



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

March 2017

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Data Qualified?
Yes / No

Location/STORET Station Name: LAKE UMATILLA @ CENTER

Date: 8/15/2017
(mm/dd/yyyy)

STORET # G1CE0067

WBID: 2806A

Latitude: 28.92033

(Decimal Degrees)

County: LAKE RQ - 2017-08-14-50

ORG ID: 21 FL CEN

Longitude: -81.66214

(Decimal Degrees)

Receiving Body of Water:

Field ID: G1CE0067

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Duplicate Collection	Blank Collection
TERRY RIORDAN		☒	☒	☒	☒	☒	☒	☒
NATALIE AYALA		☒	☒	☒	☒	☒	☒	☒

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☒ Syringe	
☐ Dipper	☐ Other	
Equipment ID		

Collection Method		
☐ Wading	☐ Via Boat	
☐ From Shore	☐ Canoe/Kayak	
☐ Other (note below)	☐ Electric Motor	
	☒ Gasoline Motor	

Water Level: Dry / Pooled / Low / <u>Normal</u> / High / Flooded	Matrix: <u>Fresh</u> / Marine / DI
Meter ID# BETTY/67	Photos: <u>Yes</u> / No
	Tide Falling: Yes / No / <u>NA</u>

Field Sample

Time Zone	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (ppt)	Secchi Disk (m)	Sp COND (µmhos/cm)	Temp. (C°)
<u>EST</u>	1400	0.3	3.9	8.4	116	8.6	0.1	1.6	211	32.2
CEN		3.4		8.1	108	8.3	0.1		211	31.4

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

SBIO ID Numbers: SBIO-ID: 77935 RPS-ID: N/A Macrophyte-ID: 10723 LIMS#: 1921707

Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☐ H2SO4	below	4/18	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice			
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC	☐ Formalin			
Periphyton	☐ ALGAE-ID	☐ Ice			
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci ☐ qPCR	☐ Ice			
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Ice ☐ Other			

Contains
1:1
Sulfuric Acid
SA-7093010
EXP: 04/03/18
Warning!
See SDS

Adhesive Sticker(s) Here
(If Available)

QA/QC Sample Information

Duplicate

Time Zone: EST CEN		Sample Depth (m): <u>0.3</u>		Field ID: <u>G1CE 0067_DUP</u>	
Time: <u>1401</u>		Total Depth (m): <u>3.9</u>			
Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H2SO4	<u>below</u>	<u>4/18</u>	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice	Contains 1:1 Sulfuric Acid SA-7093010 EXP: 04/03/18 Warning! See SDS		
Chlorophyll	☐ CHLSUITE-W	☐ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CL-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci ☐ qPCR	☐ Ice			
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA				
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W-SUC-AA-R				

Date: 08/15/2017

Time:

G1CE0067 DUP

Field ID

STORET

RQ-2017-08-14-50

G1CE0067

Blank

Time Zone: EST CEN		Time: <u>1414</u>		Field ID: <u>BLANK</u>		Location: <u>LAKE UMATILLA</u>	
☒ Field Blank ☐ Equipment Blank ☐ Field Cleaned Equipment Blank		Equipment ID					
Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check		
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H2SO4	<u>see below</u>	<u>4/18</u>	☐ <2	Contains 1:1 Sulfuric Acid SA-7093010 EXP: 04/03/18 Warning! See SDS	
Metals	☒ W-ICPMS ☒ W-ICP <u>NA</u>	☐ Ice ☐ HNO3			☐ <2		
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice					
Chlorophyll	☐ CHLSUITE-W	☐ Ice					
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CL-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice					
Physical/Aggregate (Marine)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice					
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci ☐ qPCR						
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA						
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W-SUC-AA-R						

Date: 08/15/2017

Time:

FieldBlank

Field ID

STORET

RQ-2017-08-14-50

fieldblank

Notes:

Ramp @ Gurrant Park
28.91734 -81.66653

Date: 08/15/2017

Time:

G1CE0067

Field ID

STORET

RQ-2017-08-14-50

G1CE0067

Signature:

Date:

