



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name: Boiling Creek at Boat Launch

Date: 07/09/2019
(mm/dd/yyyy)

WIN/ Field ID: G4NW0385

WBID: 517

Latitude: 30.57895

County: Santa Rosa

ORG ID: 21FLPNS

Longitude: -86.90017
(Decimal Degrees)

Receiving Body of Water: Yellow River

RQ-2019- 02-11-27 07-08-34

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Frank Butler									
Matt Bearden									

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☒ Syringe	
☐ Dipper	☐ Other	
Depth Measured with YSI		
Equipment ID 155077		

Collection Method		
☒ Wading	☐ Canoe/Kayak	
☐ From Shore	☐ Electric Motor	
☐ Other	☐ Gasoline Motor	

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

Meter ID# 155077

Matrix: Fresh / Marine / DI

Photos: (Yes) / No

Flow: No Flow / Intestinal / (Flowing) / NA

Tide: Rising/ Falling/ Slack/ (NA)

Tide Times: High Low

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (µmhos/cm)	Temp. (C°)
EST	9:50		0.3	"S"	7.51	90.6	5.07	0.01	15.3	24.9
CEN	9:55	1.3	0.8		7.50	90.6	5.09	0.01	15.3	24.9

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

SBIO ID Numbers: (68) SBIO-ID: 79927 HA-ID: 16143 RPS-ID: 9398 Macrophyte-ID: 11423 LIMS#: 2101173

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H2SO4	SA8344070	12/10/19	☐ <2
Metals	☒ W-ICPMS ☒ W-ICP	☒ Ice ☐ HNO3	NA9099034	4/09/20	☐ <2
Filtered Nutrients	☒ W-P04-F ☒ Field Filtered 0.45 µm Filter	☒ Ice	15159049		
Chlorophyll	☒ CHL-SUITE-W	☒ Ice			
Physical/Aggregate (Fresh)	☐ Alkalinity / W-F / W-TSS / TURBIDITY / W-CL-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☒ MI-FW-QLDC	☒ Formalin			
Periphyton	☒ ALGAE-ID	☒ Ice			
Microbiology	☒ E-Coli ☐ F-Coli ☐ Enterococci	☒ Ice			
Molecular	☒ PCR-FILTER ☒ PCR-BacR ☐ PCR-GULL2 ☒ PCR-HF183 ☒ PCR-DG3 ☐ PCR-GFD	☒ Ice			
Tracers	☒ W-E8321-DI ☒ W-E8321-MS	☒ Ice			
Pesticides	☒ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-E8321-DI ☐ W-PCL-SQ-R ☐ W-E8321-MS ☐ W-CARB-AA	☒ Ice			
Phytoplankton	☐ DTY-QN-C ☐ PKD-QN-C				

Notes: RQ-2018-07-08-34
SBIO ID 79927

Field/WIN ID



G4NW0385

Location:

Boiling Creek at Boat Launch

Signature: Frank Butler

Date: 07/09/20

LIMS EVENT ID: WIN Import ID:

Enter Field Parameters, Verify Station ID In LIMS DMT: QC Station ID, Field Parameters In LIMS DMT:

Scan/Save Field Sheets Migrate Data to WIN: Verify Data In WIN:

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

SAMPLE ID 79927 ORG ID 21FLPNS LATITUDE 30.57895
 COUNTY Santa Rosa WIN ID/STORET # G4NW0385 LONGITUDE -86.90017
 DATE 07/09/2019 TIME 9:50CTZ SAMPLING AGENCY FL DEP - NWROC
 SITE NAME Boiling Creek at Boat Launch RQ-2019-07-08-34
 FIELD ID/NAME G4NW0385 RECEIVING BODY OF WATER Yellow River WBID 517 Project Reference Streams

