



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

PAGE 1 OF

Data Qualified?

Yes / No

March 2017

STORET Station Name: Unnamed Drain @350m E of S. Econ Trail

Date: 6 / 13 / 2017

(mm/dd/yyyy)

STORET Station ID: G2CE0124

WBID: 3046

Latitude: 28.4917

County: Orange RQ - 2017-06-19-41

ORG ID: 21FLCEN

Longitude: -81.25113

(Decimal Degrees)

Receiving Body of Water: Econ River

Field ID: G2CE0124

(Decimal Degrees)

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Terry Riordan		☒	☒	☒	☒	☒
Leif Boman		☒	☒	☒	☒	☒

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

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

Water Level: Dry / Pooled / Low / Normal / High / Flooded						Matrix: Fresh / Marine / DI											
Meter ID# Betty / 67						Photos: Yes / No						Tide Falling: Yes / No / NA					
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°)							
EST	1125	0.3	0.4	6.0	76	6.8	0.1	0.4(5)	134	27.2							
		.	.	.	.	.	.	.	.	.							

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

SBIO ID Numbers: SBIO-ID: 77712 RPS-ID: 8714 Macrophyte-ID: 10536 LIMS#: 1906143

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			☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO2			☐ <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-CI-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 ☐ Enteroc ☐ PCR-FILTER	☐ Ice			
Tracers	☐ W-SUCC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-SUC-AA-R	☐ Ice			
	☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH	☐ Other			

Notes:

BOTTLE GROUP A

(B = ALGAL ID)

RQ-2017-06-19-41
Unnamed Drain @
300m E of S. Econ Trail
Date: 06/13/2017
Time:

G2CE0124

Field ID ↑

STORET ↓

G2CE0124

Signature: J Me

Date: 6 / 13 / 2017

Field Parameters Entered into LIMS: KMW 7/21/17
(Initials/Date)

Field Parameters QC in LIMS: (Initials/Date)

Date Migrated to STORET:

Field Sheets Scanned/Saved:

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

SAMPLE ID _____ ORG ID 21 F L C E W LATITUDE 28.4917
 COUNTY Orange STORET # G2CE0124 LONGITUDE -81.25113
 DATE 6/13/17 TIME 1125 SAMPLING AGENCY EDDP/CEROC
 SITE NAME Unnamed Drain @ 350m E of S. Econ Trl
 FIELD ID/NAME G2CE0124 RECEIVING BODY OF WATER Econ River

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) ☐ ☐ ☐ ☐ ☐ <u>100</u> ☐ ☐ ☐								Landscape Development Intensity Index (LDI) ☐	
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 ☐ m wide <u>6.5</u> m wide ☐ m/s <u>0.33</u> m/s ☐ m/s ☐ m deep <u>0.2</u> m deep ☐ m deep <u>0.4</u> m/s			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>1</u> m Right Bank: <u>2</u> m				Hydrologic Modification Score (per FT 3101) ☐					
High Water Mark: <u>1.0</u> + <u>0.2</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 ☐ Sew age ☐ 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 ☐																																																																														
SUBSTRATE TYPE Assessment Tool: ☐ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon <table border="1"> <thead> <tr> <th></th> <th>% Coverage</th> <th>INVERT # Times Sampled</th> <th>PERI # Times Sampled</th> </tr> </thead> <tbody> <tr><td>Woody Debris (Snags)</td><td>☐</td><td>☐</td><td>☐</td></tr> <tr><td>Undercut Banks / Roots</td><td>☐</td><td>☐</td><td>☐</td></tr> <tr><td>Leaf Packs or Mat</td><td>☐</td><td>☐</td><td>☐</td></tr> <tr><td>Aquatic Vegetation</td><td>☐</td><td>☐</td><td>☐</td></tr> <tr><td>Rock or Shell Rubble..</td><td>☐</td><td>☐</td><td>☐</td></tr> <tr><td>Sand.....</td><td>☐</td><td>☐</td><td>☐</td></tr> <tr><td>Mud / Muck / Silt</td><td>☐</td><td>☐</td><td>☐</td></tr> <tr><td>Other</td><td>☐</td><td>☐</td><td>☐</td></tr> <tr><td>Other</td><td>☐</td><td>☐</td><td>☐</td></tr> </tbody> </table>				% Coverage	INVERT # Times Sampled	PERI # Times Sampled	Woody Debris (Snags)	☐	☐	☐	Undercut Banks / Roots	☐	☐	☐	Leaf Packs or Mat	☐	☐	☐	Aquatic Vegetation	☐	☐	☐	Rock or Shell Rubble..	☐	☐	☐	Sand.....	☐	☐	☐	Mud / Muck / Silt	☐	☐	☐	Other	☐	☐	☐	Other	☐	☐	☐	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. Sat (%)</th> <th>Cond. (UMHO/CM)</th> <th>Salinity (PPT)</th> <th>SECCHI (M)</th> </tr> </thead> <tbody> <tr><td>Top:</td><td><u>0.3</u></td><td><u>27.2</u></td><td><u>6.8</u></td><td><u>6.0</u></td><td><u>76</u></td><td><u>134</u></td><td><u>0.1</u></td><td><u>0.2</u></td></tr> <tr><td>Mid:</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td><td>☒ VOB</td></tr> <tr><td>Bottom</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td></tr> </tbody> </table> Meter ID: <u>Betty/67</u> TOTAL DEPTH: <u>0.4</u> m							Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)	Top:	<u>0.3</u>	<u>27.2</u>	<u>6.8</u>	<u>6.0</u>	<u>76</u>	<u>134</u>	<u>0.1</u>	<u>0.2</u>	Mid:	☐	☐	☐	☐	☐	☐	☐	☒ VOB	Bottom	☐	☐	☐	☐	☐	☐	☐	☐
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			Water Odors Normal ☒ Petroleum ☐ Sew age ☐ 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>Not Obs.</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>				Not Obs.	Rare	Common	Abundant	Periphyton:	☐	☐	☒	☐	Fish:	☐	☐	☒	☐	Aquatic Plants:	☐	☐	☒	☐	Iron/Sulfur Bacteria:	☒	☐	☐	☐	System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐ _____ AMBIENT FIELD CONDITIONS / NOTES: <u>PH/Cldy 50's</u> ☐ The antecedent hydrologic conditions have been met to my best know ledge.																																																								
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SAMPLING TEAM <u>Terry Piondan / Leif Boman</u>			SIGNATURE : <u>[Signature]</u>			DATE : <u>6-13-17</u>																																																																														

