



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2018

Data Qualified?

Yes / No

Location/STORET Station Name: Lake Juniper Center

Date: 08/16/2018
(mm/dd/yyyy)

WIN ID: G3NW0119

WBID: 283

Latitude: 30.76984553

County: Walton

RQ - 2018-0813-33

ORG ID: 21FLPNS

Longitude: -86.13013320

Receiving Body of Water: Choctawhatchee R.

Field ID: G3NW0119

Sampling Team Members				WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment			
Frank Butera									☒ Sample Container	☐ Van Dorn	☐ Pole	
NATHAN Mulkey									☐ Carboy	☒ Syringe		
									☐ Dipper	☐ Other		
									Equipment ID			
									Collection Method			
									☐ Wading	☐ Canoe/Kayak		
									☐ From Shore	☐ Electric Motor		
									☐ Other	☒ Gasoline Motor		
Water Level: Dry / Low / Normal / Above Normal / Flooded				Meter ID# 154179				Matrix: Fresh Marine / DI				
Photos: Yes / No				Flow: No Flow / Intertidal / 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°)		
EST	03:30	3.1	0.3	2.3	7.58	100.9	6.85	0.01	29.1	30.4		
CEN	13:50		2.6		0.23	3.0	5.60	0.01	31.2	29.3		

Biological Samples Collected:		None	HA	SCI	RPS	Algae ID	LVS	LVI	Other:
SBIO ID Numbers:		SBIO-ID: 70762	HA-ID: 15345	RPS-ID:	Macrophyte-ID:		LIMS#: 2018055		
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	SA7341020	12/07/2018	☒ <2				
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <2				
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice	16570048						
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	☒ Ice							
Molecular	☐ PCR-FILTER ☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-GFD	☐ Ice							
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA	☐ Ice							
Pesticides	☐ W-PSNP-TQ ☐ W-UHERB-AA ☐ W-AHERB-AA ☐ W-CARB-AA ☐ W-PCL-SQ-R ☐ W-PYR-AA-R ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Ice ☐ Other							

Notes:

Field/WIN ID

G3NW0119

Location:

LAKE JUNIPER CENTER

Signature:

Date:

Enter Field Parameters, Verify Station ID in LIMS DMT:

QC Station ID, Field Parameters in LIMS DMT:

Scan/Save Field Sheets

Migrate Data to WIN:

Verify Data in WIN:

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: 78762 MACROPHYTE ID: _____ LATITUDE: N 30.769845
 COUNTY: Walton (Defuniak Springs) STORET #: G3NW0119 LONGITUDE: W -86.13013
 DATE: 8/16/2018 TIME: 13:54 SAMPLING AGENCY: FL DEP - NWROC
 SITE NAME: Lake Juniper (Center) WBID: 283
 FIELD ID/NAME: G3NW0119 LAKE SIZE: 539 RQ: 2018-08-13-33

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: <u>4.59</u>			
Local Watershed Erosion (select one) : ☐ None ☐ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution : ☐ No evidence ☐ Slight ☐ Moderate ☐ Heavy						Artificially Impounded ☐ Yes ☐ No Land Use Source & Year:			
STORMWATER INPUTS <u>8</u>		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	
LAKESIDE ALTERATIONS <u>13</u>		Very few man-made structures, roads, or other disturbance adjacent to lake (<10% lakeside affected) 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	
BUFFER ZONE <u>11</u>		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	

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>SA7341020</u> Exp. Date: <u>12/07/2018</u> 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: <u>0.3</u> <u>30.4</u> <u>6.85</u> <u>7.58</u> <u>100.9</u> <u>29.1</u> <u>0.01</u> Mid-Depth: _____ Bottom: <u>2.6</u> <u>29.3</u> <u>5.64</u> <u>0.23</u> <u>3.4</u> <u>31.2</u> <u>0.01</u>								Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____			
Meter ID: <u>154179</u> <u>REV DSS</u>								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): _____								Sediment Odors: ☒ Normal ☐ Anaerobic ☐ Other (Specify): _____			
Biological Communities: LVI Conducted? ☒ Yes ☐ No Phytoplankton Sample Taken? ☐ Yes ☒ No Sample Preserved? ☒ Yes ☐ No Lot #: <u>SA7341020</u> Exp. Date: <u>12/7/2018</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 ☒ ☐ ☐ ☐			
Weather Conditions: <u>RAIN, Thunderstorms.</u>								Additional Notes: <u>LIMS ID 2018055</u>			

SAMPLING TEAM: Frank Butera,

WALTER MUCKEY

SIGNATURE:

Frank Butera

DATE:

8/16/2018

STATE OF FLORIDA, DEPARTMENT OF ENVIRONMENTAL PROTECTION
Lake Habitat Assessment Field Sheet

Store/ WIN ID NUMBER: G3NW0119	DATE (M/D/Y) <u>8/16/2018</u>	LAKE NAME: Lake Juniper		FIELD ID / NAME: G3NW0119
ECO-REGION: 283	COUNTY: Walton	SAMPLING LOCATION/DESCRIPTION: Defuniak Springs, FL		LAKE SIZE: 539 Acres
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 ☒	Secchi >3 m Or VOB	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 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 ☒	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 ☒	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 ☒	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 ☒	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 ☒	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 ☒	COMMENTS:			
ANALYSIS DATE: <u>8/16/2018</u>	ANALYST: Frank Butera,		SIGNATURE: 	

SBO ID: 78762

HA ID: 15345

RQ:2018-08-13-33

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: Lake Juniper Center				County: Walton (Defuniak Springs)				Date:				
Analyst: F. Butera				Signature:				STORET: G3NW0119				
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.												
SBIO ID	78762			Collect ed? (✓)	Macro ID				Collect ed? (✓)			
SPECIES	1 4 7 10				SPECIES	1 4 7 10						
Acer rubrum	1	1	1		Habenaria repens							
Alternanthera philoxeroides					Hydrilla verticillata							
Andropogon sp.			1		Hydrocotyle sp.		1	1				
Azolla filiculoides (A. caroliniana)					Hygrophila polysperma							
Baccharis sp.					*Hypericum fasciculatum							
Bacopa caroliniana	5	D	D		*Hypericum hypericoides							
Bacopa monnieri					*Hypericum myrtifolium							
Bidens laevis					Ilex cassine							
Bidens mitis					Ipomoea aquatica							
Blechnum serrulatum					Ipomoea sagittata							
Boehmeria cylindrica					Itea virginica							
Brasenia schreberi		1	1		Juncus effusus							
Cabomba caroliniana					*Juncus marginatus	1		1				
Casuarina equisetifolia					*Juncus megacephalus							
Centella asiatica			1		Juncus repens							
Cephalanthus occidentalis			1		*Juncus scirpoides							
Ceratophyllum demersum					Lachnanthes caroliniana	1	1	1	1			
Chara sp.					Leersia hexandra							
Cladium jamaicense					Landoltia punctata (Spiro. punctata)							
Cliftonia monophylla					Lemna sp.							
Colocasia esculenta	1				Leucothoe racemosa (E. racemosa)							
*Commelina					Limnobia spongia							
Crinum americanum					Limnophila sessiliflora							
*Cyperus alternifolius (C. involucratus)					Liquidambar styraciflua							
Cyperus articulatus					*Ludwigia arcuata							
Cyperus haspan					*Ludwigia leptocarpa							
*Cyperus lecontei					*Ludwigia linearis							
*Cyperus polystachyos					*Ludwigia octovalvis							
*Cyperus odoratus	1		1		*Ludwigia peruviana							
*Cyperus surinamensis					*Ludwigia repens							
Cyrtilla racemiflora	1	1	1		*Ludwigia <i>sp. w. flowers</i>	1	1	1				
Decodon verticillatus					Luziola fluitans (H. carolinensis)							
Diodia virginiana					Lyonia lucida							
*Echinochloa crus-galli					Magnolia virginiana							
*Echinochloa muricatum					Mayaca fluviatilis		1					
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	1	1	1	1			
Eleocharis cellulosa					<i>Juncus polycephalus</i>	1	1	1	1			
Eleocharis equisetoides					<i>Mugwort grandiflora</i>	1	1	1	1			
Eleocharis interstincta					<i>Eleocharis virgata</i>	1	1	1	1			
*Eriocaulon compressum					<i>Cyperus</i>	1	1	1	1			
*Eriocaulon decangulare					<i>Carex glaucescens</i>	1	1	1	1			
Eupatorium capillifolium		1	1		<i>Hypericum bracteatum</i>	1	1	1	1			
*Fuirena												
Fuirena scirpoidea												
Gordonia lasianthus												