RIPARIAN ZONE / STREAM FEATURES

SB10 IN 79927

LIMS ID: 2101173

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☒ Silviculture ☒ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industry ☐ Other (Specify) <u>LAFO</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) <u>90 m</u> Depth (m)/Velocity (m/sec) Transect <u>15</u> m wide <u>0.9</u> m/s <u>0.5</u> m/s <u>0.5</u> m/s			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>718</u> Right Bank: <u>718</u>				Hydrologic Modification Score (per FT 3101) <u>1-2</u>			
High Water Mark: <u>1.0</u> + <u>72.0</u> = <u>73.0</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 ☒	
SUBSTRATE TYPE Assessment Tool: ☒ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon			WATER QUALITY		
Woody Debris (Snags) <u>0.9</u> <u>130</u> <u>7</u> Undercut Banks / Roots <u>0.1</u> <u>17</u> <u>83</u> Leaf Packs or Mat Aquatic Vegetation <u>16.5</u> <u>235</u> <u>7</u> Rock or Shell Rubble..... Sand..... <u>82.4</u> <u>170</u> <u>3</u> Mud / Muck / Silt Other Other			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>24.9</u> <u>5.07</u> <u>7.51</u> <u>90.6</u> <u>15.3</u> <u>0.01</u> <u>4.3</u> Mid: Bottom: <u>0.8</u> <u>24.9</u> <u>5.09</u> <u>7.50</u> <u>90.6</u> <u>15.3</u> <u>0.01</u> <u>4</u> VOB Meter ID: <u>155077</u> TOTAL DEPTH <u>1.3</u>		
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☐ ☐ ☐ ☒ Fish: ☐ ☐ ☐ ☒ Aquatic Plants: ☐ ☐ ☐ ☒ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐			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: _____ Algae Sample Taken? ☒ Yes ☐ No Sample Preserved? ☐ Yes ☒ No Lot Number: _____ Exp: _____ System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐		
AMBIENT FIELD CONDITIONS / NOTES: U.S. Army Special Forces Training stirred up water caused severe turbidity during sampling (Boat used). ☒ The antecedent hydrologic conditions have been met to my best knowledge.			SIGNATURE: <u>[Signature]</u> DATE: <u>07/09/2019</u>		

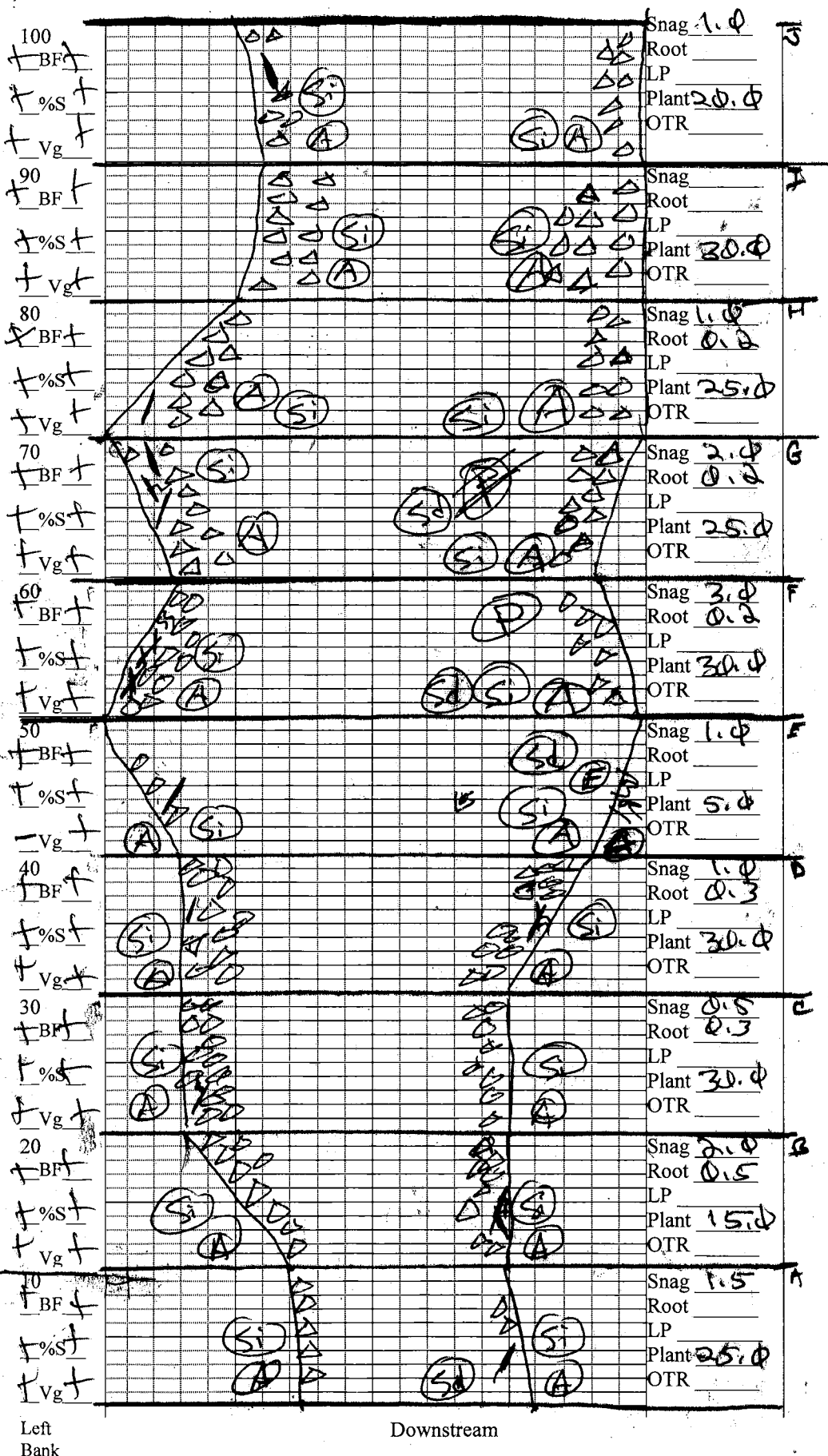
SAMPLING TEAM: Frank Butera, Matt Bearden

SIGNATURE:

DATE:

Stream/River Habitat Sketch Sheet, Form FD 9000-4 (June 1, 2001)

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



WIN ID G4NW0385

Substrates: Code key, draw proportionate habitat abundance.



