	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		

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		

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		

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: <u>Jeremy Parrish</u>	Date/Time: <u>6/18/19 1500</u>	Shipping Method: <u>Fedex</u>	Number of Coolers Shipped: <u>1</u>	Received By: _____	Date/Time: _____
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Group: A	Bottle Type:	P-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	0
ALKALINITY							
TURBIDITY							
W-CL-IC							
W-COLOR							
W-F							
W-SO4-IC							
W-TDS							
W-TSS							
Group: A	Bottle Type:	BP-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	0
CHLSUITE-W							
Group: A	Bottle Type:	P-500ML	# of Bottles: 2	Preservative:	HNO3	Enter Number of Bottles Sent to Lab	0
W-ICP							
W-ICPMS							
Group: A	Bottle Type:	P-500ML	# of Bottles: 2	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	0
W-NH3							
W-NO2NO3							
W-S-A-TP							
W-TKN							
W-TOC							
Group: A	Bottle Type:	P-125ML	# of Bottles: 2	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	0
W-PO4-F							
Group: B	Bottle Type:	P-1L	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
ALKALINITY							
TURBIDITY							
W-CL-IC							
W-COLOR							
W-F							
W-SO4-IC							
W-TDS							
W-TSS							
Group: B	Bottle Type:	BP-1L	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
CHLSUITE-W							

Group: B	Bottle Type:	P-500ML	# of Bottles: 4	Preservative: ICE And H2SO4	Enter Number of Bottles Sent to Lab	1
	W-NH3					
	W-NO2NO3					
	W-S-A-TP					
	W-TKN					
	W-TOC					
Group: B	Bottle Type:	P-125ML	# of Bottles: 4	Preservative: FILTER-ICE	Enter Number of Bottles Sent to Lab	1
	W-PO4-F					
Group: C	Bottle Type:	P-1L	# of Bottles: 1	Preservative: ICE	Enter Number of Bottles Sent to Lab	0
	ALKALINITY					
	TURBIDITY					
	W-CL-IC					
	W-COLOR					
	W-F					
	W-SO4-IC					
	W-TDS					
	W-TSS					
Group: C	Bottle Type:	P-500ML	# of Bottles: 1	Preservative: HNO3	Enter Number of Bottles Sent to Lab	0
	W-ICP					
	W-ICPMS					
Group: C	Bottle Type:	P-500ML	# of Bottles: 1	Preservative: ICE And H2SO4	Enter Number of Bottles Sent to Lab	0
	W-NH3					
	W-NO2NO3					
	W-S-A-TP					
	W-TKN					
	W-TOC					
Group: C	Bottle Type:	P-125ML	# of Bottles: 1	Preservative: FILTER-ICE	Enter Number of Bottles Sent to Lab	0
	W-PO4-F					

