



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2016

PAGE 1 OF 1

Data Qualified?
Yes / No

STORET Station Name: MATTRESS DRAIN

Date: 01/26/2016
(mm/dd/yyyy)

STORET Station ID: 645W0080

Latitude: 28.288611
(Decimal Degrees)

WBID: 1435 RQ: 2016-01-25-40 ORG ID: 214LTPA

Longitude: 81.941111
(Decimal Degrees)

Receiving Body of Water: WILHACOOCHIE

Field ID: 645W0080

County: POLK

Sampling Team Members							Sampling Equipment			
							☒ Sample Container	☐ Van Dorn	☐ Pole	
							☐ Carboy	☐ Syringe		
							☐ Dipper	☒ Other <u>Y51</u>		
							Equipment ID			
							Collection Method			
							☒ Wading	Via Boat		
							☐ From Shore	☐ Canoe/Kayak		
							☐ Other (note below)	☐ Electric Motor		
								☐ Gasoline Motor		
Water Level: Dry / <u>Low</u> / Normal / High / Flooded							Matrix: <u>Fresh</u> / Marine / DI			
Meter ID# <u>LIL BIT</u>							Photos: <u>Yes</u> / No			
							Tide Falling: Yes / No / <u>NA</u>			

Field Sample										
Time Zone	Time	Total Depth (m)	Sample Depth	Temp (°C)	DO (mg/L)	DO (%SAT)	COND (µmhos/cm)	Salinity (ppt)	pH	Secchi Disk (m)
EST	12:30	0.2	0.2	15.7	8.2	82	309	0.15	4.8	0.2" S"
CEN										

Biological Samples Collected: None <u>HA</u> SCI <u>LVS</u> <u>RPS</u> LVI Other							
Parameter Suite	Parameter Methods			Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☒ TKN / TP / Nox / NH3 / TOC ☐ Other			☒ Ice ☒ H ₂ SO ₄			☒ < 2
Metals <u>Ø</u>	☐ W-ICPMS ☐ W-ICP			☐ Ice ☐ HNO ₃			☐ < 2
Filtered Nutrients	☒ op ☒ Field Filtered 0.45 µm Filter			☒ Ice			
Chlorophyll	☒ CHLSUITE-W			☒ Ice			
BOD	☐ BOD-INHB ☒ BOD-UNIN			☒ Ice			
Physical/Aggregate	☒ TSS / Turbidity / Alkalinity / Color ☐ Other			☒ Ice			
Macroinvertebrates <u>Ø</u>	☐ MI-FW-QLDC			☐ Formalin			
Microbiology <u>Ø</u>	☐ E Coli ☐ F Coli ☐ Enteroc ☐ QPCR			☐ Ice			
Periphyton	☒ ALGAE-ID <u>FORMALIN</u>			☒ Ice			
Pesticides <u>Ø</u>	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PSCL-TQA ☐ W-UHERB-AA ☐ W-GLYPH			☐ Ice ☐ Other			



WBID: 1435

Central Laboratory Sample Submittal Form

Customer: FDEP

Requester: JUDY ASHTON

Field Report Prepared By: JUDY ASHTON

Project ID: SMP

Collected By: JUDY ASHTON / S. CLINGMAN, A. SALMERON

Sampling Agency: FDEP

Location	RQ-2016-01-25-48	Barcode: G4SW0080	☐ Comp. Collection (comp begin or grab)	Eastern	Composite end	Eastern	Bottle Group(s)
Field ID	Date: 01-26-16	Time: 12:30	☒ Grab	Central	Date	Time Total	Central
STORET no.			Matrix (type, e.g. Salt, Fresh, etc)		Diss. Oxygen	☒ (mg/L)	Res. Chlorine (mg/L)
			Temp (C.) 15.7	pH 4.0	Sample Depth 0.2	☒ ft. ☒ m	Sp. Conductance (umho/cm) 309
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt) 0.15	Comments		

