



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAGE ____ OF ____

Hague US441

field ID



G1NE0631

Data Qualified?

Yes / No

STORET Station Name:

Date
Time

storet ID

STORET Station ID:

WBID: 3678

RQ-2016-10-24-17

21030152
ORG ID: 44155

Latitude: 29.770889

(Decimal Degrees)

Longitude: 82.429583

(Decimal Degrees)

Receiving Body of Water:

Field ID:

County: Alachua

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Nicole Frederick					X	X			
Jeremy Parrish					X		X	X	

Sampling Equipment	
☐ Sample Container	☐ Van Dorn
☐ Carboy	☐ Syringe
☐ Dipper	☐ Other
Equipment ID	

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

Water Level:	Dry	Low	Normal	High	Flooded	Matrix:	Fresh	Marine	DJ	
Meter ID#	Yst #3					Photos:	Yes	No	NA	
Time	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	1205	0.10	0.2	8.59	95.0	7.94	0.22	0.2	458	19.90
CEN								8		

Biological Samples Collected:	None	HA	SCI	LVS	RPS	LVI	Other			
Parameter Suite	Parameter Methods						Preservation	Acid Lot#	Expiration	pH
Preserved Nutrients	☒ W-NH3 / ☒ W-NO2NO3 / ☒ W-TKN / ☒ W-TOC / ☒ W-S-A-TP						☒ Ice ☒ H2SO4	157449	12/16	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP						☐ Ice ☐ HNO3			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter						☒ Ice			
Chlorophyll	☒ CHLSUITE-W						☒ Ice			
BOD	☒ BOD-UNIN						☒ Ice NF			
Physical/Aggregate (Kit A)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CI-IC / W-COLOR / W-SO4-IC / W-TDS						☐ Ice			
Physical/Aggregate (Kit B)	☐ Alkalinity / W-F / W-TSS / TURBIDITY						☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC						☐ Formalin			
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococcus ☐ QPCR						☐ Ice			
Periphyton	☐ ALGAE-ID						☐ Ice			
Pesticides	☒ W-PSNP-TQ ☒ W-AHERB-AA ☐ W-PYR-AA-R						☐ Ice			
	☐ W-PC-AA-SF ☒ W-UHERB-AA ☒ W-GLYPH						☐ Other			

Notes:	Hague US441	field ID	storet ID	Date
Pesticide / pesticide DUP @ 1205 @ 1215		G1NE0631	21030152	10/31/16

Signature:	Field Parameters Entered into LIMS:	Field Parameters QC in LIMS:	Field Sheets Scanned/Saved:
Nicole R	11/7/16	11/7/16	11/7/16

field ID

SAMPLE ID

COUNTY

DATE

SITE NAME

FIELD ID/NAME

Tumblin Creek
above 14th

store ID

G1NE0856 10312016

G1NE0856

al Characterization Field Sheet

LATITUDE

LONGITUDE

SAMPLING AGENCY

29.63901

82.33837

Fnepe

RECEIVING BODY OF WATER

Pond Lake above Biven Am lake

RIPARIAN ZONE / STREAM FEATURES

Meter ID:

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

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

2 49 49

Landscape Development
Intensity Index (LDI)Local Watershed Erosion (select one): ☐ None ☐ Slight ☐ Moderate ☒ HeavyLocal Watershed NPS Pollution: ☐ No evidence ☐ Slight ☐ Moderate ☒ Heavy

Width of Riparian Vegetation (m) on Each Buffer Side

Left Bank: 6m Right Bank: 6m

Hydrologic Modification Score
(per FT 3101)

5-6

High Water Mark: 10.0 + 0.2 = 1.2
(m) (above present water level) (present depth) (above bed)

Artificially Impounded

☐ Yes ☒ No

Typical Width (m) Depth (m)/Velocity (m/sec) Transect

2 m wide

0.2 m/s

0.2 m deep

Artificially ☒ No☐ Mostly recovered, more sinuous

Canopy Cover %

☐ Open☐ Lightly Shaded (11-45%)Channelized: ☐ Some recovery☐ Recent, severe☒ 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 ☐

SUBSTRATE TYPE

Assessment Tool: ☒ SCI ☐ RPS ☐ LVS☐ LCI ☐ BioReconINVERT PERI
% # Times # Times
Coverage Sampled Sampled

Woody Debris (Snags) 1 5

Undercut Banks / Roots 1 5

Leaf Packs or Mat 21 3

Aquatic Vegetation

Rock or Shell Rubble 8 5

Sand 90 2

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: 0.2 21.5 7.87 7.4 84.7 363 0.17 0.2
Mid:
Bottom: 0.2 21.5 7.87 7.4 84.7 363 0.17 0.2System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify)Water Odors Normal ☒ Petroleum ☐
Sewage ☐ Chemical ☐ Other ☐Water Sample Taken? ☒ Yes ☐ NoSample Preserved? ☐ Yes ☐ No

Lot Number: Exp:

Algae Sample Taken? ☐ Yes ☒ NoSample Preserved? ☐ Yes ☐ No

Lot Number: Exp:

Water Surface Oils Normal ☐ Sheen ☐
Globs ☐ Slick ☐ Other ☐Color Tannic ☐ Green (Algae) ☐
Clear ☒ Other (Specify)Clarity Clear ☒ Slightly Turbid ☐
Turbid ☐ Opaque ☐

ABUNDANCE

Not Obs. Rare Common Abundant

Periphyton: ☐ ☒ ☐ ☐Fish: ☐ ☐ ☒ ☐Aquatic Plants: ☒ ☐ ☐ ☐Iron/Sulfur Bacteria: ☐ ☒ ☐ ☐

AMBIENT FIELD CONDITIONS / NOTES:

Hydrologic Disturbance Scoring ☐ 1-2 ☐ 3-4 ☒ 5-6 ☐ 7-8 ☐ 9-10☐ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM

SIGNATURE:

field ID



G1NE0856 10312016

Tumblin Creek
above 14th

storet ID



G1NE0856

Id Periphyton Survey Field Sheet

Date:

10/31/16

Investigators:

B. J. V. F.

STORET Station Number:

G1NE0856

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	96	60	1	N	N	96
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
10	1	N	N	96	70	1	N	N	96
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
20	1	N	N	96	80	1	N	N	96
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
30	1	N	N	92	90	1	N	N	95
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
40	1	N	N	95	100	1	N	N	96
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
50	1	N	N	96		1	N	N	
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	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 densimeter 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%.

ver Habitat Assessment Field Sheet

field ID



G1NE0856 10312016

Tumblin Creek
above 14th

storet ID



G1NE0856

ORET STATION NUMBER:

DATE (MM/DD/YY):

RECEIVING BODY OF WATER:

10/31/16

B. van Arman

LOCATION:

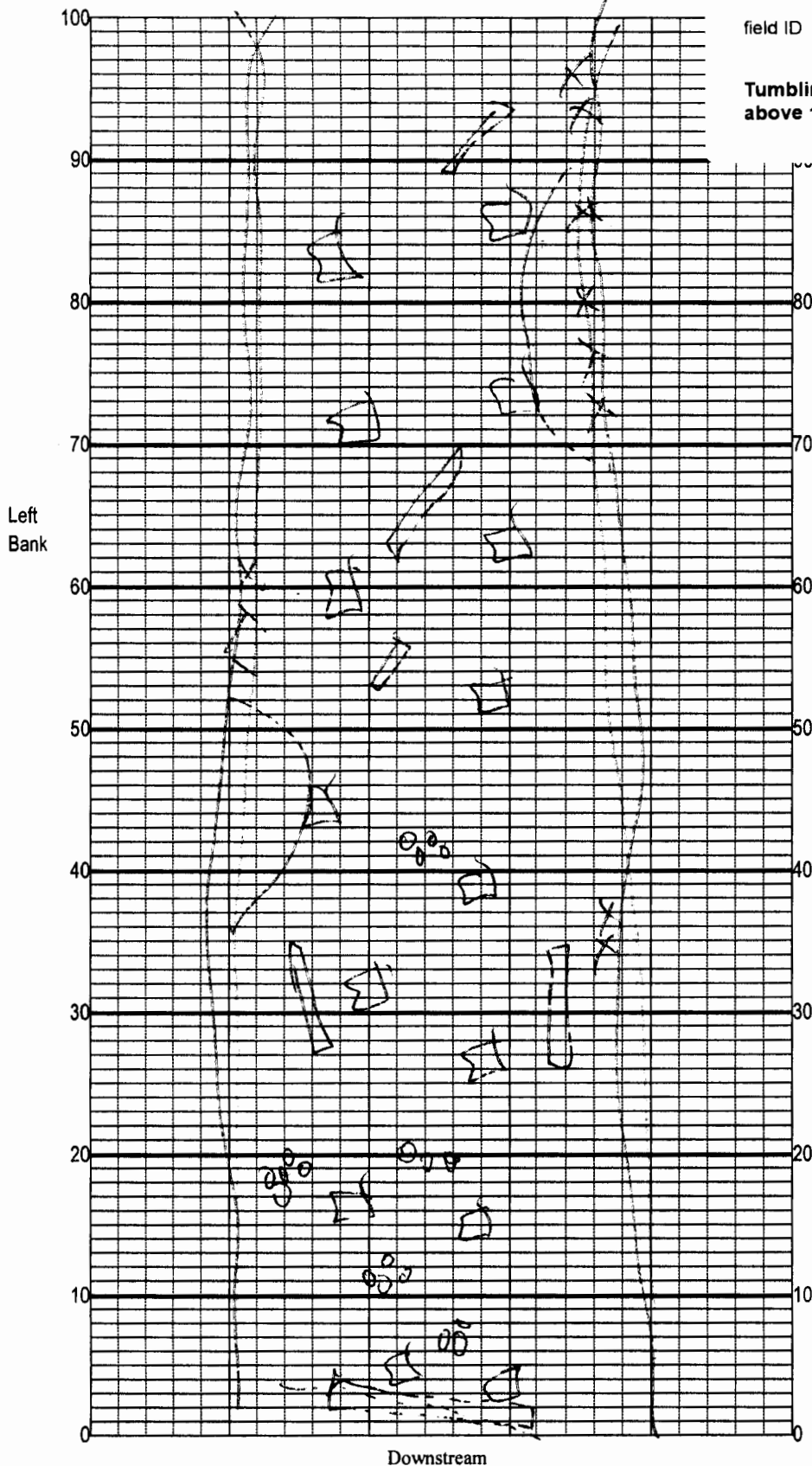
FIELD ID/NAME:

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <u>11</u> <u>8</u> <u>1</u>	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 <u>11</u>	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed 10 9 <u>8</u> 7 6	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered 5 4 3 2 1
Substrate Availability <u>8</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 <u>8</u> 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>14</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 <u>14</u> 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>12</u> Primary Score <u>42</u> <u>45</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 <u>12</u> 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 <u>18</u>	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. 20 19 <u>18</u> 17 16	Good sinuosity within old channelized area. Evidence of dredging 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 <u>3</u> Left Bank <u>3</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 4	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas. <u>3</u> 2 1
Riparian Buffer Zone Width Right Bank <u>4</u> Left Bank <u>4</u>	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 <u>4</u>	Less than 6 m of buffer zone due to intensive human activities 3 2 1
Riparian Zone Vegetation Quality Right Bank <u>5</u> Left Bank <u>5</u> Secondary Score <u>42</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. <u>5</u> 4	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). 3 2 1

86 84 87 TOTAL SCORE

Date: <u>10/31/16</u>	Analyst: <u>Jeremy Parnish</u>	Signature: <u>[Signature]</u>
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



field ID



G1NE0856 10312016

Tumblin Creek
above 14th

storet ID



G1NE0856

100 m: Latitude	_____
Longitude	_____
0 m: Latitude	_____
Longitude	_____
Substrates: Code key, draw proportionate habitat abundance.	
	Snags
	Roots/undercut banks
	Leaf Packs (or mats)
	Aquatic Macrophytes
	Rock
	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:

<2 M of Macrophytes was observed while doing the LVS? YES or NO

2 m wide

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



G1NE0856 10312016

**Tumblin Creek
above 14th**

storet ID



G1NE0856

AR VEGETATION SURVEY FIELD SHEET

SHEET 10/31/16
Store Number:

County:

Storet Number:

Signature:

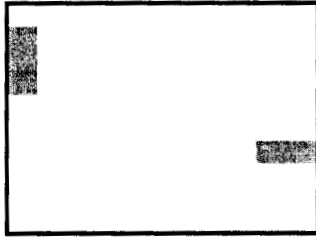
D" if dominant, and "C" if codominant (dominance only if 1 m² of taxa present). Note in

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.

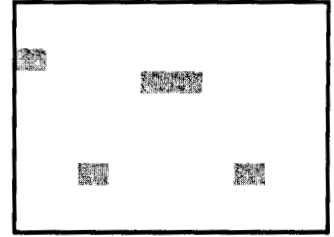
[illegible]

Percent Cover Categories for macrophytes in a 10 m segment of a stream 5 m wide

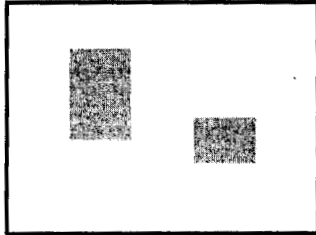
5% Macrophyte Coverage



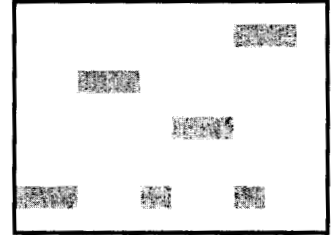
5% Macrophyte Coverage



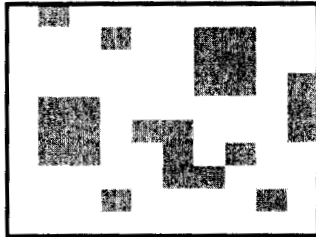
10% Macrophyte Coverage



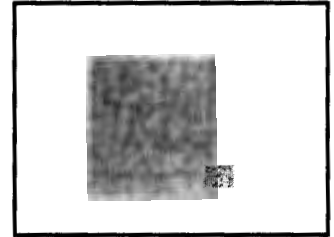
10% Macrophyte Coverage



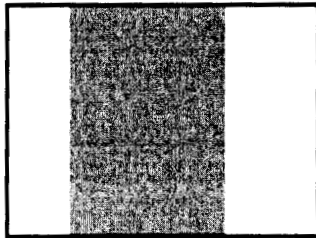
25% Macrophyte Coverage



25% Macrophyte Coverage



50% Macrophyte Coverage



50% Macrophyte Coverage