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Paradise Lake</u>	County: <u>Clay Co.</u>	Date: <u>6/18/19</u>									
Analyst: <u>Jeremy Farnum</u>	Signature: _____	STORET: <u>62NE1198</u>									
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 <u>2, 5, 8, 11</u> 3, 6, 9, 12									
SPECIES	2	5	8	11	Collected? (✓)	SPECIES	2	5	8	11	Collected? (✓)
Acer rubrum						Habenaria repens					
Alternanthera philoxeroides						Hydrilla verticillata					
Andropogon sp.						Hydrocotyle sp.	P		P		
Azolla filiculoides (A. caroliniana)						Hygrophila polysperma					
Baccharis sp.						*Hypericum fasciculatum					
Bacopa caroliniana			P			*Hypericum hypericoides					
Bacopa monnieri						*Hypericum myrtifolium					
Bidens laevis						Ilex cassine					
Bidens mitis						Ipomoea aquatica					
Blechnum serrulatum						Ipomoea sagittata					
Boehmeria cylindrica						Itea virginica					
Brasenia schreberi						Juncus effusus					
Cabomba caroliniana						*Juncus marginatus	P	P	P	P	
Casuarina equisetifolia						*Juncus megacephalus	P	P	P		
Centella asiatica						Juncus repens					
Cephalanthus occidentalis			P			*Juncus scirpoides	P	P		P	
Ceratophyllum demersum						Lachnanthes caroliniana					
Chara sp.	P	C	P	P		Leersia hexandra	D	C	D	D	
Cladium jamaicense						Landoltia punctata (Spirodela punctata)					
Cliftonia monophylla						Lemna sp.					
Colocasia esculenta						Leucothoe racemosa (Eubotrys racemosa)					
*Commelina						Limnium spongia					
Crinum americanum						Limnophila sessiliflora					
*Cyperus alternifolius (C. involucratus)						Liquidambar styraciflua					
Cyperus articulatus						*Ludwigia arcuata					
Cyperus haspan						*Ludwigia leptocarpa	P			P	
*Cyperus lecontei	P	P	P	P		*Ludwigia linearis					
*Cyperus polystachyos						*Ludwigia octovalvis					
*Cyperus odoratus						*Ludwigia peruviana	P	P	P	P	
*Cyperus surinamensis						*Ludwigia repens					
Cyrilla racemiflora						*Ludwigia					
Decodon verticillatus						Luziola fluitans (Hydrochloa carolinensis)					
Diodia virginiana						Lyonia lucida					
*Echinochloa crus-galli						Magnolia virginiana					
*Echinochloa muricatum						Mayaca fluviatilis					
Echinochloa walteri						Melaleuca quinquenervia					
Eclipta prostrata (E. alba)						Micranthemum glomeratum					
Egeria densa						Micranthemum umbrosum					
Eichhornia crassipes						Mikania scandens					
*Eleocharis baldwinii						Mimosa pigra					
*Eleocharis						Myrica cerifera	P				
Eleocharis cellulosa											
Eleocharis equisetoides											
Eleocharis interstincta											
*Eriocaulon compressum											
*Eriocaulon decangulare											
Eupatorium capillifolium	P										
*Fuirena											
Fuirena scirpoidea	P	P	P	P							
Gordonia lasianthus											

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: <u>Paradise Lake</u>					Date: <u>6/18/19</u>						
SPECIES	2	5	8	11	Collected? (✓)	SPECIES	2	5	8	11	Collected? (✓)
Myriophyllum aquaticum						Salix caroliniana		P	P		
*Myriophyllum heterophyllum						Salvinia minima					
*Myriophyllum laxum						Sambucus canadensis					
*Myriophyllum pinnatum						Sapium sebiferum					
Myriophyllum spicatum						Saururus cernuus					
*Najas filifolia						Schinus terebinthifolius					
*Najas guadalupensis						*Schoenoplectus californicus					
*Najas minor						*Schoenoplectus pungens					
Nelumbo lutea						*Schoenoplectus tabernaemontani (Scirpus validus)					
Nitella spp.						Scirpus cubensis (Oxycaryon cubense)					
Nuphar sp.						Scirpus cyperinus			P		
Nymphaea odorata						*Sesbania					
Nymphoides aquatica						Solidago sp.					
Nyssa sylvatica var. biflora						Sparganium americanum					
Orontium aquaticum						Spartina bakeri					
Osmunda cinnamomea						Spirodela polyrhiza					
Osmunda regalis						Taxodium sp.					
Panicum hemitomon	P	P	P	P		Thalia geniculata					
Panicum repens	P	P	P	P		Thelypteris palustris					
Paspalidium geminatum — ✓	P					Triadenum virginicum					
*Paspalum repens						Typha sp.		P	P	P	
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	P	P	P	P		*Utricularia purpurea					
Pistia stratioides						*Utricularia cornuta					
Pluchea sp.						*Utricularia radiata					
*Polygonum glabrum (densiflorum)						Vallisneria americana					
*Polygonum hydropiperoides						*Websteria confervoides					
*Polygonum punctatum						Wedelia trilobata (Sphagneticola trilobata)					
*Polygonum						Wolffiella spp.					
Pontederia cordata		P				Woodwardia virginica					
*Potamogeton diversifolius						Xyris sp.			P	P	
*Potamogeton illinoensis						Zizania aquatica					
*Potamogeton pusillus						Zizaniopsis milacea					
*Potamogeton pectinatus (Stuckenia pectinatus)											
Proserpinaca pectinata											
*Rhexia virginiana	P			P							
*Rhynchospora corniculata											
*Rhynchospora inundata											
Rhynchospora tracyi											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia											
Sagittaria latifolia											