Location	BIO/ALGAL	☐ Comp. Collection (comp begin or grab)	Eastern	Composite end	Eastern	Bottle Group(s)
Field ID	SAMPLES	☐ Grab	Central	Date	Time Total	Central
STORET no.			Matrix (type, e.g. Salt, Fresh, etc)		Diss. Oxygen	☐ (mg/L) ☐ (%sat.)
			Temp (C.)	pH	Sample Depth	☐ ft. ☐ m
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt)	Comments	

Location		☐ Comp. Collection (comp begin or grab)	Eastern	Composite end	Eastern	Bottle Group(s)
Field ID		☐ Grab	Central	Date	Time Total	Central
STORET no.			Matrix (type, e.g. Salt, Fresh, etc)		Diss. Oxygen	☐ (mg/L) ☐ (%sat.)
			Temp (C.)	pH	Sample Depth	☐ ft. ☐ m
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt)	Comments	

Location		☐ Comp. Collection (comp begin or grab)	Eastern	Composite end	Eastern	Bottle Group(s)
Field ID		☐ Grab	Central	Date	Time Total	Central
STORET no.			Matrix (type, e.g. Salt, Fresh, etc)		Diss. Oxygen	☐ (mg/L) ☐ (%sat.)
			Temp (C.)	pH	Sample Depth	☐ ft. ☐ m
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt)	Comments	

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
JUDY ASHTON	1-26-16 5:00	FES LP						

Group: A	Bottle Type: PT-50ML	# of Bottles: 1	Preservative: Formalin	Enter Number of Bottles Sent to Lab	0
DTM-QL-C PRN-QL-C					
Group: A	Bottle Type: PJ-2L	# of Bottles: 2	Preservative: Formalin	Enter Number of Bottles Sent to Lab	0
MI-FW-QLDC					
Group: B	Bottle Type: P-1L	# of Bottles: 1	Preservative: ICE	Enter Number of Bottles Sent to Lab	1
BOD-UNIN					
Group: B	Bottle Type: BP-1L	# of Bottles: 1	Preservative: ICE	Enter Number of Bottles Sent to Lab	1
CHL-CORR-W CHL-SWITE-W					
Group: B	Bottle Type: P-1L	# of Bottles: 1	Preservative: ICE	Enter Number of Bottles Sent to Lab	1
TURBIDITY W-ALK W-CL-IC W-COLOR W-F W-SO4-IC W-TDS W-TSS					
Group: B	Bottle Type: P-500ML	# of Bottles: 1	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: 1	Preservative: ICE-FLTR	Enter Number of Bottles Sent to Lab	1
W-PO4-F					

ALGAL ID RANKS 3+4 1 50ML FORMALIN
 GROUP C " RANKS 5 1 50ML FORMALIN
 " RANKS 6 1 50ML FORMALIN



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One box must be checked.