RQ:2018-08-13-33

CIMS ID 20175501
 2018055

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Waterbody: Lake Juniper Center Storet: G3NW0119					Date: 8/16/2012	SBIO ID: 70762	Macro ID:	
SPECIES				Collect ed? (✓)	SPECIES			Collect ed? (✓)
Myriophyllum aquaticum					Salix caroliniana		1	
*Myriophyllum heterophyllum					Salvinia minima			
*Myriophyllum laxum					Sambucus canadensis			
*Myriophyllum pinnatum					Sapium sebiferum	1	1	1
Myriophyllum spicatum					Saururus cernuus			
*Najas filifolia					Schinus terebinthifolius			
*Najas guadalupensis					*Schoenoplectus californicus			
*Najas minor					*Schoenoplectus pungens			
Nelumbo lutea			1		*Schoenoplectus tabernaemontani			
Nitella spp.	1	1			Scirpus cubensis (Oxycaryon cubense)			
Nuphar sp.	1	1			Scirpus cyperinus	1	1	
Nymphaea odorata	1	1	1		*Sesbania			
Nymphoides aquatica	1	1	1		Solidago sp.			
Nyssa sylvatica var. biflora			1		Sparganium americanum			
Orontium aquaticum					Spartina bakeri			
Osmunda cinnamomea			1		Spirodela polyrhiza			
Osmunda regalis	1				Taxodium sp.		1	
Panicum hemitomon	1	1	1		Thalia geniculata			
Panicum repens	1	1	1		Thelypteris palustris			
Paspalidium geminatum					Triadenum virginicum	1	1	1
*Paspalum repens					Typha sp.		1	1
Paspalum urvillei	1	1	1		Urochloa mutica (Brachiaria mutica)			
Peltandra sp.					*Utricularia gibba (U. biflora)			
Persea sp.					*Utricularia floridana		1	
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			1	✓	*Websteria confervoides			
*Polygonum punctatum					Wedelia trilobata (Sphag. trilobata)			
*Polygonum					Wolffiella spp.			
Pontederia cordata			1		Woodwardia virginica <i>areolata</i>	1	1	1
*Potamogeton diversifolius					Xyris sp.	1	1	1
*Potamogeton illinoensis					Zizania aquatica			
*Potamogeton pusillus					Zizaniopsis milacea			
*Potamogeton pectinatus (Stuck. pectinatus)					Rhexia mariana		1	
Proserpinaca pectinata					Ilex humilis		1	
*Rhexia mariana	1	1	1	✓	Vaccinium	1	1	✓
*Rhynchospora corniculata					Oxycubensis	1	1	1
*Rhynchospora inundata			1	✓	B/G Algae	1	1	1
Rhynchospora tracyi					Phragmites	1	1	1
Ricciocarpus natans					Alcornoque	1	1	
Sabal palmetto					Fire weed	1		
Sacciolepis striata					Sp. h. c.	1	1	1
*Sagittaria filiformis								
*Sagittaria graminea								
*Sagittaria isoetiformis								
Sagittaria lancifolia								
Sagittaria latifolia								
PINUS	1	1	1					
Vitis	1	1	1					

RQ:2018-08-13-33

*Schoenoplectus tabernaemontani = Scirpus validus

DEP-SOP-001/01
FS 7000 General Biological Community Sampling

Form FD 9000-2: COMPOSITE LAKE SAMPLING SHEET (< 1000 ACRES)

Date: <u>8/16/2018</u>		Name of Lake: Lake Juniper.		Gear used: <u>PONAR</u>		EKMANN		OTHER	
Comments:									
Drop #	Depth (m)	Sediment Type (circle all that apply)		Drop #	Depth (m)	Sediment Type (circle all that apply)			
1		<u>sand</u> , <u>silt/clay</u> , <u>CPOM</u> , <u>muck</u> , <u>SAV</u>		<u>Start of</u> <u>7</u> <u>3-1</u>		<u>sand</u> , <u>silt/clay</u> , <u>CPOM</u> , <u>muck</u> , <u>SAV</u>			
2		sand, silt/clay, CPOM, muck, SAV		8		sand, silt/clay, CPOM, muck, SAV			
3		sand, silt/clay, CPOM, muck, SAV		9		sand, silt/clay, CPOM, muck, SAV			
4		<u>sand</u> , <u>silt/clay</u> , <u>CPOM</u> , <u>muck</u> , <u>SAV</u>		10		sand, silt/clay, CPOM, muck, SAV			
5		sand, silt/clay, CPOM, muck, SAV		11		<u>sand</u> , <u>silt/clay</u> , <u>CPOM</u> , <u>muck</u> , <u>SAV</u>			
6		sand, silt/clay, CPOM, muck, SAV		12		sand, silt/clay, CPOM, muck, SAV			

CPOM = coarse particulate organic matter; SAV = submerged aquatic vegetation

WIN ID: G3NW0119
WBID 283

Field ID G3NW0119 Project. TMDL Studies (SMP 2018) SBIO ID:
RQ-2018-08-13-33

Paste map here and show location of each dredge drop and where water chemistry parameters were collected.

Revision Date: February 1, 2004