8/15/17

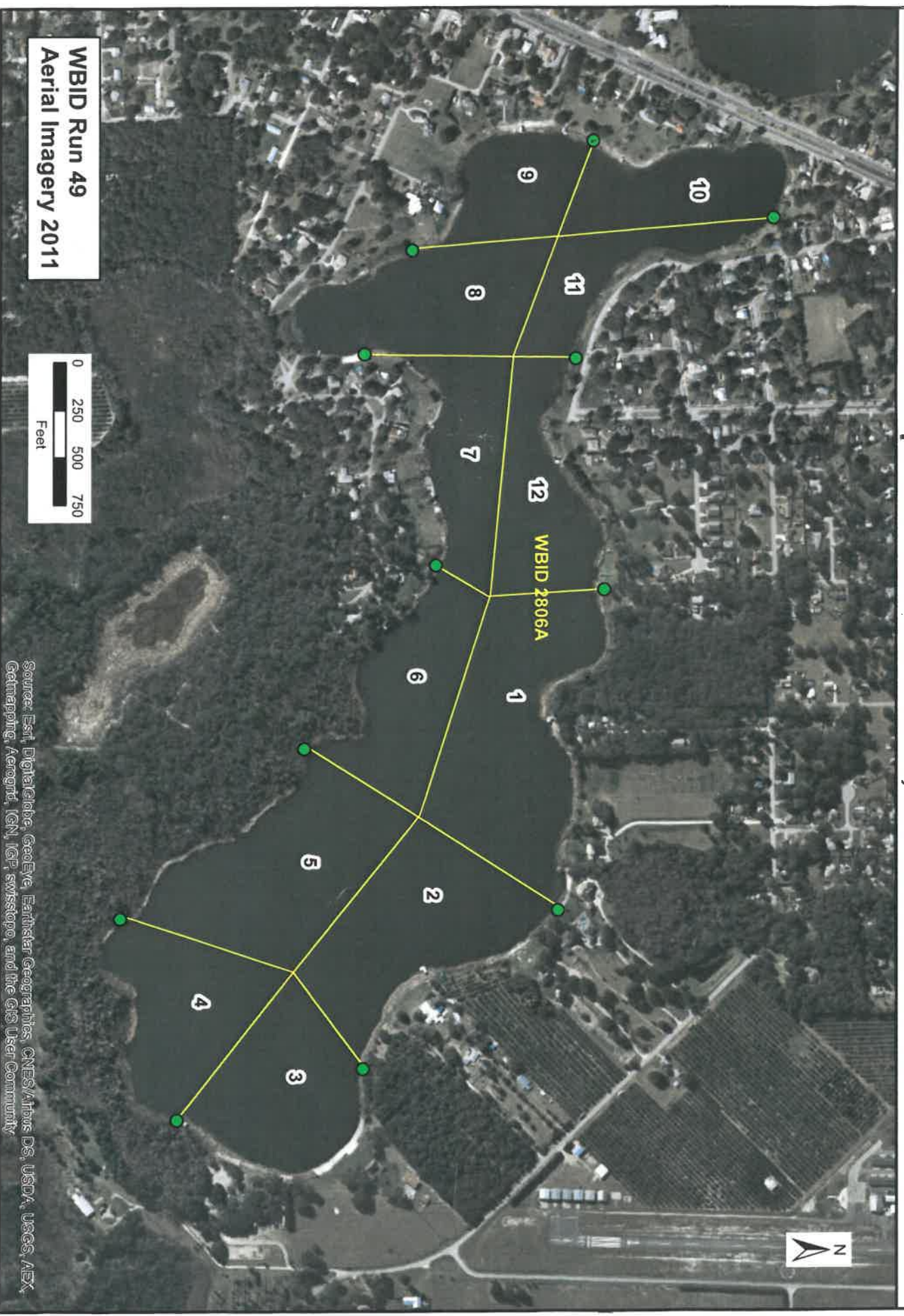
Field Parameters Entered into LIMS: NA 9/6/17
(Initials/Date)

Field Parameters QC in LIMS: 72 9/27/17
(Initials/Date)

Date Migrated to STORET: _____
(Initials/Date)

Field Sheets Scanned/Saved: _____
(Initials/Date)

LVI Map for LAKE UMATILLA, WBID 2806A



WBID Run 49
Aerial Imagery 2011

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroX, Getmapping, Aergrid, IGN, IGP, swisstopo, and the GIS User Community

