



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name: Yellow River above Metts Creek

Date: 07/31/19

WIN/ Field ID: G4NW0370

WBID: 30C

Latitude: 30.672800

County: Okaloosa

ORG ID: 21FLPNS

Longitude: -86.738460

Receiving Body of Water: Blackwater Bay

RQ-2019- 03-18-24

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment				
<i>S. Hodge</i> <i>N. Mulkey</i>										☒ Sample Container	☐ Van Dorn	☐ Pole		
										☐ Carboy	☒ Syringe			
										☐ Dipper	☐ Other			
										Depth Measured with				
										Equipment ID				
										Collection Method				
										☒ Wading	☐ Canoe/Kayak			
										☐ From Shore	☐ Electric Motor			
										☐ Other	☐ Gasoline Motor			
Water Level: Dry/ Pooled/ <u>Low</u> / Normal / High / Flooded					Meter ID# <u>154179</u>					Matrix: <u>Fresh</u> / Marine / DI				
Photos: <u>Yes</u> / No					Flow: No Flow / Intestinal / <u>Flowing</u> / NA					Tide: Rising/ Falling/ Slack/ <u>NA</u>				
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 (umhos/cm)	Temp. (C°)				
EST		<u>1.4</u>		<u>VOB</u>										
<u>CEN</u>	<u>1020</u>		<u>0.2</u>		<u>7.63</u>	<u>93.9</u>	<u>6.14</u>	<u>0.02</u>	<u>43.6</u>	<u>26.5</u>				
Biological Samples Collected: None <u>HA</u> <u>SCI</u> <u>RPS</u> Algae ID LVS LVI Other:														
SBIO ID Numbers: SBIO-ID: 80061 HA-ID: 16167 RPS-ID: 9414 Macrophyte-ID: N/A LIMS#: 2107813														
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		<u>9010030</u>	<u>4/10/20</u>	☒ 2			
Metals		☒ W-ICPMS ☒ W-ICP					☒ Ice ☒ HNO3		<u>9099030</u>	<u>4/09/20</u>	☒ 2			
Filtered Nutrients		☒ W-PO4-F ☒ Field Filtered 0.45 um Filter					☒ Ice		<u>15159049</u>					
Chlorophyll		☒ CHLSUITE-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					☐ Ice							
		☐ PCR-HF183 ☐ PCR-DG3 ☐ PCR-GFD												
Tracers		☒ W-E8321-DI ☒ W-E8321-MS					☐ Ice							
Pesticides		☒ W-PSNP-TQ					☒ Ice							
Phytoplankton		☐ DTY-QN-C ☐ PKD-QN-C												

Notes:

Field/WIN ID →



G4NW0370

Location:

Yellow River above Metts Creek

Signature:

S. Hodge

Date:

7/31/19

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

22

8/7/19

Migrate Data to WIN:

Verify Data In WIN:

(Initials/Date)

(Initials/Date)

(Initials/Date)

(Initials/Date)

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

SAMPLE ID 80061 ORG ID 21FLPNS LATITUDE 30.672982
 COUNTY Oklahoma STORET # CHNW0370 LONGITUDE 96.78032
 DATE 7/31/19 TIME 1420 SAMPLING AGENCY FDEP NWROC
 SITE NAME Yellow River above Meigs Creek
 FIELD ID/NAME CHNW0370 RECEIVING BODY OF WATER Blackwater Bay

RIPARIAN ZONE / STREAM FEATURES

RQ-2019-03-18-24

LIMS ID 2107813

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industry ☐ Other (Specify) ☐								Landscape Development Intensity Index (LDI) N/A
Local Watershed Erosion (select one): ☐ None ☐ Slight ☐ Moderate ☐ Heavy				Typical Width (m) Depth (m)/Velocity (m/sec) Transect				
Local Watershed NPS Pollution: ☐ No evidence ☐ Slight ☐ Moderate ☐ Heavy				60 m wide				
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>714</u> Right Bank: <u>718</u>				Hydrologic Modification Score (per FT 3101) ☐				
High Water Mark: <u>2.0</u> + <u>1.4</u> = <u>3.4</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No				
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 ☐ BioRecon		WATER QUALITY			
Invert ☐ PERI ☐ % Coverage # Times Sampled # Times Sampled		Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M)			
Woody Debris (Snags) <u>14</u> <u>57</u>		Top: <u>0.3</u> <u>26.5</u> <u>6.14</u> <u>7.63</u> <u>93.9</u> <u>43.6</u> <u>0.02</u> <u>1.4</u>			
Undercut Banks / Roots <u>14</u> <u>57</u>		Mid: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☒ VOB			
Leaf Packs or Mat <u>105</u> <u>8</u>		Bottom: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐			
Aquatic Vegetation ☐ ☐		Meter ID: <u>154179</u>			
Rock or Shell Rubble ☐ ☐		Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐		Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐	
Sand <u>98.2</u> <u>43</u>		Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No		Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) ☐	
Mud / Muck / Silt <u>1</u> <u>1</u>		Lot Number: Exp:		Clarity Clear ☐ Slightly Turbid ☒ Turbid ☐ Opaque ☐	
Other ☐ ☐		Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No		Lot Number: Exp:	
Other ☐ ☐		System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐			
ABUNDANCE Not Obs. Rare Common Abundant		AMBIENT FIELD CONDITIONS / NOTES: <u>low water level</u>			
Periphyton: ☐ ☒ ☐ ☐		☒ The antecedent hydrologic conditions have been met to my best knowledge.			
Fish: ☐ ☐ ☒ ☐		SAMPLING TEAM <u>Nathan Miley / Stephen Sule</u>		SIGNATURE: <u>[Signature]</u>	
Aquatic Plants: ☒ ☐ ☐ ☐		DATE: <u>7/31/19</u>			
Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐					

