FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Strategic Monitoring Program

CHAIN OF CUSTODY FORM

Date: 2/11/2020

Collected By: K. Applebee, T. Parrish, K. McDonald

Customer: 21FLA

Sampling Agency: FDEP NE ROC

RQ- 2020-02-10-15

Project ID: SCI Reference

Number of Coolers Shipped: 2

PLEASE RETURN THE ORIGINAL OF THIS FORM WITH SAMPLE SUBMITTAL FORMS AND THE COOLER PACKING WORKSHEET TO THE LAB.

FIELD ID (Labels) submitted under this RQ for this collection date.

WIN ID/Field ID: 20030414

Gold Head Br. In State Park @ Old Mill Site

RELINQUISHED BY (SIGNATURE): _____ DATE/TIME: 2/11/2020 1600 ☒ EST ☐ CST

THIS SECTION IS TO BE COMPLETED BY THE LABORATORY

Received/ Inspected By (signature): _____

Received/ Inspected Date: _____ Received/ Inspected Time: _____ ☐ EST ☐ CST

Sample Receipt Temperature (Degrees Centigrade): _____

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: [redacted] RQ-2020-02-10-15 Project: SLT Reference

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 2/2020

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp °C	Barometer mmHg	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	K. Appleby	2/11/20	759	22.7	765.0	8.6	8.66	100.7	—	1.03	(P) F	(L) F
ICV	↓	↓	803	22.9	764.9	8.7	8.66	100.7	—	1.03	(P) F	(L) F
CCV	↓	↓	1628	24.5	762.9	8.4	8.32	99.8	—	1.03	(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 µmhos/cm	Meter Reading µmhos/cm	Pass / Fail	Lab / Field
Calibr.	K. Appleby	2/11/20	805	191018	10/2020	1000	1000	(P) F	(L) F
ICV	↓	↓	807	190711A	7/2020	100	102.5	(P) F	(L) F
CCV	↓	↓	1634	147103	4/2020	147	147.9	(P) F	(L) F
CCV								P / F	L / F

Conductivity Acceptance criteria ± 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.	K. Appleby	2/11/20	816	2902798	1/2021	7.00	23.2	7.00	-41.0	(P) F	(L) F
Calibr.	↓	↓	818	2904R00	~~10/2021~~ 3/2021	4.00	22.9	4.00	139.9	(P) F	(L) F
Calibr.	↓	↓	821	2810F55	4/2020	10.00	23.1	10.00	-207.2	(P) F	(L) F
ICV	↓	↓	824	2902798	1/2021	7.00	23.2	7.05	-36.9	(P) F	(L) F
CCV	↓	↓	1636	2904R00	3/2021	4.00	24.0	3.99	141.7	(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 ± 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: 2/2020
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	K. Appleby	2/11/20	825	0.00	0.00	(P) F	(L) F

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

COMMENTS:

RQ-2020- 02-10-15 **Collected By:** K. Appleby, K. McDonald, J. Parrish
Customer: 21FLA **Field Report Prepared By:** Kim Appleby
Project ID: SE SCI Reference **Sampling Agency:** FDEP NE Rgl

WIN ID/Field ID: 20030414

Gold Head Br. In State Park @ Old Mill Site

Comments:

JLFURIC ACID <51% — THERMO FISHER SCIENTIFIC, 520 NORTH MAIN STREET, MIAMI, OK 74354, 1-626-556-2711 — Contains: 1:1 H2SO4 — Lot No.: SA9301030 — Expires: 10/28/20 — See Safety Data Sheet (SDS)

Matrix: (Fresh) / Marine (Check one) ☒ GRAB ☐ COMPOSITE

Date	Time	DO (mg/L)	DO (%SAT)	Temp. (C°)	pH	Sample Depth (m)	Secchi Disk (m)	Total Depth (m)	Sp COND (µmhos/cm)	Salinity (PPTh)
2/11/20	1030 EST / CST	8.37	93.6	20.8	5.17	0.10	0.20 ☒ VOB (S)	0.20	21.1	0.01
	Cental Lab please use top row for login purposes									
	EST / CST									