Snags



Roots/undercut banks



Leaf Packs (or mats)



Macrophytes



P = Pool, Si = Silt
H = Hinge, Sd = Sand
Sand Bar

Velocity:

Note where velocity measures were taken. 90 m

Habitat Smothering:

Note areas (on map) where sand or silt is something 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.

Average width 14.2 m

Average depth 1.2 m

WQ & chemistry taken @ 0 m

Boiling Creek @ Boat Launch

Project. TMDL Studies

Sampled By/Date: 7/9/2019

F.B., M. Bearden

0 m Latt. 30.57902

0 m Long. -86.90013

100 m Latt. 30.57992

100 m Long. 86.89909

0-10 meter [A]	Habitat Area (M)	Left Bank	Right Bank
✓ 8.5	Snag 1.5	Bankfull	Bankfull
0m width (m) 0.2	Root 2.0	+	+
10m width 8.5	Leaf	Slope	Slope
Max Depth 1.0	Veg 25	+	+
Avg. Depth 72.0	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	(A) (S) (SD)		

10-20 meter [B]	Habitat Area (M)	Left Bank	Right Bank
	Snag 2.0	Bankfull	Bankfull
20m width 12	Root 0.5	+	+
	Leaf	Slope	Slope
Max Depth 1.0	Veg 15	+	+
Avg. Depth 72.0	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	(A) (S)		

20-30 meter [C]	Habitat Area (M)	Left Bank	Right Bank
	Snag 0.5	Bankfull	Bankfull
30m width 12	Root 0.3	+	+
	Leaf	Slope	Slope
Max Depth 72.0	Veg 30	+	+
Avg. Depth 1.0	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	(A) (S)		

30-40 meter [D]	Habitat Area (M)	Left Bank	Right Bank
	Snag 1.0	Bankfull	Bankfull
40m width 15	Root 0.3	+	+
	Leaf	Slope	Slope
Max Depth 72.0	Veg 35	+	+
Avg. Depth 1.5	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	(A) (S)		

40-50 meter [E]	Habitat Area (M)	Left Bank	Right Bank
	Snag 1.0	Bankfull	Bankfull
50m width 20	Root	+	+
	Leaf	Slope	Slope
Max Depth 72.0	Veg 5.0	+	+
Avg. Depth 1.5	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	(S) (SD) (A) Boat Launch		

50-60 meter [F]	Habitat Area (M)	Left Bank	Right Bank
	Snag 3.0	Bankfull	Bankfull
60m width 15	Root 0.2	+	+
	Leaf	Slope	Slope
Max Depth 72.0	Veg 30	+	+
Avg. Depth 1.5	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	(S) (SD) (A) (P)		

60-70 meter [G]	Habitat Area (M)	Left Bank	Right Bank
	Snag 2.0	Bankfull	Bankfull
70m width 20	Root 0.2	+	+
	Leaf	Slope	Slope
Max Depth 72.0	Veg 25.0	+	+
Avg. Depth 1.5	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	(S) (SD) (A)		

70-80 meter [H]	Habitat Area (M)	Left Bank	Right Bank
	Snag 1.0	Bankfull	Bankfull
80m width 15	Root	+	+
	Leaf	Slope	Slope
Max Depth 72.0	Veg 20	+	+
Avg. Depth 1.0	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	(A) (S)		

80-90 meter [I]	Habitat Area (M)	Left Bank	Right Bank
	Snag	Bankfull	Bankfull
90m width 15	Root	+	+
	Leaf 20	Slope	Slope
Max Depth 1.0	Veg 30	+	+
Avg. Depth 0.8	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	(A) (S)		

90-100 meter [J]	Habitat Area (M)	Left Bank	Right Bank
	Snag 1.0	Bankfull	Bankfull
100m width 15	Root	+	+
	Leaf	Slope	Slope
Max Depth 1.5	Veg 20	+	+
Avg. Depth 1.0	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	(S) (A)		

Station Name

Boiling Ck. at Boat Launch

Storet: G4NW0385

Date 7/09/2019

GPS Coordinates

0 meter

30.57902
86.94013

100 meter

30.57922
86.89909

Water Quality Measured at

0m

Stream Velocity and location.