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

SAMPLING AGENCY: <i>FDOP NWROC</i>		STORET STATION NUMBER: <i>6YMWQ370</i>	DATE (MM/DD/YYYY): <i>07/31/19</i>	RECEIVING BODY OF WATER: <i>Blackwater Bay</i>
REMARKS: <i>low water level</i>	COUNTY: <i>Cherokee</i>	LOCATION: <i>Yellow River above Mills</i>	FIELD ID/NAME: <i>6YMWQ370</i>	

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 <i>7</i>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <i>3</i>	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 <i>20</i>	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 <i>5</i> ----- Primary Score <i>35</i>	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 <i>20</i>	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 <i>10</i> Left Bank <i>10</i>	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 <i>10</i> Left Bank <i>10</i>	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 <i>10</i> Left Bank <i>10</i> ----- Secondary Score <i>80</i>	10 9	8 7 6	5 4	3 2 1

115 TOTAL SCORE

Date: <i>7/29/19</i>	Analyst: <i>Nathan Mills</i>	Signature: <i>[Signature]</i>
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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).

STORET: 64W0370

Location: Yellow River

above Miller Creek

Project: SMP

Sampled By: N. Mulkey / S. Jank

Date: 7/31/19

100	BF	+	Snag 1.0	Depth	
	%S	+	Root 0.1	Width	
	Vg	-	LP		
90	BF	+	Plant		
	%S	+	OTR		
	Vg	-	Snag 3.0	Depth	
	BF	+	Root 0.2	Width	
	%S	+	LP 3.0		
	Vg	-	Plant		
80	BF	+	OTR		
	%S	+	Snag 4.0	Depth	
	Vg	-	Root 4.0	Width	
	BF	+	LP		
	%S	+	Plant		
	Vg	-	OTR		
70	BF	+	Snag 0.2	Depth	
	%S	+	Root 0.1	Width	
	Vg	-	LP 0		
	BF	+	Plant		
	%S	+	OTR		
	Vg	-	Snag 1.0	Depth	
60	BF	+	Root 1.0	Width	
	%S	+	LP		
	Vg	-	Plant		
	BF	+	OTR		
	%S	+	Snag 0.7	Depth	
	Vg	-	Root 1.0	Width	
50	BF	+	LP		
	%S	+	Plant		
	Vg	-	OTR		
40	BF	+	Snag 7.0	Depth	
	%S	+	Root 1.3	Width	
	Vg	-	LP		
	BF	+	Plant		
	%S	+	OTR		
	Vg	-	Snag 0.7	Depth	
30	BF	+	Root 1.5	Width	
	%S	+	LP		
	Vg	-	Plant		
	BF	+	OTR		
	%S	+	Snag 6.0	Depth	
	Vg	-	Root	Width	
20	BF	+	LP		
	%S	+	Plant		
	Vg	-	OTR		
	BF	+	Snag 5.0	Depth	
	%S	+	Root	Width	
	Vg	-	LP		
10	BF	+	Plant		
	%S	+	OTR		
	Vg	-			

Left
Bank

Downstream

Substrates: Code key, draw proportionate habitat abundance.

☒ Snags 38.1 .64

☒ 8.4 .14
Roots/undercut banks

☒ .005
Leaf Packs (or mats)

☐ 0.80
Macrophytes

Velocity: 0.5
Note where velocity measures were taken: 80 m .33

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 60 m

Average depth 1.4 m

WQ & chemistry taken @ m

0 m Latt.

0 m Long.

100 m Latt 30.67339

100 m Long 86.73728

6000

RPS ID: 9414

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

 Site: Yellow River above Motts Creek County: Oregon Date: 7/31/19 Investigators: Nathan Walker / Stephen J. Jode
STORET Station Number: CHW0370

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

Secchi depth 1.4 fath
 Estimated? VOB
 # points ranked 4-6 0
 total points assessed 99
 % points ranked 4-6 0

Check accompanying data collected at same site/date:
 Algal mat sample ☐
 Linear Veg Survey ☒
 Habitat Assessment ☒
 SCI/Biorecon ☒
 Water sample ☒
 RQ: 2019-03-18-24

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 ID 80061

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%.

[illegible]