Parameter Suite	Parameter Methods	Preservation	pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TDC / W-S-A-TP	☒ Ice ☒ H_2SO_4*	☒ <2	1	A
	Lot # SA9301030 Exp: 10/2020				
Metals (P-500ML)	☒ W-ICPMS ☒ W-ICP ☒ W-HARD	☒ Ice ☒ HNO_3*	☒ <2	1	A
	Lot # NA9189080 Exp: 7/2020				
Filtered Nutrients (P125ML)	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice		1	A
	Filter Lot # R9MA87336				
	Syringe Lot #				
Chlorophyll (BP-1L)	☒ CHLSUITE-W	☒ Ice		1	A
Physical/Aggregate (Fresh) (P-1L)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice		1	A
Physical/Aggregate (Marine) (P-1L)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates (PJ-2L)	☒ MI-FW-QLDC	☒ Formalin		2	B
Periphyton (PT-50ML)	☐ ALGAE-ID	☐ Ice			
Microbiology (Contract Lab Bottle)	☒ E Coli ☐ F Coli ☐ Enterococci ☐ Contract Lab	☒ Ice		1 → Sent to ALS	A
Molecular (QPCR-P-500ML)	☒ PCR-HF183 ☒ PCR-BacR ☒ PCR-DG3 ☐ PCR-GULL2 ☒ PCR-GFD ☐ See Notes	☒ Ice		1	A
Tracers (BG-500ML)	☐ W-E8321-DI ☐ W-E8321-MS	☐ Ice			
Pesticides (BG-500ML) (BG-1L)	☒ W-E8321-DI ☒ WE8321-MS ☒ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-PCL-SQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution)	☒ Ice		4	A

Name: Kimberly Appleby Signature: Date: 2/11/20

NITRIC ACID 20-70% — THERMO FISHER SCIENTIFIC, 520 NORTH MAIN STREET, MIAMI, OK 74354, 1-626-556-2711 — Contains: 1:1 HNO3 — Lot No.: NA9189080 — Expires: 7/07/20 — See Safety Data Sheet (SDS)

*2.0 ml of Preservative used unless noted otherwise.
**MCAA: Monochloroacetic acid buffer solution

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2020

Meter Passed End of Day CCV: (Yes) / No

WIN Station Name: Gold Head BR. In State Park @ Old Mill Site **Date:** 2/11/2020 (mm/dd/yyyy)

WIN/ Field ID: 2 00 3044 **WBID:** 2528G **Latitude:** 29.832183 (Decimal Degrees)

County: Clay **ORG ID:** 21FLA **Longitude:** 81.945974 (Decimal Degrees)

Receiving Body of Water: Lake Johnson **RQ-2020-** 02-10-15

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Jeremy Parrish	X	X		X	X
Kim Appleby	X	X	X	X	X
Kelly McDonald		X		X	

Sampling Equipment

- [X] Sample Container
- [ ] Van Dorn
- [ ] Syringe
- [ ] Pole
- [ ] Dipper
- [ ] Other _____

Depth Measured with Marev

Equipment ID Orthe L:T #14

Collection Method

- [X] Wading
- [ ] Canoe/Kayak
- [ ] From Shore
- [ ] Electric Motor
- [ ] Other _____
- [ ] Gasoline Motor

Water Level: Dry/ Pooled/ Low / (Normal) / High / Flooded

Meter ID# Desi

Photos: Yes / (No)

Flow: No Flow / (Flowing) / NA

Tide: Rising/ Falling/ Slack/ (NA)

Tide Times: High _____ Low _____

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

SBIO ID Numbers:	SBIO-ID:	HA-ID:	RPS-ID:	Macrophyte-ID:	LIMS#:

Notes:

Duplicate Sample

Time Zone: EST CEN **Time:** _____ **Field ID:** _____ (WIN ID_DUP)

WIN DMT Activity ID: _____

Blank

Time Zone: EST CEN **Time:** _____ **Field ID:** _____ (Blank Type_DDMMYYYY)

DI Source: _____ **Location:** _____

- [ ] Field Blank
- [ ] Equipment Blank
- [ ] Field Cleaned Equipment Blank

Equipment ID: _____

LIMS EVENT ID: _____ **WIN Import ID:** _____

Enter Field Parameters, Verify Station ID in LIMS DMT: _____ (Initials/Date) **QC Station ID, Field Parameters in LIMS DMT:** _____ (Initials/Date)

Scan/Save Field Sheets _____ (Initials/Date) **Migrate Data to WIN:** _____ (Initials/Date) **Verify Data in WIN:** _____ (Initials/Date)