0.5 m/s 90 meter mark

Number of Pools & Location

1 e 50m

Silt smothering @

A-J

Sand Smothering @

A, E, F, G

Algae Smothering @

A-J

Degraded Banks @

✗ E

Total Habitat	Sq. Meters	Percent
Snags	13	0.9
Roots	1.7	0.1
Leaf		
Veg	235	16.5
Rock		
Gravel		
Sand	1405	99
Sand Other	170	82.4
Other		
Sum 1° Habitat		17.6

SB10 20 79227
79927

Notes:

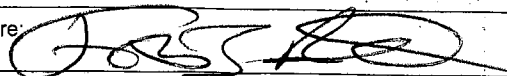
Bank stability = Right = 29 → 2.9 = optimal
Left = 30 → 3.0 = optimal

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

SAMPLING AGENCY: 21FLPNS		STORET STATION NUMBER: G4NW0385	DATE (MM/DD/YY): 07/09/2019	RECEIVING BODY OF WATER: Yellow River
REMARKS: WBID 517	COUNTY: Santa Rosa	LOCATION: Boiling Creek at Boat Launch	FIELD ID/NAME: G4NW0385	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <u>7</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 11	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed 10 9 8 <u>7</u> 6	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered 5 4 3 2 1
Substrate Availability <u>11</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 <u>11</u>	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>24</u>	Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec ≥0.33 0.31 0.29 0.27 >0.25 <u>20</u> 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>12</u> ----- Primary Score <u>1250</u> <u>12</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>19</u>	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. <u>20</u> <u>19</u> 18 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>12</u> Left Bank <u>10</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. <u>10</u> 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. 3 2 1
Riparian Buffer Zone Width Right Bank <u>9</u> Left Bank <u>10</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 4	Less than 6 m of buffer zone due to intensive human activities 3 2 1
Riparian Zone Vegetation Quality Right Bank <u>10</u> Left Bank <u>10</u> ----- Secondary Score <u>78</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 4	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). 3 2 1

128 TOTAL SCORE

Date: 07/09/19	Analyst: F. Butera	Signature: 
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SBIO ID: 79927
79227

HA ID: 16143

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Boiling Creek at Boat Launch					County: Santa Rosa		Date: 7/9/2019		Investigators: F. Butera	
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	STORET Station Number: G4NW0385

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

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%.

Secchi depth	72.0
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	☒
RG-2019-02-11-27	

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

SBIO Visit ID.	79927 79227
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RPS ID.	9398
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RG-2019-07-08-34

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

Waterbody: Bolling Creek at Boat Launch

Date: 07/19/14 County: Santa Rosa

Storet Number: G4NW0385

Analyst: F. Butera

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										Specime n collected (check)	HERBACEOUS SPECIES	Meter Mark										Specime n 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	
Alternanthera philoxeroides												Micranthemum glomeratum											
Bacopa caroliniana		1	1		1							Micranthemum umbrosum											
Bacopa monnieri												Myriophyllum aquaticum											
Bidens mitis												Najas guadelupensis											
Boehmeria cylindrica												Nuphar luteum											
Centella asiatica												Orontium aquaticum											
Ceratophyllum demersum												Panicum hemitomon											
Chara												Panicum repens											
Cicuta maculata												Panicum rigidulum											
Cladium jamaicense												Pistia stratioides											
Colocasia esculenta												Polygonum glabra											
Commelina diffusa												Polygonum hydropiperoides											
Commelina virginica												Polygonum punctatum											
Crinum americanum												Pontederia cordata											
Diodia virginiana												Potamogeton illinoensis											
Eichhornia crassipes												Ruellia simplex											
Eleocharis (wispy viviparous)												Sacciolepis striata											
Hydrilla verticillata												Sagittaria kurziana											
Hydrocotyle												Sagittaria lancifolia											
Hygrophila polysperma												Sagittaria latifolia											
Hymenocallis												Salvinia minima											
Lachnanthes caroliniana												Samolus parviflora											
Landoltia punctata												Saururus cernuus											
Lemna												Sparganium americanum											
Limnophila sessiflora												Typha											
Ludwigia leptocarpa												Vallisneria americana											
Ludwigia palustris												Zizania aquatica											
Ludwigia peruviana												Nymphaea											
Ludwigia repens												Nymphaea											
Luziola fluitans												Peltandra											
Hypericum fus												Acer rubrum											
Ilex												Taxodium											
Cliftonia																							
Cyrtia																							
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																							

Field ID G4NW0385

RPS ID 9398

SBIO ID 79227

VPDB ID 11423

LIMS ID 62160-000, F.A.C.

LIMS 202104123

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