

Site Name Z1-SL-11021. Impoundment on Davis Mill Ck.

Date 10/04/2017

Field ID 21SL11021

Storet 52009^{FB} 52007

Visit ID 78225

RQ: 2017-09-04-10

VPDB ID _____

HA ID 15023

☒ Sample Site Created in SBIO

FB 02/20/2018

☒ Phys/Chem entered in SBIO

FB 02/20/2018

☒ HA entered in SBIO

Initial FB 02/20/18

☐ Date and Initial QA: _____

☐ LVI entered in SBIO

Initial _____

☐ Date and Initial QA: _____

☐ < 2 m² vegetation

☒ Plants getting verified

Date submitted: 11/06/2017

☐ Plants verified

Date returned: _____

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: 78225 MACROPHYTE ID: _____ LATITUDE: N 30.81999
COUNTY: Okaloosa STORET #: 52007 LONGITUDE: W 86.59116
DATE: 10/01/17 TIME: 10:30 SAMPLING AGENCY: FL DEP - NWROC
SITE NAME: Impoundment on Davis Mill Ck. WBID: 231
FIELD ID/NAME: Z1-SL-11021 LAKE SIZE: 13 RQ: 2017-09-04-10

WATERSHED / LAKESIDE FEATURES R0-2017-09-04-10

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:	
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>6</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	
LAKESIDE ALTERATIONS <u>6</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	
BUFFER ZONE <u>10 6</u>		Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer 20 19 18 17 16		50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer 15 14 13 12 11	
				Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place 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 _____					
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>24.9</u> <u>6.2</u> <u>7.6</u> <u>91</u> <u>49</u> <u>0.0</u> Mid-Depth: _____ Bottom: <u>2.9</u> <u>23.5</u> <u>6.0</u> <u>6.9</u> <u>81</u> <u>54</u> <u>0.0</u> Meter ID: <u>NWFWMD</u>						Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____					
Sediment Type: (may check more than one) ☐ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☒ Other (Specify): <u>CLAY</u>						Clarity: ☐ Clear ☒ Turbid ☒ Slightly Turbid (FS) Color: ☒ Clear ☐ Tannic ☐ Green					
Sediment Odors: ☒ Normal ☐ Other (Specify): _____ ☐ Anaerobic						SECCHI (M) <u>1.5</u> Total Station Depth (M) <u>3.8</u> VOB ☐					
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 ☒ ☐ ☐ ☐					
Weather Conditions:						Additional Notes: YSI readings provided by NWFWMD staff e site.					
SAMPLING TEAM: Frank Butera, Mike King						SIGNATURE: <u>[Signature]</u> DATE: <u>10/01/17</u>					

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

52007
 STORET STATION NUMBER: 78225 FB DATE (M/D/Y) 10/04/2017 LAKE NAME: Impoundment on Davis Mill Ck. (Z1-SL-11021) FIELD ID / NAME: Z1-SL-11021

WBID: 231 COUNTY: Okaloosa SAMPLING LOCATION/DESCRIPTION: Crestview LAKE SIZE: 13 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 11	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 16 15	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 6	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 4 6	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 6	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 10 12	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 10	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 1365 **COMMENTS:**

ANALYSIS DATE: 10/04/17 ANALYST: Frank Butera, Mike King SIGNATURE: [Signature]

SB10 ID 78225

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

78225

Site: Z1-SL-11038. Impndrnt on Davis Mill Ck.

Storet: ~~BA~~

Date: 10/04/2017

SBIO ID: ~~78225~~ Macro ID

Storet/WIN TO 52407	2	5	8	11	Collected? (✓)	SPECIES	2	5	8	11	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 odorata						*Sesbania					
Nymphoides aquatica						Solidago sp.					
Nyssa sylvatica var. biflora						Sparganium americanum					
Orontium aquaticum	1	1	1			Spartina bakeri					
Osmunda cinnamomea						Spirodela polyrhiza					
Osmunda regalis						Taxodium sp.					
Panicum hemitomon						Thalia geniculata					
Panicum repens				1		Thelypteris palustris					
Paspalidium geminatum						Triadenum virginicum	1	1	1	1	
*Paspalum repens						Typha sp.					
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						*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						Woodwardia virginica					
*Potamogeton diversifolius						Xyris sp.				1	1
*Potamogeton illinoensis						Zizania aquatica					
*Potamogeton pusillus						Zizaniopsis milacea					
*Potamogeton pectinatus (Stuck. pectinatus)											
Proserpinaca pectinata											
*Rhexia mariana				1	1						
*Rhynchospora corniculata											
*Rhynchospora inundata	1			1	1						
Rhynchospora tracyi											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia											
Sagittaria latifolia											
Saccharum giganteum	1	1									
Panicum pruriens flowers	1										