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Shipper's Declaration
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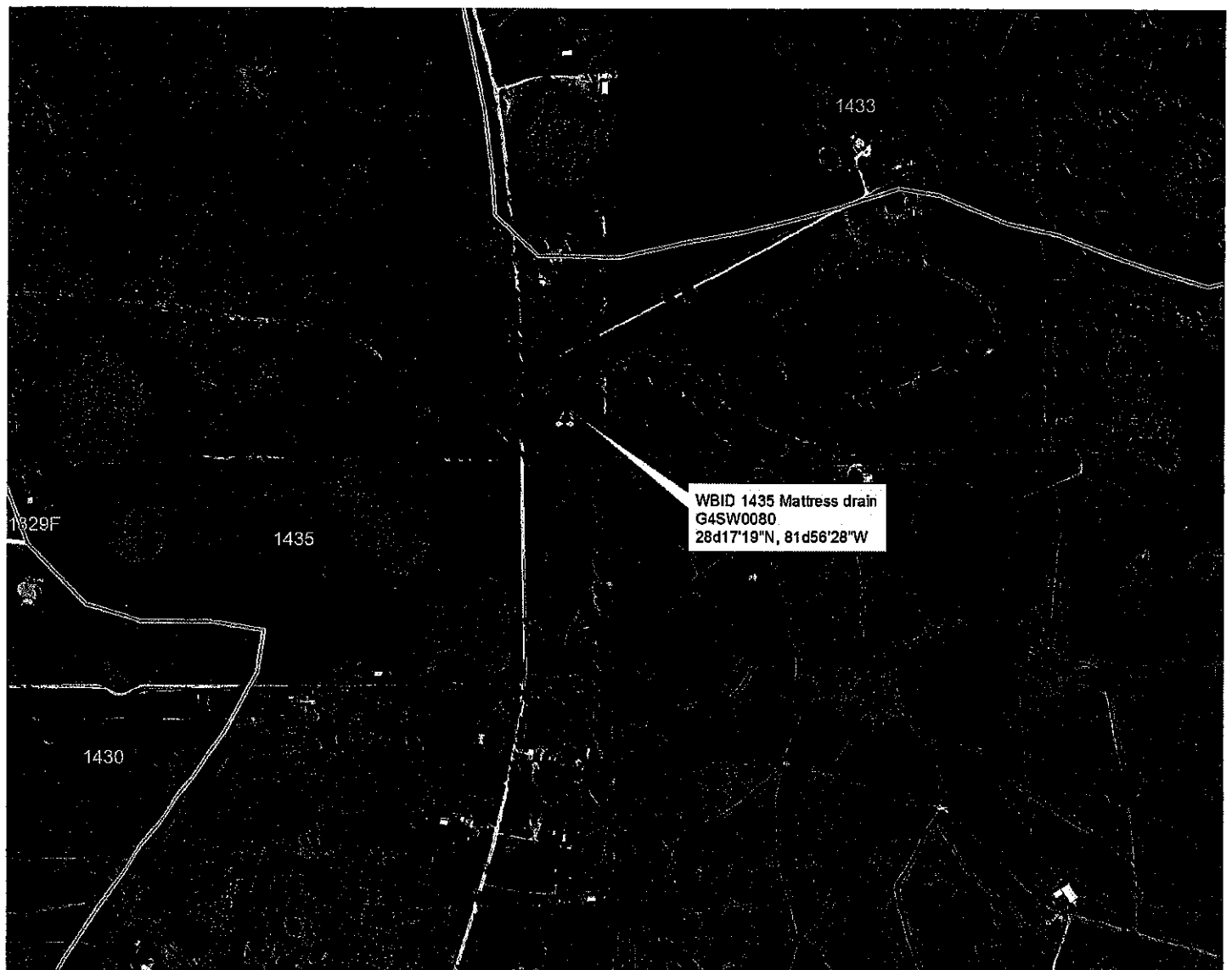
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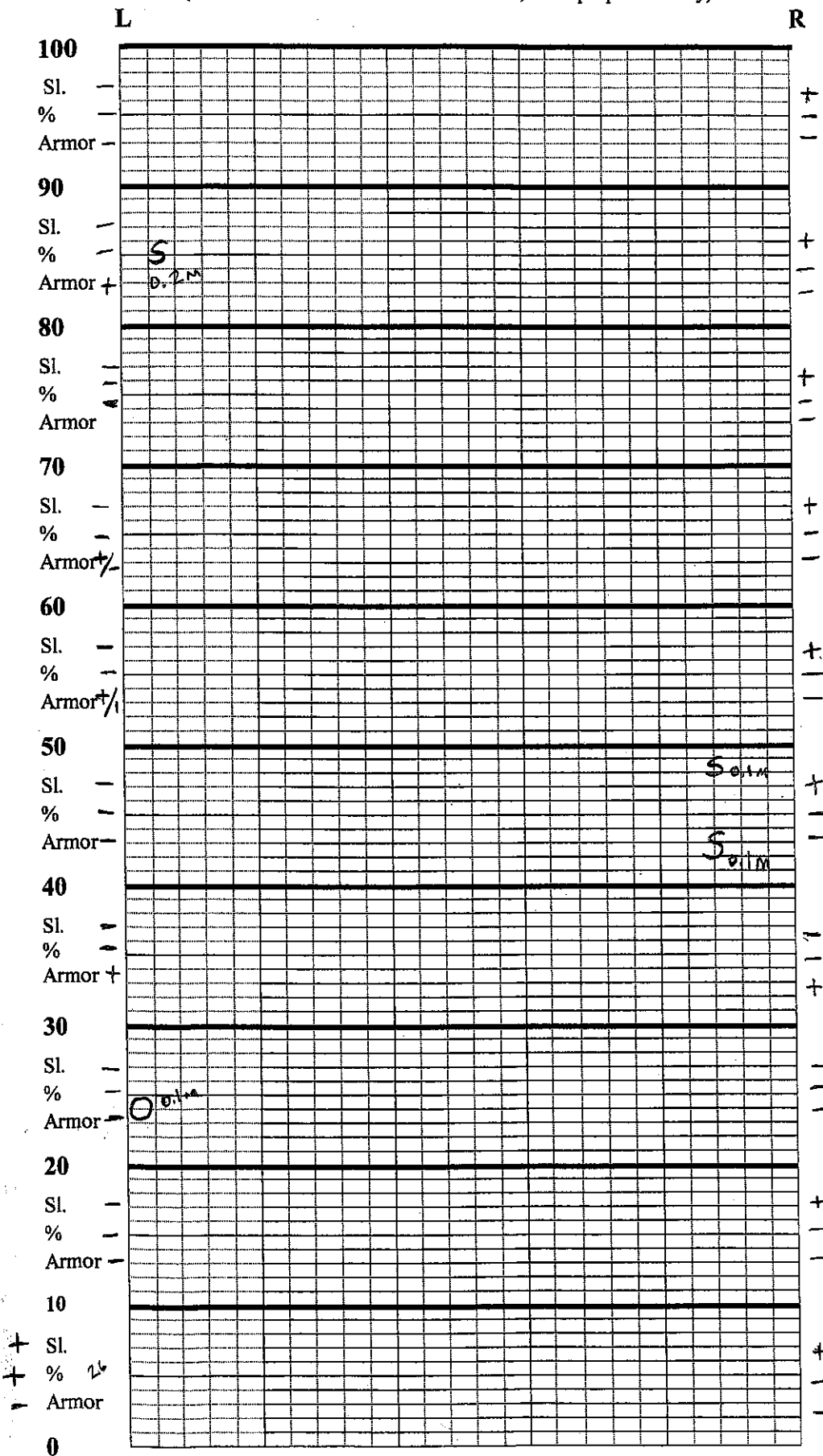