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Unnamed Drain @ 350m
EOPS Econ Trl

County: Orj

Date: 6-13-17

Investigators: Terry R. Smith / Leif Bonner

STORET Station Number: G2CE0124

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	3			60	1	3		
	2	3				2	3		
	3	2				3	2		
	4	2				4	2		
	5	2		0		5	2		0
	6	2				6	2		
	7	2				7	2		
	8	2				8	2		
	9	3				9	3		
10	1	3			70	1	3		
	2	3				2	3		
	3	2				3	2		
	4	2				4	2		
	5	2		0		5	2		0
	6	2				6	2		
	7	2				7	2		
	8	2				8	2		
	9	2				9	2		
20	1	2			80	1	2		
	2	3				2	2		
	3	2				3	2		
	4	2				4	2		
	5	2		0		5	2		0
	6	2				6	2		
	7	2				7	2		
	8	3				8	2		
	9	5				9	2		
30	1	3			90	1	3		
	2	3				2	3		
	3	2				3	2		
	4	2				4	2		
	5	2		0		5	2		0
	6	2				6	2		
	7	2				7	2		
	8	2				8	3		
	9	4				9	3		
40	1	3			100	1	2		
	2	3				2	2		
	3	2				3	2		
	4	2				4	2		
	5	2		0		5	2		0
	6	2				6	2		
	7	2				7	2		
	8	2				8	2		
	9	2				9	2		
50	1	2							
	2	2							
	3	2							
	4	2							
	5	2		0					
	6	2							
	7	2							
	8	2							
	9	2							

Secchi depth 0.4
Estimated? N

points ranked 4-6 7
total points assessed 99
% points ranked 4-6 7

(Exclude X's)

Check accompanying data collected at same site/date.

Algal mat sample ☐
Linear Veg Survey ☒
Habitat Assessment ☒
SCI/Biorecon ☐
Water sample ☒

RQ- 2017-06-19-41

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

(> 3 considered smothered)

(N to 1 mm)

(3) 6mm

(4) 20mm

(5) 10cm

(6)

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%.

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

Waterbody: Unnamed Drain @ 380m E of S Date: 6-13-17 County: Orl Storet Number: GZCE0124