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: 77935 MACROPHYTE ID: 10723
COUNTY: LAKE STORET #: GICE0067
DATE: 8-15-17 TIME: 1400
SITE NAME: LAKE Umatilla
FIELD ID/NAME: GICE0067

LATITUDE: 28.92033
LONGITUDE: -81.66214
SAMPLING AGENCY: 21 FL CEN
WBID: 3806A
LAKE SIZE: 631,067 m² RQ: 2017-08-14-50

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) : Forest/Natural <u>10</u> Silviculture <u>0</u> Field/Pasture <u>20</u> Agricultural <u>0</u> Residential <u>70</u> Commercial <u>0</u> Industrial <u>0</u> Other (Specify) <u>0</u>					LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI: <u>1.14</u>																
Local Watershed Erosion (select one) : ☐ None ☒ Slight ☐ Moderate ☐ Heavy					Artificially Impounded ☐ Yes ☒ No					Land Use Source & Year: <u>2017</u>											
Local Watershed NPS Pollution : ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy																					
STORMWATER INPUTS <u>4</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>6</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>6</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 # <u>SA-7093010</u> Exp. Date: <u>4/3/18</u> Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☐ Low ☒ Normal ☐ High										Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____									
Meter Readings: Top: Depth (M) <u>0.3</u> Temp. (°C) <u>32.2</u> pH (SU) <u>8.6</u> D.O. (MG/L) <u>8.4</u> D.O. Sat. (%) <u>116</u> Cond. (UMHO/CM) <u>211</u> Salinity (PPT) <u>0.1</u> Mid-Depth: _____ Bottom: <u>3.4</u> <u>31.4</u> <u>8.3</u> <u>8.1</u> <u>108</u> <u>211</u> <u>0.1</u>										Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____									
Meter ID: _____										Clarity: ☐ Clear ☒ Opaque ☐ 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): _____										SECCHI (M) <u>1.6</u> Total Station Depth (M) <u>3.9</u> VOB ☐									
Sediment Odors: ☒ Normal ☐ Other (Specify): _____ ☐ Anaerobic																			
Biological Communities: LVI Conducted? ☒ Yes ☐ No Phytoplankton Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot #: <u>N/A</u> Exp Date: <u>N/A</u> 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: <u>Overcast, storms passing through.</u>																			
SAMPLING TEAM: <u>Natalie Ayala, Terry Riordan</u>										SIGNATURE: <u>[Signature]</u>					DATE: <u>8/15/17</u>				

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: Lake Umbagog

Date: 8/15/07

SPECIES	1	4	7	10	Collected? (✓)	SPECIES	1	4	7	10	Collected? (✓)
Myriophyllum aquaticum						Salix caroliniana		/		/	
*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					
Nymphaea mexicana <i>pinkwater</i>	/				*	*Sesbania					
Nymphaea odorata						Solidago sp.					
Nymphoides aquatica						Sparganium americanum					
Nyssa sylvatica var. biflora		/				Spartina bakeri					
Orontium aquaticum						Spirodela polyrhiza					
Osmunda cinnamomea		/				Taxodium sp.		/	/	/	
Osmunda regalis						Thalia geniculata					
Panicum hemitomon	/	/	/			Thelypteris interrupta					
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 foliosa					
Pennisetum purpureum						*Utricularia inflata					
Phragmites australis						*Utricularia purpurea					
Pinus elliotii						*Utricularia radiata					
Pistia stratioides						*Utricularia resupinata					
Pluchea sp.						Vallisneria americana					
*Polygonum glabrum (densiflorum)						Vitis sp.	/	/			
Polygonum hirsutum						*Websteria confervoides					
*Polygonum hydropiperoides						Wedelia trilobata (Sphagneticola trilobata)					
*Polygonum punctatum						Wolffiella spp.					
*Polygonum						Woodwardia virginica	/	/			
Pontederia cordata	/	/	/	/		Xyris sp.	/	/			
*Potamogeton diversifolius						Zizania aquatica					
*Potamogeton illinoensis						Zizaniopsis milacea					
*Potamogeton pusillus						Camphor-Cinnamomum camphora	/				
*Potamogeton pectinatus (Stuckenia pectinatus)						Virginia Creeper - Parthenocarpus q...	/	/		/	
Proserpinaca pectinata						Phyla nodiflora					✓
*Rhexia						Erechtites	/	/			
*Rhynchospora corniculata						umbellulose flowers	/	/			
*Rhynchospora inundata						Pluchea	/	/			
Rhynchospora nitens						Aster				/	
Ricciocarpus natans						Bananas				/	✓
Sabal palmetto	/		/			Urena lobata				/	
Sacciolepis striata						Eupatorium sp. <i>serotinum</i>	/	/			
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia	/	/	/	/							
Sagittaria latifolia											