CHAIN OF CUSTODY / LABORATORY ANALYSIS REQUEST FORM

ALS Environmental

9143 Philips Highway, Suite 200 Jacksonville, FL 32256 / Ph(904) 739-2277 / FAX (904) 739-2011

SR #

ALS Contact

Page _____ of _____

Project Name	Project Number
SCI Reference	RQ-2020-02-10-15
Report To	**Report CC**
Jeremy Parrish	Dep-overflowmicro@dep.state.fl.us
Company/Address	
8300 Baymeadows Way W Jacksonville, FL 32256	
Phone #	**FAX #**
(904)256-1700	
Sampler's Signature	**Sampler's Printed Name**
	Kimberly Appleby

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	Matrix	Preservative	NUMBER OF CONTAINERS	E. Coli	REMARKS
20030414		2/11/20	1030	SW		1	X	Fresh

Preservative Key: 0. None; 1. HCL; 2. HNO3; 3. H2SO4; 4. NaOH; 5. Zn. Acetate; 6. MeOH; 7. NaHSO4; 8. Other

Special Instructions/Comments: 5.9C

TURNAROUND REQUIREMENTS

____ RUSH (SURCHARGES APPLY)

X STANDARD

REQUESTED FAX DATE

REQUESTED REPORT DATE

REPORT REQUIREMENTS

____ I. Results Only

____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)

____ III. Results + QC and Calibration Summaries

____ IV. Data Validation Report with Raw Data

Edata ____ Yes ____ No

INVOICE INFORMATION

P.O. # _____

Bill to: _____

Relinquished By	Received By	Relinquished By	Received By	Relinquished By	Received By
Signature:	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Kimberly Appleby	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name: Cer. Mason
Firm: FDEP NE ROC	Firm:	Firm:	Firm:	Firm:	Firm: ALS
Date/Time: 2/11/2020 1510	Date/Time:	Date/Time:	Date/Time:	Date/Time:	Date/Time: 2/11/2020 1510

DEP Form FD 9000-5 Stream/River Habitat Assessment Field Sheet

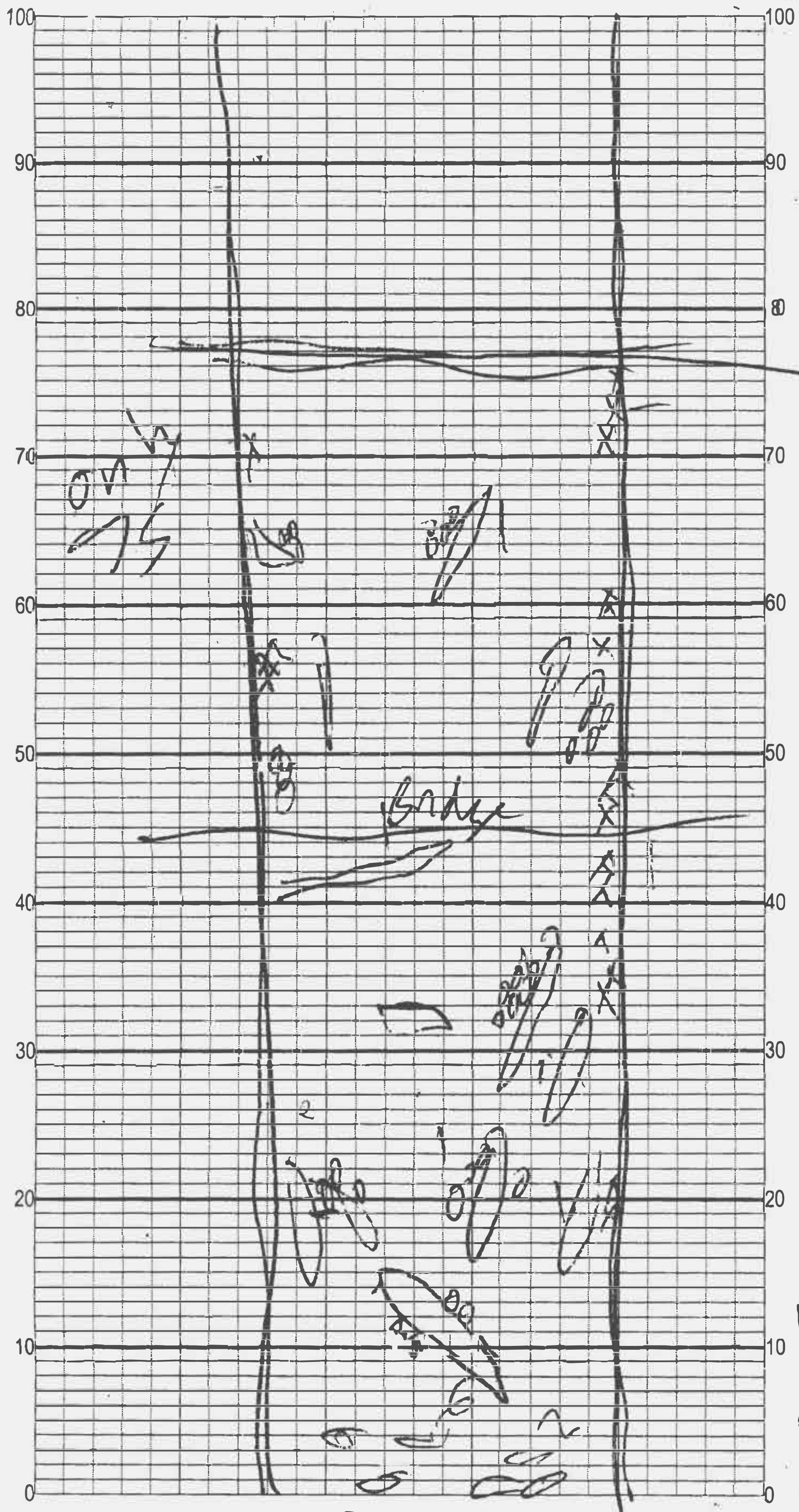
SAMPLING AGENCY:		STORET STATION NUMBER: 20030414	DATE (MM/DD/YY): 2/11/20	RECEIVING BODY OF WATER:
REMARKS:	COUNTY: Clay	LOCATION: Goldhead @ Oldmill Site		FIELD ID/NAME:

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 13	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock] 20 19 18 17 16	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags) 15 14 (13) 12 11	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed 10 9 8 7 6	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered 5 4 3 2 1
Substrate Availability ~~9~~ 10	Greater than 30% major productive habitat present at site 20 19 18 17 16	16% to 30% major productive habitat, by aerial extent 15 14 13 12 11	6% to 15% major productive habitat (10) ~~(9)~~ 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity 18	Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec ≥0.33 0.31 0.29 0.27 >0.25 20 19 (18) 17 16	Max. observed at typical transect: >0.1 to 0.25 m/sec 0.25 0.21 0.17 0.13 >0.1 15 14 13 12 11	Max. observed at typical transect: 0.05 to 0.1 m/sec 0.1 0.09 0.07 0.06 0.05 10 9 8 7 6	Max. observed at typical transect: <0.05 m/sec; or spate occurring: > 1 m/sec <0.05 0.04 0.03 0.01 <0.01 5 4 3 2 1
Habitat Smothering 16 .... Primary Score ~~56~~ 57	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. 20 19 18 17 (16)	Adequate number of stable pools (1-2 per 12 times width) and >25% of habitats affected by sand, silt, or algae. 15 14 13 12 11	Does not have required number of stable pools (1-2 per 12 x width) and/or has shallow pools (<2 x prevailing depth). 10 9 8 7 6	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation. 5 4 3 2 1
Secondary Habitat Components **Artificial Channelization** 20	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. (20) 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging or straightening in the past (>25 yrs) but mostly recovered. 15 14 13 12 11	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area. 10 9 8 7 6	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks. 5 4 3 2 1
Bank Stability Right Bank 10 Left Bank 10	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankful to top of bank. Bankfull is within or above the woody root zone with few raw, eroded areas. (10) 9	Only meets 2 of the 3 requirements for optimal bank stability. 8 7 6	Only meets 1 of the 3 requirements for optimal bank stability. 5 4	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the woody root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width Right Bank 10 Left Bank 10	Width of vegetation greater than 18 m (10) 9	Width of vegetation >12 to 18m 8 7 6	Width of vegetation 6 to 12 m. human activities close to system 5 4	Less than 6 m of buffer zone due to intensive human activities 3 2 1
Riparian Zone Vegetation Quality Right Bank 9 Left Bank 9 78 .... Secondary Score 78	Over 80% of riparian surfaces consist of normal, expected plant community for given sunlight & habitat conditions (e.g., native plants; tree, shrub, and forbs represented, if appropriate). Minimal disturbance. 10 (9)	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed. 8 7 6	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious. 5 4	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). 3 2 1

56 135 **TOTAL SCORE**

Date: 2/11/20	Analyst: Jerry Parr	Signature: Jerry Parr

DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



Location: Oldhead @ Old m.?? site

Date: 2/11/20

Sampler: BP

100 m: Latitude	
Longitude	
0 m: Latitude	
Longitude	

Substrates: Code key, draw proportionate habitat abundance. %

		%
[snag symbol]	Snags	11
[roots symbol]	Roots/undercut banks	1.8
[leaf symbol]	Leaf Packs (or mats)	1.8
	Aquatic Macrophytes	
	Pools	total # observed = ___ # range expected = ___

Average width ________ m

Average depth ________ m

Velocity measured at _____ meter mark.