STATION NAME			
STATION_ID	G4SW0080		
SITE_NAME	Mattress Drain		
G-NUMBER	G4SW0080		
LAT	28d17'19"N		
LONG	81d56'28"W		
WATER BODY	Stream		
COUNTY	Polk		
SAMPLES NEEDED/SUITE	10 A-Kits		
ADDITIONAL SAMPLES	5 DO		
WBID	1435		
WATER BASIN	Withlacoochee		
PARAMETERS OF CONCERN			
BIOLOGY NEEDS	2 SCI Min.		

Stream/River Habitat Sketch Sheet, Form FD 9000-4 (March07, 2013)

Length of grid represents 100 m of stream (not linear meters).

(Horizontal scale is double vertical scale, draw proportionately).



Location: MATTRESS DRAIN

645W0080

Date: 01/26/14

Samplers: J. ASHTON

S. CHUNGEMAN

A. SALMERON

Substrates: Code key, draw proportionate habitat abundance. %



Snags



Roots/undercut banks



Leaf Packs (or mats)



Macrophytes



Rock



Total observed



Pools Range expected

Velocity measured at 50 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.

1 sec per 1 m	1m/s	sec	m/s
2	0.5	12	0.08
3	0.33	13	0.076
4	0.25	14	0.071
5	0.2	15	0.066
6	0.16	16	0.062
7	0.14	17	0.058
8	0.12	18	0.055
9	0.11	19	0.052
10	0.1	20	0.052
11	0.09	21	0.047
22	0.045	NO	FLOW

Prod. hab	1	2	3	4	5
Sweeps (Maj)	10	7	5	4	3
Sweeps (Min)	10	6	5	4	5

DEP-SOP-001/01: Form FD 9000-5
STATE OF FLORIDA, DEPARTMENT OF ENVIRONMENTAL PROTECTION
STREAM/RIVER HABITAT ASSESSMENT FIELD SHEET

SUBMITTING AGENCY CODE: <u>Z1ELTPA</u>		STORET STATION NUMBER: <u>G4SW0080</u>	DATE (MM/DD/YY): <u>01/26/16</u>	RECEIVING BODY OF WATER: <u>WITTLACOOCHEE</u>
SUBMITTING AGENCY NAME: <u>FOEP</u>				
REMARKS:	COUNTY: <u>POLK</u>	LOCATION: <u>MATRESS DRAW</u>	FIELD ID/NAME: <u>G4SW0080</u>	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more major productive habitats present (snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock)	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags)	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered
Substrate Diversity <u>1</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 <u>1</u>
Substrate Availability <u>1</u>	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 <u>1</u>
Water Velocity <u>3</u>	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 <u>3</u> 2 1
Habitat Smothering <u>1</u> ----- Primary Score <u>6</u>	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 <u>1</u>
Secondary Habitat Components	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks.	Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered.	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area.	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks.
Artificial Channelization <u>6</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 <u>6</u>	5 4 3 2 1
Bank Stability Right Bank <u>4</u> Left Bank <u>2</u> <u>6</u>	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the 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 <u>4</u>	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas. 3 <u>2</u> 1
Riparian Buffer Zone Width Right Bank <u>9</u> Left Bank <u>15</u> <u>6</u>	Width of vegetation greater than 18 m 10 <u>9</u>	Width of vegetation >12 to 18m 8 7 <u>6</u>	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 <u>4</u> Left Bank <u>8</u> <u>4</u> ----- Secondary Score <u>35</u>	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 <u>4</u>	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). 3 2 1

41 **TOTAL SCORE**

Date: <u>01/26/2016</u>	Analyst: <u>J. ASHTON, S. CUNGERMAN, A. SALMERON</u>	Signature: 
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DEP-SOP-001/01: Form FD 9000-3 (9/19/12)
PHYSICAL/CHEMICAL CHARACTERIZATION FIELD SHEET

SAMPLE ID 645W0080 ORG ID 21KLTAA LATITUDE _____
 COUNTY Polk STORET # 645W0080 LONGITUDE _____
 DATE 1-26-16 TIME _____ SAMPLING AGENCY FAEA
 SITE NAME MATTRESS CRAIN
 FIELD ID/NAME _____ RECEIVING BODY OF WATER WITTLICOCREEK