Analyst: Terry Riordan/L. Berman Econ Trl Signature: [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 m² 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										Specimen collected (check)	HERBACEOUS SPECIES	Meter Mark										Specimen collected (check)
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100			0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	
<i>Alternanthera philoxeroides</i>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		<i>Micranthemum glomeratum</i>				✓	✓						
<i>Bacopa caroliniana</i>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		<i>Micranthemum umbrosum</i>											
<i>Bacopa monnieri</i>												<i>Myriophyllum aquaticum</i>											
<i>Bidens mitis</i>												<i>Najas guadelupensis</i>											
<i>Boehmeria cylindrica</i>												<i>Nuphar luteum</i>											
<i>Centella asiatica</i>												<i>Orontium aquaticum</i>											
<i>Ceratophyllum demersum</i>												<i>Panicum hemitomon</i>		✓	✓			✓	✓	✓	✓		
<i>Chara</i>												<i>Panicum repens</i>	✓	✓	✓	✓	✓	✓	✓	✓	✓		
<i>Cicuta maculata</i>												<i>Panicum rigidulum</i>											
<i>Cladium jamaicense</i>												<i>Pistia stratioides</i>											
<i>Colocasia esculenta</i>												<i>Polygonum glabra</i>											
<i>Commelina diffusa</i>	✓	✓	✓	✓	✓	✓		✓	✓			<i>Polygonum hydropiperoides</i>					✓						
<i>Commelina virginica</i>												<i>Polygonum punctatum</i>	✓	✓									
<i>Crinum americanum</i>												<i>Pontedaria cordata</i>											
<i>Diodia virginiana</i>												<i>Potamogeton illinoensis</i>											
<i>Eichhornia crassipes</i>												<i>Ruellia simplex</i>											
<i>Eleocharis (wispy viviparous)</i>												<i>Sacciolepis striata</i>											
<i>Hydrilla verticillata</i>	✓	✓						✓				<i>Sagittaria kurziana</i>											
<i>Hydrocotyle</i>		✓	✓	✓				✓	✓			<i>Sagittaria lancifolia</i>											
<i>Hygrophila polysperma</i>	✓	✓	✓	✓		✓	✓	✓	✓	D		<i>Sagittaria latifolia</i>											
<i>Hymenocallis</i>												<i>Salvinia minima</i>											
<i>Lachnanthes caroliniana</i>												<i>Samolus parviflora</i>											
<i>Landoltia punctata</i>												<i>Saururus cernuus</i>											
<i>Lemna</i>												<i>Sparganium americanum</i>											
<i>Limnophila sessiflora</i>												<i>Typha</i>											
<i>Ludwigia leptocarpa</i>												<i>Vallisneria americana</i>											
<i>Ludwigia palustris</i>												<i>Zizania aquatica</i>											
<i>Ludwigia peruviana</i>						✓						<i>Rumex</i>	✓	✓	✓	✓	✓			✓			
<i>Ludwigia repens</i>												<i>Utricularia nutans</i>	✓	✓	✓	✓	✓	✓	✓	✓	✓		
<i>Luziola fluitans</i>												<i>Echinocloa walteri</i>	✓			✓			✓	✓	✓		
<i>Cyperus lecontei</i>	✓	✓										<i>Eupatorium capillifolium</i>	✓	✓		✓				✓			
<i>Sileneus marginatus</i>	✓											<i>Cyperus odoratus</i>	✓	✓		✓				✓	✓		
												<i>Cardamine pensylvanica</i>				✓	✓		✓				
												<i>Widelia</i>					✓	✓					
												<i>Phyla nodiflora</i>	✓	✓	✓								
If no Dominant or Co-Dominant were selected, indicate with "X"	X	X	X	X	X	X	X	X	X	D													
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																							

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

SAMPLING AGENCY: <u>FDOP - CEROC</u>		STORET STATION NUMBER: <u>G2CE0124</u>	DATE (MM/DD/YY): <u>06/13/17</u>	RECEIVING BODY OF WATER: <u>Egan Riv.</u>
REMARKS:	COUNTY: <u>ORANGE</u>	LOCATION: <u>Unnamed drain @ 350m E of S. Egan Trl</u>		FIELD ID/NAME: <u>G2CE0124</u>