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Umatilla</u>		County: <u>Lake</u>		Date: <u>8/15/17</u>							
Analyst: <u>Natalie Ayala / Tony R. Jordan</u>		Signature: <u>[Signature]</u>		STORET: <u>G11E0067</u>							
Except where noted as "sp." species level identification required. *Genera that may require lab verification* Plants in bold = FLEPPC invasive exotic.				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	1	4	7	10	Collected? (✓)	SPECIES	1	4	7	10	Collected? (✓)
Acer rubrum	/	/	/			Fraxinus					
Alternanthera philoxeroides				/		Fuirena scirpoides					
Amaranthus australis		/	/			Gordonia lasianthus				/	
Andropogon sp.						Habenaria repens					
Azolla filiculoides (A. caroliniana)						Hibiscus coccineus					
Baccharis sp.			/			Hibiscus grandiflora					
Bacopa caroliniana	/			TNR		Hydrilla verticillata					
Bacopa monnieri						Hydrocotyle sp.	/	/	/	/	
Bidens alba				/		Hygrophila polysperma					
Bidens laevis						Hymenocallis sp.					
Bidens mitis						*Hypericum fasciculatum					
Blechnum serrulatum						*Hypericum hypericoides					
Boehmeria cylindrica						*Hypericum myrtifolium					
Brasenia schreberi						Ilex cassine	/	/			
Cabomba caroliniana						Ipomoea aquatica					
Canna						Ipomoea sagittata					
Centella asiatica						Itea virginica					
Cephalanthus occidentalis	/	/				Juncus effusus					
Ceratophyllum demersum	/	/	/	/		*Juncus marginatus	/				/
Chara sp.						*Juncus megacephalus					
Cicuta maculata						Juncus repens					
Cinnamomum camphora						*Juncus scirpoides					
Cladium jamaicense	/	/				Lachnanthes caroliniana					
Colocasia esculenta	/			/		Leersia hexandra					
*Commelina						Landoltia punctata (Spirodela punctata)					
Crinum americanum						Lemna sp.					
*Cyperus alternifolius (C. involucratus)						Leucothoe racemosa (Eubotrys racemosa)					
Cyperus articulatus						Limnium spongia					
Cyperus haspan						Limnophila sessiliflora					
*Cyperus lecontei						Liquidambar styraciflua					
*Cyperus polystachyos	/					*Ludwigia arcuata					
*Cyperus odoratus	/		/	/		*Ludwigia grandiflora					
*Cyperus surinamensis						*Ludwigia hexapetala					
Cyrtilla racemiflora						*Ludwigia leptocarpa					/
Decodon verticillatus						Ludwigia (native)					
Diodia virginiana						*Ludwigia octovalvis					/
*Echinochloa crus-galli						*Ludwigia peruviana	/	/	/	/	
*Echinochloa muricatum						*Ludwigia repens					
Echinochloa walteri						Ludwigia suffruticosa					
Eclipta prostrata (E. alba)						Luziola fluitans (Hydrochloa carolinensis)	/	/			
Eichhornia crassipes						Magnolia virginiana	/	/			
*Eleocharis balduini				/		Mayaca fluviatilis					
Eleocharis cellulosa						Melaleuca quinquenervia					
*Eleocharis elongata						Micranthemum glomeratum					
Eleocharis equisetoides						Micranthemum umbrosum					
Eleocharis interstincta						Mikania scandens	/		/	/	
Eleocharis submersa viviparous		/				Mimosa pigra					
*Eriocaulon compressum						Myrica cerifera	/	/	/		
*Eriocaulon decangulare						<u>VHS</u>	/	/	/		
Eupatorium capillifolium	/	/	/	/		<u>Ginger Lily</u>	/	/	/		<u>NA</u>