WQ & chemistry taken at _____ meter mark.

Habitat Smothering:
Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

Bank Stability:
Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:
Note areas (on map) where natural vegetation is altered or eliminated.

Plants observed / other notes:

leaf = 1.5 2.5 =

root = 1.5-2.5

snag = ~~11~~ ~~2.5~~ 10

1.0

Length of grid represents 100 m of stream (not linear meters).
(Horizontal scale is double vertical scale, draw proportionately).

DEP Form FD 9000-3 Physical/Chemical Characterization Field Sheet

SAMPLE ID _____ ORG ID: 21FLA LATITUDE 29.832183
COUNTY Clay STORET #: _____ LONGITUDE 81.945974
DATE 2/11/2020 TIME 1030 SAMPLING AGENCY FDEP NE ROL
SITE NAME Cold Head Br. In State Park @ Old Mill Site
FIELD ID/NAME 20030414 RECEIVING BODY OF WATER Lake Johnson

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industry	Other (Specify) Park
90							10

Landscape Development Intensity Index (LDI): _____

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

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

Width of Riparian Vegetation (m) on Each Buffer Side: Left Bank: >18 | Right Bank: >18

Hydrologic Modification Score (per FT 3101): 1

High Water Mark: 0.2 (m) + 0.2 (above present water level) = 0.4 (present depth) (above bed)

Artificially Impounded: ☐ Yes ☒ No

Typical Width (m) Depth (m)/Velocity (m/sec) Transect: 1.5 m wide

0.33 m/s	0.25 m/s	0.30 m/s
0.2 m deep	0.2 m deep	0.2 m deep

Artificially Channelized: ☒ NO ☐ Mostly recovered, more sinuous ☐ Some recovery ☐ Recent, severe

Canopy Cover %: ☐ Open ☐ Lightly Shaded (11-45%) ☐ Heavily Shaded ☒ Moderate Shaded (46-80%)

SEDIMENT / SUBSTRATE

Sediment Oils: ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

Sediment Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ Other (Specify):

Smothering of Substrates

	None	Slight	Moderate	Severe
Sand Smothering:	☐	☒	☐	☐
Silt Smothering:	☐	☒	☐	☐
Algae Smothering:	☒	☐	☐	☐

SUBSTRATE TYPE

Assessment Tool: ☒ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)	11	5	
Undercut Banks / Roots	1.8	5	
Leaf Packs or Mat	1.8	15	
Aquatic Vegetation			
Rock or Shell Rubble..			
Sand.....	85	15	
Mud / Muck / Silt			
Other			
Other			

WATER QUALITY

	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)
Top:	0.10	20.8	5.17	8.37	93.6	21.1	0.01	0.20
Mid:								☒ VOB
Bottom								TOTAL DEPTH
Meter ID:	DoS:							0.20

Water Odors: Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐

Water Surface Oils: Normal ☒ Sheen ☐ Globs ☐ Slick ☐ Other ☐

Water Sample Taken? ☒ Yes ☐ No
Sample Preserved? ☒ Yes ☐ No
Lot Number: _____ Exp: _____

Color: Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) ☐

Algae Sample Taken? ☐ Yes ☒ No
Sample Preserved? ☐ Yes ☒ No
Lot Number: _____ Exp: _____

Clarity: Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐

ABUNDANCE

	Not Obs.	Rare	Common	Abundant
Periphyton:	☒	☐	☐	☐
Fish:	☐	☐	☒	☐
Aquatic Plants:	☒	☐	☐	☐
Iron/Sulfur Bacteria:	☒	☐	☐	☐

System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐ _____

AMBIENT FIELD CONDITIONS / NOTES:

☐ The antecedent hydroiogic conditions have been met to my best knowledge.

SAMPLING TEAM: _____ SIGNATURE: _____ DATE: 2/11/20

62-160.800, F.A.C.