~~CAREX~~ ~~SP.~~ ~~Gum.~~
~~Y-DAMN~~
~~BRANCHLET~~

~~Oxypolis filiformis~~

~~Vaccinium~~
~~Rhododendron viscosum~~

~~CAREX SP.~~
~~Panicum virgatum~~

~~Liriodendron~~

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: Z1-SL-11038. Impoundment on Davis Mill Ck.		County: Okaloosa		Date: 12/04/2017	
Analyst: F. Butera		Signature: <i>[Signature]</i>		STORET: 52007	
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 <u>2, 5, 8, 11</u> 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 <u>78225</u>	2	5	8	4	Collected? (v)
SPECIES					Macro ID _____
Acer rubrum	1	1	1	1	Habenaria repens
Alternanthera philoxeroides			1	1	Hydrilla verticillata
Andropogon sp.	1		1		Hydrocotyle sp.
Azolla filiculoides (A. caroliniana)					Hygrophila polysperma
Baccharis sp.			1		*Hypericum fasciculatum
Bacopa caroliniana					*Hypericum hypericoides
Bacopa monnieri					*Hypericum myrtifolium
Bidens laevis					Ilex cassine
Bidens mitis	1	1	1	1	Ipomoea aquatica
Blechnum serrulatum					Ipomoea sagittata
Boehmeria cylindrica					Itea virginica
Brasenia schreberi					Juncus effusus
Cabomba caroliniana					*Juncus marginatus
Casuarina equisetifolia					*Juncus megacephalus <i>polyccephalus</i>
Centella asiatica		1	1	1	Juncus repens
Cephalanthus occidentalis					*Juncus scirpoides
Ceratophyllum demersum					Lachnanthes caroliniana
Chara sp.					Leersia hexandra
Cladium jamaicense					Landoltia punctata (Spiro. punctata)
Cliftonia monophylla	1	1			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
*Cyperus lecontei			1	1	*Ludwigia linearis
*Cyperus polystachyos					*Ludwigia octovalvis
*Cyperus odoratus					*Ludwigia peruviana
*Cyperus surinamensis					*Ludwigia repens
Cyrilla racemiflora	1	1		1	*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			1		Mimosa pigra
*Eleocharis					Myrica cerifera
Eleocharis cellulosa					<i>Juncus triglucum</i>
Eleocharis equisetoides			1		<i>Hypericum sp</i>
Eleocharis interstincta					<i>Pinus clausa</i>
*Eriocaulon compressum					<i>Arum serotum</i>
*Eriocaulon decangulare					<i>Dichan scab</i>
Eupatorium capillifolium					<i>Saxif glaucescens</i>
*Fuirena <i>brevifolia</i>	1	1		1	<i>Lycopodium</i>
Fuirena scirpoidea					<i>Albizia</i>
Gordonia lasianthus <i>Euthamia</i>			1		

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

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

Date: 10/4/17		Name of Lake: Z1-SL-11021 Davis Mill Ck. Impoundment		Gear used: <u>PONAR</u> <u>pel-te</u>		EKMAN		OTHER	
Comments:									
Drop #	Depth (m)	Sediment Type (circle all that apply)		Drop #	Depth (m)	Sediment Type (circle all that apply)			
1		sand, silt/clay, CPOM, muck, SAV		7		sand, silt/clay, CPOM, muck, SAV			
2	1.5	sand, silt/clay, CPOM, muck, <u>SAV</u>		8		sand, silt/clay, CPOM, muck, SAV			
3		sand, silt/clay, CPOM, muck, SAV		9		sand, silt/clay, CPOM, muck, SAV			
4		sand, silt/clay, CPOM, muck, SAV		10		sand, silt/clay, CPOM, muck, SAV			
5	1.2	sand, silt/clay, CPOM, muck, SAV		11	3.8	sand, silt/clay, CPOM, muck, SAV			
6		sand, silt/clay, CPOM, muck, SAV		12		sand, silt/clay, CPOM, muck, SAV			

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

Storet 52-007 Field ID Z1SL11021 Project. Status Small 2017
WBID 231

SBIO ID: 78225

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

Photo Log

Storet

Station Name: Z1-SL-11021. Unnamed Impoundment

Date:

Samplers. F. Butera, M. King

1 _____

2 _____

3 _____

4 _____

5 _____

6 _____

7 _____

8 _____

9 _____

10 _____

11 _____

12 _____

13 _____

14 _____

15 _____

16 _____

17 _____

Notes.

Z1-SL-11021 WBID 231
30.81999 x 86.59116
2017 Status

A.
30.822456
86.592973

B.
30.821404
86.59204

L.
30.821256
86.593387

K.
30.820756
86.592544

J.
30.819794
86.591901

C.
30.820428
86.591141

D.
30.81925
86.59036

I.
30.818988
86.591117

H.
30.818116
86.590642

E.
30.818008
86.589909

G.
30.817078
86.590174

F.
30.816652
86.589433

Davis Mill Ct

Staff Rd

12

11

11

2

10

3

9

4

8

7

5

6