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>30</u> Silviculture <u> </u> Field/Pasture <u>70</u> Agricultural <u> </u> Residential <u> </u> Commercial <u> </u> Industry <u> </u> Other (Specify) <u> </u>								Landscape Development Intensity Index (LDI) <u> </u>	
Local Watershed Erosion (select one): ☐ None ☒ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution: ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy						Typical Width (m) Depth (m)/Velocity (m/sec) Transect <u>6</u> m wide <u> </u> m/s <u>0.05</u> m/s <u> </u> m/s <u> </u> m deep <u>0.2</u> m deep <u> </u> m deep			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>418</u> Right Bank: <u>718</u>				Hydrologic Modification Score (per FT 3101) <u>7</u>					
High Water Mark: <u>0.2</u> + <u>1.0</u> = <u>1.2</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☐ No					
Artificially ☐ No ☐ Mostly recovered, more sinuous Channelized: ☒ 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 Sand Smothering: None ☒ Slight ☐ Moderate ☐ Severe ☐ Silt Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐ Algae Smothering: None ☐ Slight ☐ Moderate ☐ Severe ☒
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SUBSTRATE TYPE Assessment Tool: ☐ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon <table border="1"> <thead> <tr> <th></th> <th>% Coverage</th> <th># Times Sampled</th> <th>PERI # Times Sampled</th> </tr> </thead> <tbody> <tr><td>Woody Debris (Snags)</td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> <tr><td>Undercut Banks / Roots</td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> <tr><td>Leaf Packs or Mat</td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> <tr><td>Aquatic Vegetation</td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> <tr><td>Rock or Shell Rubble..</td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> <tr><td>Sand.....</td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> <tr><td>Mud / Muck / Silt</td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> <tr><td>Other</td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> <tr><td>Other</td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> </tbody> </table>					% Coverage	# Times Sampled	PERI # Times Sampled	Woody Debris (Snags)	<u> </u>	<u> </u>	<u> </u>	Undercut Banks / Roots	<u> </u>	<u> </u>	<u> </u>	Leaf Packs or Mat	<u> </u>	<u> </u>	<u> </u>	Aquatic Vegetation	<u> </u>	<u> </u>	<u> </u>	Rock or Shell Rubble..	<u> </u>	<u> </u>	<u> </u>	Sand.....	<u> </u>	<u> </u>	<u> </u>	Mud / Muck / Silt	<u> </u>	<u> </u>	<u> </u>	Other	<u> </u>	<u> </u>	<u> </u>	Other	<u> </u>	<u> </u>	<u> </u>	WATER QUALITY <table border="1"> <thead> <tr> <th></th> <th>Depth (M)</th> <th>Temp. (°C)</th> <th>pH (SU)</th> <th>D.O. (MG/L)</th> <th>D.O. (%)</th> <th>Cond. (UMHO/CM)</th> <th>Salinity (PPT)</th> <th>SECCHI (M)</th> </tr> </thead> <tbody> <tr><td>Top:</td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u>0.2</u></td></tr> <tr><td>Mid:</td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td>☒ VOB</td></tr> <tr><td>Bottom</td><td><u>0.2</u></td><td><u>15.7</u></td><td><u>4.8</u></td><td><u>8.2</u></td><td><u>82</u></td><td><u>309</u></td><td><u>0.15</u></td><td><u>0.2</u></td></tr> </tbody> </table> Meter ID: <u> </u>									Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)	Top:	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>0.2</u>	Mid:	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	☒ VOB	Bottom	<u>0.2</u>	<u>15.7</u>	<u>4.8</u>	<u>8.2</u>	<u>82</u>	<u>309</u>	<u>0.15</u>	<u>0.2</u>
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Top:	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>0.2</u>																																																																															
Mid:	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	☒ VOB																																																																															
Bottom	<u>0.2</u>	<u>15.7</u>	<u>4.8</u>	<u>8.2</u>	<u>82</u>	<u>309</u>	<u>0.15</u>	<u>0.2</u>																																																																															
				Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐				Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ 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 <table border="1"> <thead> <tr> <th></th> <th>Absent</th> <th>Rare</th> <th>Common</th> <th>Abundant</th> </tr> </thead> <tbody> <tr><td>Periphyton:</td><td>☐</td><td>☐</td><td>☐</td><td>☒</td></tr> <tr><td>Fish:</td><td>☒</td><td>☐</td><td>☐</td><td>☐</td></tr> <tr><td>Aquatic Plants:</td><td>☐</td><td>☒</td><td>☐</td><td>☐</td></tr> <tr><td>Iron/Sulfur Bacteria:</td><td>☒</td><td>☐</td><td>☐</td><td>☐</td></tr> </tbody> </table>					Absent	Rare	Common	Abundant	Periphyton:	☐	☐	☐	☒	Fish:	☒	☐	☐	☐	Aquatic Plants:	☐	☒	☐	☐	Iron/Sulfur Bacteria:	☒	☐	☐	☐	System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐ _____																																																										
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WEATHER CONDITIONS / NOTES: <u>COOL, PARTLY CLOUDY</u> ☐ The antecedent hydrologic conditions have been met to my best knowledge.																																																																																							

SAMPLING TEAM Judy Ashton, S. Clingerman, Ashley Salmeron **SIGNATURE:** Judy Ashton **DATE:** 1-26-16

Guidelines for Hydrological Disturbance Scoring

This gradient rating is for human disturbances, not natural events (e.g., hurricanes, extreme droughts).