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: 29.78733
 COUNTY: Clay Co. STORET #: 62 NE1178 LONGITUDE: 82.04709
 DATE: 6/18/19 TIME: 1305 SAMPLING AGENCY: _____
 SITE NAME: Paradise Lake Center WBID: 2509A
 FIELD ID/NAME: _____ LAKE SIZE: _____ RQ: 201605-20172

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													
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										
<u>15</u>		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)										
<u>11</u>		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										
<u>15</u>		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 _____ 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: <u>0.3</u> <u>29.2</u> <u>7.84</u> <u>7.50</u> <u>98.0</u> <u>131</u> <u>0.06</u> Mid-Depth: _____ Bottom: <u>7.9</u> _____								Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☒ Clear ☐ Tannic ☐ Green SECCHI (M) <u>2.5</u> Total Station Depth (M) <u>7.9</u> VOB ☐							
Sediment Type: (may check more than one) ☒ 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: <u>Chara mats on bottom</u>															
Weather Conditions: <u>Lake residents Raking grass removal</u>															
SAMPLING TEAM: <u>Jeremy Parrish Chevarro Rubin</u>								SIGNATURE: <u>Jeremy Parrish</u>				DATE: <u>6/18/19</u>			

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

STORET STATION NUMBER: <i>62 NE 1198</i>	DATE (M/D/Y) <i>6/18/19</i>	LAKE NAME <i>Paradise Lake center</i>		FIELD ID / NAME:		
ECO-REGION:	COUNTY: <i>Clay</i>	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		
Secchi	Secchi >3 m Or VOB	Secchi(m)		Poor		
<i>14</i>	20 19 18 17 16	3 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		
	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>13</i>	Mostly expected native plants, but moderate growths (6%-20% of lake) of nuisance macrophytes, or more than 50% of lake covered with plants <i>13</i>		Large masses (21%-40%) of nuisance macrophytes (e.g., Hydrilla, hyacinth, cattail, etc.) or algal mats <i>13</i>		
	20 19 18 17 16	15 14 13 12 11		10 9 8 7 6		
	5 4 3 2 1	5 4 3 2 1		5 4 3 2 1		
Stormwater Inputs	Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation <i>15</i>	Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place <i>15</i>		Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place <i>15</i>		
	20 19 18 17 16	15 14 13 12 11		10 9 8 7 6		
	5 4 3 2 1	5 4 3 2 1		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>16</i>	Mixture of sand or clay and detritus with higher % CPOM/mud/muck content. SAV may be present <i>16</i>		Moderate layer of CPOM/mud/muck, or hardpacked sand only, or moderate algal growth (mats or Chara) on bottom <i>16</i>		
	20 19 18 17 16	15 14 13 12 11		10 9 8 7 6		
	5 4 3 2 1	5 4 3 2 1		5 4 3 2 1		
Lakeside Adverse Human Alterations	Very few man-made structures, roads, or other disturbance adjacent to lake (<10%) <i>11</i>	Moderate disturbance visible (structures, roads or other), 10%-49% lakeside affected <i>11</i>		Many structures, roads or other human disturbance visible (50%-70%) lakeside affected <i>11</i>		
	20 19 18 17 16	15 14 13 12 11		10 9 8 7 6		
	5 4 3 2 1	5 4 3 2 1		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>15</i>	89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer <i>15</i>		50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer <i>15</i>		
	20 19 18 17 16	15 14 13 12 11		10 9 8 7 6		
	5 4 3 2 1	5 4 3 2 1		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>14</i>					
	20 19 18 17 16	15 14 13 12 11		10 9 8 7 6		
	5 4 3 2 1	5 4 3 2 1		5 4 3 2 1		
TOTAL SCORE	<i>96</i>	COMMENTS:				

ANALYSIS DATE: <i>6/18/19</i>	ANALYST: <i>Jerry Cam</i>	SIGNATURE: <i>Jerry Cam</i>
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