Revision Date: January 2017

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Goldhead Branch Oldmill Site | County: Clay | Date: 2/11/20 | Investigators:

STORET Station Number: 20030414

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1	N	N		60	1	N	N	
	2					2			
	3					3			
	4					4			
	5			45		5			61
	6			96		6			N
	7					7			
	8					8			
	9	N	N			9	N	N	
10	1	N	N		70	1	N	N	
	2					2			
	3					3			
	4					4			
	5			54		5			64
	6					6			91
	7					7			
	8					8			
	9	N	N			9	N	N	
20	1	N	N		80	1	N	N	
	2					2			
	3					3			
	4					4			
	5			85		5	N	N	61
	6					6			N
	7					7			
	8					8			
	9	N	N			9			
30	1		N		90	1			
	2					2			
	3					3			
	4					4			
	5			65		5			
	6					6			
	7					7			
	8					8			
	9	N	N			9			
40	1	N	N		100	1			
	2					2			
	3					3			
	4					4			
	5			75		5			
	6					6			
	7					7			
	8	N	N			8			
	9					9			
50	1	N	N						
	2								
	3								
	4			85					
	5								
	6								
	7								
	8	N	N						
	9								

Secchi depth	
Estimated?	
# points ranked 4-6	
total points assessed	
% points ranked 4-6	

Check accompanying data collected at same site/date.	
Algal mat sample	
Linear Veg Survey	
Habitat Assessment	
SCI/Biorecon	
Water sample	
RQ-	

Algal Thickness Rank	
N	rough, no algae, slimy, algae up to 1mm
3	>1mm - 6mm
4	>6mm - 20mm
5	>20mm - 10 cm
6	>10 cm

Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached.

Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank.

Record canopy cover as the number of small densiometer quadrants (out of 96) that HAVE canopy cover. Measure facing upstream at point 4, 5, or 6.

Collect algal mat sample following DEP SOP FS 7240 if the percentage of total sampled points with a thickness rank of 4, 5, or 6 is >20%.

62-160.800, F.A.C. Revision Date: January 2017

62-160.800, F.A.C. Revision Date: January 2017

DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Waterbody: Goldhead a Other | Date: 7/11/20 | County: | Storet Number: 20030414

Analyst: | Signature:

Comments:

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m^2 of taxa present). Note in the boxes below if no dominant are selected, and note total macrophyte abundance rank for each section. Only the most common taxa are listed, so use blank spaces for additional taxa names.

HERBACEOUS SPECIES	Meter Mark 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Alternanthera philoxeroides											
Bacopa caroliniana											
Bacopa monneri											
Bidens mitis											
Boehmeria cylindrica											
Centella asiatica											
Ceratophyllum demersum											
Chara											
Cicuta maculata											
Cladium jamaicense											
Colocasia esculenta											
Commelina diffusa											
Commelina virginica											
Crinum americanum											
Diodia virginiana											
Eichhornia crassipes											
Eleocharis (wispy viviparous)											
Hydrilla verticillata											
Hydrocotyle											
Hygrophila polysperma											
Hymenocallis											
Lachnanthes caroliniana											
Landoltia punctata											
Lemna											
Limnophila sessiflora											
Ludwigia leptocarpa											
Ludwigia palustris											
Ludwigia peruviana											
Ludwigia repens											
Luziola fluitans											
If no Dominant or Co-Dominant were selected, indicate with "X"											
Indicate % cover macrophytes per section											
0-5% Macrophyte Coverage											
>5 and ≤10% Macrophyte Coverage											
>10 and ≤25% Macrophyte Coverage											
>25 and ≤50% Macrophyte Coverage											
> 50% Macrophyte Coverage											

HERBACEOUS SPECIES	Meter Mark 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Micranthemum glomeratum											
Micranthemum umbrosum											
Myriophyllum aquaticum											
Najas guadelupensis											
Nuphar luteum											
Orontium aquaticum											
Panicum hemitomon											
Panicum repens											
Panicum rigidulum											
Pistia stratioides											
Polygonum glabra											
Polygonum hydropiperoides											
Polygonum punctatum											
Pontederia cordata											
Potamogeton illinoensis											
Ruellia simplex											
Sacciolepis striata											
Sagittaria kurziana											
Sagittaria lancifolia											
Sagittaria latifolia											
Salvinia minima											
Samolus parviflora											
Saururus cernuus											
Sparganium americanum											
Typha											
Vallisneria americana											
Zizania aquatica											