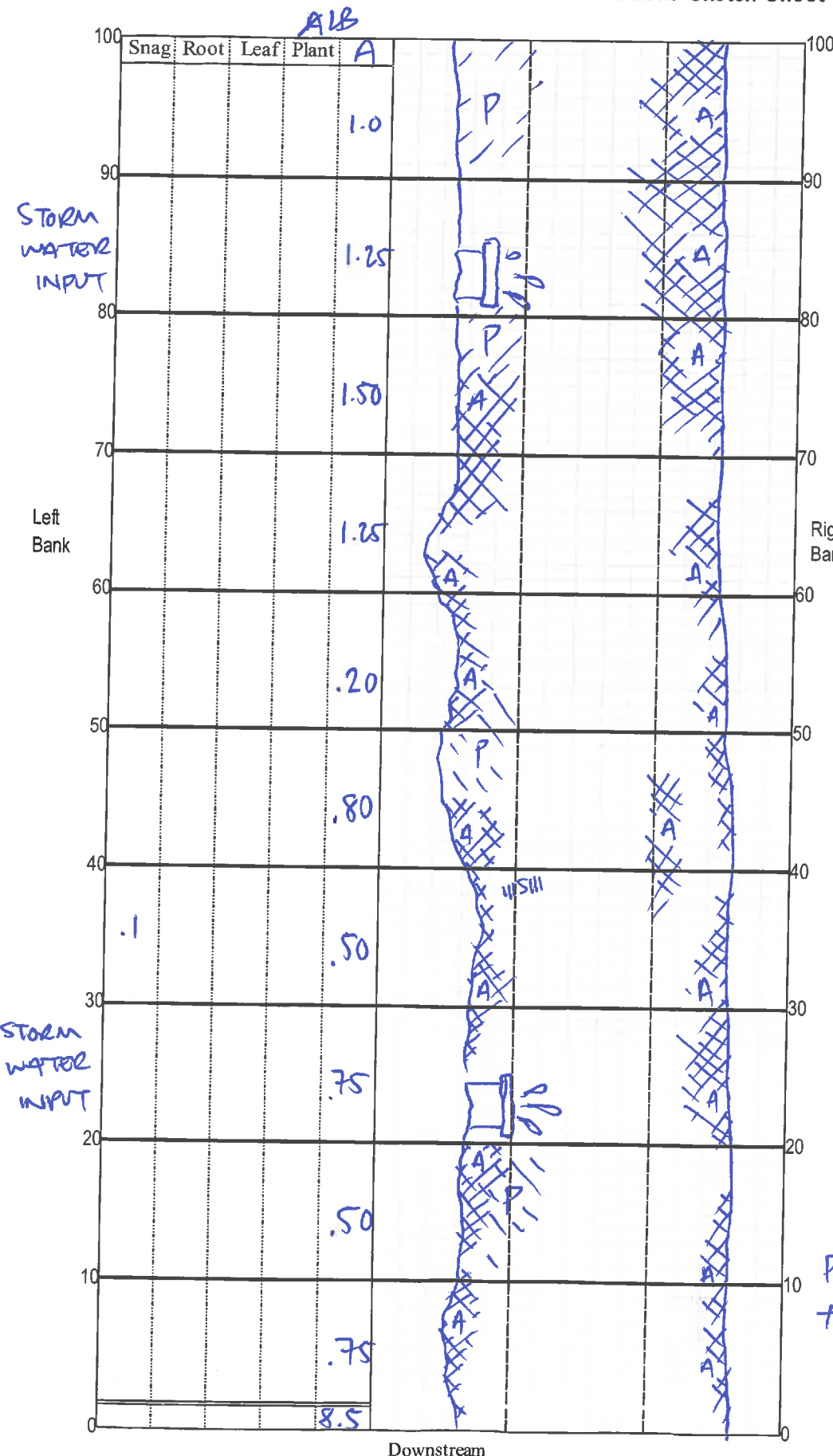
Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock]	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh 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>3</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>2</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 1
Water Velocity <u>20</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 3 2 1
Habitat Smothering <u>16</u> ----- Primary Score <u>41</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 1
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>4</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability	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.	Only meets 2 of the 3 requirements for optimal bank stability.	Only meets 1 of the 3 requirements for optimal bank stability.	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas.
Right Bank <u>6</u> Left Bank <u>6</u>	10 9	8 7 6	5 4	3 2 1
Riparian Buffer Zone Width	Width of vegetation greater than 18 m	Width of vegetation >12 to 18m	Width of vegetation 6 to 12 m. human activities close to system	Less than 6 m of buffer zone due to intensive human activities
Right Bank <u>1</u> Left Bank <u>1</u>	10 9	8 7 6	5 4	3 2 1
Riparian Zone Vegetation Quality	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.	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed.	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious.	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions).
Right Bank <u>3</u> Left Bank <u>2</u> ----- Secondary Score <u>23</u>	10 9	8 7 6	5 4	3 2 1

64

TOTAL SCORE

Date: <u>6/13/17</u>	Analyst: <u>Leif Boman/Kerry Riordan</u>	Signature: <u>[Signature]</u>
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



Location: **UNNAMED DRAIN @ 350m EAST OF S. ELM TRAIL**

Date: **6/13/17**

Sampler: **Terry Riordan / Kif Roman**

100 m: Latitude	
Longitude	
0 m: Latitude	
Longitude	
Substrates: Code key, draw proportionate habitat abundance. %	
☒ S	Snags .02
☐ R	Roots/undercut banks
☐ L	Leaf Packs (or mats)
☒ A	Aquatic Macrophytes 1.3
☐	
☐	
☒ P	Pools total # observed = 4 (shallow) # range expected = 1-3
Average width 6.5 m	
Average depth 6.5 m 0.27K	
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.	

Pools are shallow & due to obstructions.

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