Best 1-2 points	Flow regime as naturally occurs (slow and fairly continual release of water after rains), few impervious surfaces in watershed; high connectivity with ground water and surface features delivering water (e.g., sandhills, wetlands; no ditches, berms, etc.)
Slight disturbance 3-4 points	Flow regime minimally changed; some water withdrawals; some wetland drainage, some impervious surfaces in watershed, some ditching
Moderately altered 5-6 points	Flow regime moderately altered; hydrograph moderately flashy (scouring after rain events with subsequent reductions in flow), groundwater pumping evident; much wetland drainage, topographic alterations reduce natural water input; more impervious surfaces throughout watershed, dams/control structures change normal water delivery schedule
Poor 7-8 points	Flow regime highly altered; hydrograph very flashy (scouring after rain events with subsequent reductions in flow; leading to stagnant or dry conditions, related to large amounts of impervious surfaces and/or ditching throughout watershed); water withdrawals & impoundments/control structures severely alter flows, large amounts of impervious surfaces
Very poor 9-10 points	Flow regime entirely human controlled; hydrograph very flashy (scouring after rain events with subsequent reductions in flow, leading to stagnant or dry conditions, related to impervious surfaces and ditching throughout watershed); water withdrawals & impoundments fundamentally alter the nature of the ecosystem

Site: MATRESS DRAINCounty: DOLKDate: 01/26/16Investigators: J. ASHTON S. CHUNG LIAAN A. SALMERON

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N - 6)	Canopy Cover	Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N - 6)	Canopy Cover	Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N - 6)	Canopy Cover
0	1	4		40	1	4		80	1	6	
	2	4			2	5			2	5	
	3	4			3	5			3	5	
	4	4			4	5			4	3	
	5	4	26		5	5	48		5	5	61
	6	4			6	3			6	4	
	7	4			7	N			7	5	
	8	4			8	4			8	5	
	9	4			9	5			9	5	
10	1	5		50	1	3		90	1	4	
	2	5			2	4			2	5	
	3	5			3	4			3	5	
	4	4			4	5			4	5	
	5	4	34		5	6	36		5	5	46
	6	4			6	5			6	3	
	7	4			7	5			7	N	
	8	5			8	5			8	3	
	9	3			9	5			9	N	
20	1	6		60	1	6		100	1	N	
	2	5			2	4			2	4	
	3	4			3	4			3	4	
	4	3			4	3			4	N	
	5	6	18		5	5	26		5	N	2
	6	6			6	N			6	N	
	7	5			7	4			7	N	
	8	5			8	4			8	N	
	9	4			9	5			9	N	
30	1	N		70	1	5					
	2	3			2	5					
	3	5			3	5					
	4	5			4	5					
	5	5	61		5	5	44				
	6	4			6	5					
	7	6			7	5					
	8	6			8	5					
	9	6.5			9	5					

# points ranked 4-6	80
total points assessed	99
% points ranked 4-6	81

Secchi depth: 0.2

Check accompanying data collected at same site/date.

Algal mat sample	☒
Habitat Assessment	☒
Linear Veg. Survey	☒
SCI/Biorecon (circle 1)	
Water sample	☒
RQ: <u>2016-01-25-48</u>	

Algal Thickness Rank

N	rough, no algae; slimy, algae to 1 mm
3	>1mm - 6 mm
4	>6 - 20 mm
5	>20 mm - 10 cm
6	>10 cm

Record "N" for points deeper than the Secchi depth; algae are presumed absent. Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. Note if thickness estimated for deep points which can be seen but not reached.

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 an 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%.

